

Exhibit A

Jury Trial, Volume

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UNITED STATES DISTRICT COURT
EASTERN DISTRICT OF TEXAS
LUFKIN DIVISION

ANASCAPE, LTD.	DOCKET 9:06CV158
VS.	MAY 5, 2008
	10:36 A.M.
MICROSOFT CORP., ET AL	LUFKIN, TEXAS

VOLUME 1 OF __, PAGES 1 THROUGH 198

REPORTER'S TRANSCRIPT OF JURY TRIAL

BEFORE THE HON. RON CLARK
UNITED STATES DISTRICT JUDGE, AND A JURY

APPEARANCES:

FOR THE PLAINTIFF:

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1	FOR THE PLAINTIFF (CONTINUED):	1	(REPORTER'S NOTES ANASCAPE VS. MICROSOFT,
2	CLAUDE E. WELCH	2	JURY TRIAL VOLUME 1, 10:36 A.M., MONDAY, 05/05/2008,
3	LAW OFFICE OF CLAUDE E. WELCH	3	LUFKIN, TEXAS, HON. RON CLARK PRESIDING)
4	POST OFFICE BOX 1574	4	(OPEN COURT, ALL PARTIES PRESENT, PROSPECTIVE
5	LUFKIN, TEXAS 75902	5	JURORS NOT PRESENT)
6	FOR THE DEFENDANT NINTENDO OF AMERICA:	6	THE COURT: Good morning, ladies and
7	ROBERT J. GUNTHER, JR.	7	gentlemen. I'm Ron Clark, United States District Judge.
8	WILMER HALE - NEW YORK	8	Welcome to your courthouse in Lufkin.
9	399 PARK AVENUE	9	This morning we're starting the voir dire in
10	NEW YORK, NEW YORK 10022	10	a case to be tried this week and going into next week.
11	LAWRENCE LOUIS GERMER	11	It's a patent case. And this part of the trial, the
12	CHARLES W. GOEHRINGER, JR.	12	voir dire, is an opportunity for me to ask you some
13	GERMER GERTZ	13	questions and then for the lawyers to ask you some
14	550 FANNIN	14	questions to determine who will sit on the jury.
15	SUITE 500	15	Now, we're not trying to pry into your
16	BEAUMONT, TEXAS 77701	16	private life; but we need you to give very honest
17	JAMES S. BLANK	17	answers. If you're wondering whether a question applies
18	LATHAM & WATKINS	18	to you, if you'll just raise your hand, we'll find out.
19	885 THIRD AVENUE	19	If there is some question you really don't want to
20	NEW YORK, NEW YORK 10022	20	answer in front of the entire panel, if you'll raise
21	JOSEPH S. PRESTA	21	your hand and let me know, then at the end of the
22	ROBERT W. FARIS	22	questioning, I'll call you up and we'll question you
23	NIXON & VANDERHYE	23	separately here just in front of the lawyers.
24	901 N. GLEBE ROAD	24	To start off with the case, we're going to
25	11TH FLOOR	25	ask each of you to give some answers to some basic
	ARLINGTON, VIRGINIA 22203		
	COURT REPORTER: CHRISTINA L. BICKHAM, CRR, RMR		
	FEDERAL OFFICIAL REPORTER		
	300 WILLOW, SUITE 221		
	BEAUMONT, TEXAS 77701		
	PROCEEDINGS REPORTED USING COMPUTERIZED STENOTYPE;		
	TRANSCRIPT PRODUCED VIA COMPUTER-AIDED TRANSCRIPTION.		
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1	INDEX	1	information. It's these questions up here on the
2	PAGE	2	screen. They're also on that board there. So, I would
3	INTRODUCTION OF PROSPECTIVE JURORS 5	3	ask that you one at a time -- the court security officer
4	VOIR DIRE BY MR. CAWLEY 30	4	will hand Juror Number 1 a microphone, and if you'll
5	VOIR DIRE BY MR. GERMER 38	5	just go ahead and read off the answers. You don't have
6	JURY SEATED 57	6	to read out the question, but if you'll just go ahead
7		7	and read off the answers to the questions. We'll start
8	DIRECT EXAMINATION OF BRAD ARMSTRONG 138	8	with -- go ahead, sir.
9		9	PROSPECTIVE JUROR: My name is Shawn Lucena.
10	INDEX OF EXHIBITS	10	I live in Nacogdoches, Texas. I'm a middle school
11	Plaintiff's Exhibit 447 145	11	teacher for the Nacogdoches ISD. This is my first year
12	Plaintiff's Exhibit 426 146	12	to teach. My spouse's name is Robin. She's an LPC at
13	Plaintiff's Exhibit 428 149	13	the Rusk State hospital. She works for UTMB. She's
14	Plaintiff's Exhibit 425 150	14	worked there for three years, and I have never served on
15	Plaintiff's Exhibit 4 156	15	a jury before.
16	Plaintiff's Exhibit 4 156	16	THE COURT: Thank you.
17	Plaintiff's Exhibit 4 157	17	PROSPECTIVE JUROR: Linda Woods, Livingston,
18	Plaintiff's Exhibit 250 166	18	Texas, teacher, Cleveland Independent School District,
19	Plaintiff's Exhibit 2 191	19	29 years of service there.
20	Plaintiff's Exhibit 2 191	20	THE COURT: What grade, ma'am?
21	Plaintiff's Exhibit 1 192	21	PROSPECTIVE JUROR: Kindergartners.
22	Plaintiff's Exhibit 114 194	22	My husband is Bennie Woods. He works for
23	Plaintiff's Exhibit 114 194	23	Wal-Mart, mid management. He's been there 17 years. My
24		24	prior jury service was criminal court in Livingston.
25	Defendant's Exhibit 1 120	25	THE COURT: Did they reach a verdict, ma'am?

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<p style="text-align: right;">Page 154</p> <p>1 moves around.</p> <p>2 And, so, the final one -- if the handle turns</p> <p>3 like this (demonstrating), that would be kind of the</p> <p>4 same thing as if I would turn my head like this. It's a</p> <p>5 yaw. It's a rotating motion. When that happens, this</p> <p>6 rocker here -- you can see this one here is moving and</p> <p>7 none of the others are moving.</p> <p>8 And, so, that's a way of resolving all of</p> <p>9 these things down to where they can all be put onto a</p> <p>10 circuit board and you don't have to individually wire</p> <p>11 them.</p> <p>12 BY MR. CAWLEY:</p> <p>13 Q. Thank you, Mr. Armstrong. Could you take the</p> <p>14 witness stand again?</p> <p>15 Now, Mr. Armstrong, you've shown us several</p> <p>16 of your prototypes and described quite a few of your</p> <p>17 ideas to it. Did you have several ideas in the Eighties</p> <p>18 and in the Nineties that came together to make a better</p> <p>19 video controller?</p> <p>20 A. Yes, sir, I did.</p> <p>21 Q. Did you have a vision about how to do that?</p> <p>22 A. Yes, sir.</p> <p>23 Q. Could you describe that to the jury?</p> <p>24 A. Well, the -- as I just mentioned, on this</p> <p>25 particular advance, I was just thinking and thinking and</p>	<p style="text-align: right;">Page 156</p> <p>1 Q. Okay. Do you have Plaintiff's Exhibit 4 in a</p> <p>2 binder in front of you?</p> <p>3 MR. CAWLEY: Or I guess I still have it, your</p> <p>4 Honor, if I can approach.</p> <p>5 THE COURT: You may.</p> <p>6 MR. CAWLEY: And there's a couple more I can</p> <p>7 take up while I'm at it.</p> <p>8 A. Thank you.</p> <p>9 MR. CAWLEY: If you could bring up the first</p> <p>10 page of Plaintiff's Exhibit 4.</p> <p>11 A. Yes, sir.</p> <p>12 BY MR. CAWLEY:</p> <p>13 Q. What is that?</p> <p>14 A. This is a patent application I filed in 1996.</p> <p>15 Q. All right. Is that one of your early applications</p> <p>16 relating to video games?</p> <p>17 A. Yes, sir.</p> <p>18 Q. And did you file a large patent application in</p> <p>19 1996?</p> <p>20 A. Yes, sir, I did.</p> <p>21 Q. Is that what has been referred to before in this</p> <p>22 case as your "warehouse"?</p> <p>23 A. Yes, sir.</p> <p>24 Q. And tell us why you call it that.</p> <p>25 A. Well, it was just -- it was really a lot of</p>
<p style="text-align: right;">Page 155</p> <p>1 thinking about it. And as I said, you know, I'd go to</p> <p>2 bed sleeping -- go to sleep thinking about it; and I had</p> <p>3 a dream in which the -- there was a golden ball and I</p> <p>4 could tell that that worked in 6 degrees of freedom -- I</p> <p>5 just knew that in my dream. And it vibrated and</p> <p>6 vibrated and then it broke apart and it broke apart into</p> <p>7 three two-way -- there's six axes. There was three</p> <p>8 two-ways like this (demonstrating); so, each one was</p> <p>9 going left and right and up and down like that. And</p> <p>10 they all floated down like this.</p> <p>11 And I said, "Oh, that's really interesting</p> <p>12 because they were" -- you know, now they were all onto a</p> <p>13 sheet, right? But I didn't -- still didn't know how to</p> <p>14 translate it and I'm looking at it trying to understand</p> <p>15 it and they vibrated again and they broke apart like</p> <p>16 that and, so, there were six of them like that. And I</p> <p>17 said, "Oh, I can do that. I know how to do that." And</p> <p>18 it was a big aha moment. It was -- I was just -- I just</p> <p>19 woke up, and I was so happy. And the next day I started</p> <p>20 building this particular concept study.</p> <p>21 Q. All right. Mr. Armstrong, what had you been doing</p> <p>22 along the way as you were describing these ideas to</p> <p>23 us -- what had you been doing to protect your ideas</p> <p>24 about better video controllers?</p> <p>25 A. Well, in 1992 I filed a patent application.</p>	<p style="text-align: right;">Page 157</p> <p>1 technology. It had rumble. It had proportional</p> <p>2 sensors, proportional buttons. It had 6 degrees of</p> <p>3 freedom. It had 3-D graphics control. It had the</p> <p>4 sheet-connected sensors I was telling you about. It was</p> <p>5 just -- it was a wealth of inventions in that patent</p> <p>6 filing.</p> <p>7 Q. Now, when you filed that application, this</p> <p>8 Plaintiff's Exhibit 4 that has an application in it, did</p> <p>9 you file claims?</p> <p>10 A. Yes, sir, I did.</p> <p>11 Q. Did you claim everything you could think of in the</p> <p>12 application, the claims that you filed in 1996?</p> <p>13 A. No, sir.</p> <p>14 Q. Why not?</p> <p>15 A. Well, I just filed enough to get a good start. My</p> <p>16 understanding is that the Patent Office allows you to</p> <p>17 write claims at any later date so long as they are the</p> <p>18 original invention that you filed in that original</p> <p>19 patent application.</p> <p>20 Q. Did you claim everything you could think of in</p> <p>21 the --</p> <p>22 A. No, sir.</p> <p>23 Q. -- '96 application?</p> <p>24 Why not?</p> <p>25 A. Well, it was just -- I just was trying to get a</p>

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<p>1 good start as -- 2 Q. Okay. 3 A. -- a practical matter. 4 Q. How did you start? What did you claim first in 5 your '96 application? 6 A. There was some 6-degree-of-freedom, single input 7 member controllers. 8 Q. All right. And taking some of the things in this 9 application you filed in 1996, did you file another 10 application in the year 2000? 11 A. Yes, sir, I did. 12 Q. And what did that include? 13 A. It's the same technology. It's a daughter 14 application of the original parent that I filed in 1996. 15 Q. What's the relationship between the 1996 16 application and the 2000 application? Explain that to 17 us again. 18 A. The 2000 application is based on the 1996 19 application. 20 Q. Okay. And you talked about "parent" and 21 "daughter." 22 A. Yes. 23 Q. What do you mean by that? 24 A. Well, an originally-filed patent application like I 25 filed in 1996 is called a "parent patent application."</p>	<p>1 the key features of your invention as it's described in 2 this 2000 application. Just so we're all clear, is it 3 the 2000 application that the Patent Office examined and 4 eventually granted you a patent on that's the '700 5 patent in this lawsuit today? 6 A. Yes, sir. 7 Q. And is that in front of you, that patent? 8 A. It probably is, yes, sir. 9 Q. I think I gave you the original of it, didn't I? 10 A. Are you talking about this? 11 Q. Yes. 12 A. Yes, sir. 13 Q. Is that the original -- 14 A. Yes, this is -- 15 Q. -- copy? 16 A. This is a certified copy of that patent. 17 Q. Let's talk about some of the key aspects of your 18 invention, Mr. Armstrong. Tell us about the first one. 19 A. Rumble is -- rumble is a technology that I 20 invented. It's a way of getting a sense of touch into 21 this world because, you know, it's all just graphic 22 images, all visual. And we use our visual sense and 23 that's an important sense, but I wanted to make it more 24 compelling. And, so, I came up with a way to make a 25 sense of touch into that world and --</p>
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<p>1 And, then, in the future inventors file patent 2 applications that are called "daughters" or "children 3 application"; and it's the same patent application, in 4 essence. 5 Q. Is that daughter or child application what Judge 6 Clark has told us is called a "continuation 7 application"? 8 A. Yes, sir, it is. 9 Q. Why is it called that -- "continuation"? 10 A. Because it's just a way that the Patent Office 11 rules are. You're allowed to continue your patent 12 application, to write more claims at a later time that 13 are still based in the original 1996 or the original 14 parent patent application. 15 Q. And why did you file this continuation application 16 in 2000? 17 A. I wanted to have more -- pull more of my inventions 18 out of the warehouse. 19 Q. Are there any differences between the 1996 20 application and the 2000 application? 21 A. Yes, there are. 22 Q. What are those differences? 23 A. I made some language changes just to clarify and to 24 kind of get to the heart of the invention sooner. 25 Q. Okay. Now I'd like to talk to you about some of</p>	<p>1 Q. Have you brought anything to court with you today 2 to be able to demonstrate to the jury how this rumble 3 works? 4 A. Yes, sir, I do have something. 5 MR. CAWLEY: May I approach, your Honor? 6 THE COURT: You may. 7 A. Thank you. 8 BY MR. CAWLEY: 9 Q. Mr. Armstrong, let's start with the unit that you 10 can see most clearly that you have in your hand there. 11 MR. CAWLEY: And, your Honor, since this 12 again is small, can the witness -- 13 THE COURT: You may. 14 MR. CAWLEY: -- step down again? 15 THE COURT: Go ahead and step down, sir. 16 Go ahead and put that microphone back up 17 there, too, please. 18 THE WITNESS: Yes, sir. 19 THE COURT: And, ladies and gentlemen, let me 20 mention. If you've been in a court before or you've 21 seen on TV, the lawyers will go through this procedure 22 by asking to have an exhibit admitted and the court 23 formally admits it. To save you time, I've done almost 24 all of that ahead of time. So, if a lawyer mentions an 25 exhibit number, it's in; and you'll get to see it. If</p>

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<p style="text-align: right;">Page 162</p> <p>1 there's going to be objection, you'll hear it. But if 2 there's no objection, we've already covered that earlier 3 just to save time so that all those words are cut out. 4 So, if you're wondering why I haven't been saying that's 5 admitted or that's not admitted, it's because we did 6 that before you got here to save your time. There will 7 be a few that there may have to be some discussion like 8 that. When that comes up, you'll see it. But, 9 otherwise, if it's mentioned in front of you, it will 10 come back to the jury room for you, if it is an admitted 11 exhibit and not just a demonstrative. A demonstrative 12 is something that you're shown to look at, but it's not 13 a formal exhibit. Those generally are not numbered, or 14 they don't have either a plaintiff's number or 15 defendant's number. 16 Go ahead, counsel. 17 MR. CAWLEY: Thank you, your Honor. 18 BY MR. CAWLEY: 19 Q. Now, Mr. Armstrong, now that you're there with the 20 microphone, do you have something that you can use to 21 demonstrate to the jury rumble and how it works? 22 A. Yes, sir, I do. 23 This is a very simple thing. This is just a 24 clear plastic box with a battery inside of it, a 9-volt 25 battery, just like we have and -- everybody has them.</p>	<p style="text-align: right;">Page 164</p> <p>1 Q. Now, in the controller that you described to the 2 Patent Office, Mr. Armstrong, was that weight sitting 3 out in the open like it is there? 4 A. Yes, sir, it was. 5 Q. And did it produce that kind of vibration like the 6 one you have in your hand? 7 A. Yes, sir. This is just like what I told the Patent 8 Office about. 9 Q. All right. Have you looked for that kind of device 10 in a Nintendo GameCube controller? 11 A. Yes, sir, I have. 12 Q. Do you have something that can demonstrate that? 13 A. Yes, sir, I can. 14 This is -- I take apart everything. I always 15 have, and I always will probably. And especially if I 16 think that it's my invention that somebody else is 17 making. 18 This is a motor that's out of a Nintendo 19 GameCube controller. Now, you don't see the weight 20 because the weight is built into the inside. But you 21 can tell that it's doing the same thing (demonstrating) 22 when I turn it on. It's vibrating. And the reason why 23 it vibrates is because there is a weight inside this 24 motor that's off to the side and it's just -- I mean, 25 they kind of hid it inside, but it's -- that's exactly</p>
<p style="text-align: right;">Page 163</p> <p>1 And then I have a switch here, and that's all just to 2 demonstrate. 3 The important part is right up here on top 4 (indicating), and that is just a little electric motor. 5 There's nothing fancy. It's the same electric motor 6 that you can see in any kid's toy or all kinds of 7 things. But the really interesting part is that it has 8 a weight, and you can see the weight is kind of hanging 9 down there. I'll turn it. It's a weight off to one 10 side. And that's what I would call an "offset weight." 11 And, generally speaking, when engineers build 12 motors or -- they try to make it all very balanced so it 13 runs very smoothly. And just like you balance your 14 tires on your car when you get new tires, to make the 15 weight real smooth and even all the way around, this is 16 just the exact opposite. We're putting weight 17 intentionally off to the side and so that when it runs, 18 it vibrates. And that's what -- I'm pressing the 19 button, and you can (demonstrating) -- while you can't 20 feel it, I sure can feel it. But you can hear it 21 vibrates and you can tell that it's -- that I feel it in 22 my fingertips and that -- when this is in a 3-D graphics 23 controller, you go from having only image into now all 24 of a sudden you can have a sense of touch, which is 25 stimulating.</p>	<p style="text-align: right;">Page 165</p> <p>1 what's happening. 2 Q. Mr. Armstrong, that microphone seems to be going on 3 and off. So -- 4 A. Maybe the battery's low. 5 Q. Why don't you put that down and return to the stand 6 so -- 7 A. I'll try to speak up. I hope you don't feel like 8 I'm yelling at you. 9 Q. Well, since there is one to go, maybe you better 10 speak up. 11 But before you go, have you taken that round 12 motor housing that you got out of the Nintendo GameCube 13 apart to -- 14 A. Yes, sir, I have. 15 Q. -- confirm that it has a weight in it? 16 A. Yes, sir. 17 Q. All right. And what's the second demonstration of 18 a Nintendo use of this idea that you can show to the 19 jury? 20 A. This is the same thing but smaller, and it 21 (demonstrating) -- can you hear that? It's vibrating. 22 THE WITNESS: Judge, can they feel the 23 vibrating? 24 THE COURT: You need to just show it to them, 25 sir.</p>

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<p style="text-align: right;">Page 166</p> <p>1 A. Okay. So, it's -- can you hear it? It's vibrating 2 in my fingers. And this is the -- it's a motor and it 3 has a weight off to the side inside the shell and, so, 4 when it runs, it vibrates and that gives the tactile 5 sensation that is in the Wii remote. 6 BY MR. CAWLEY: 7 Q. Wait a minute. You say you got that out of the 8 Nintendo Wii? 9 A. Yes, sir. 10 Q. That's the device that we heard so much about in 11 opening statement? 12 A. Yes, sir. 13 Q. Did you take that little button-looking thing, the 14 motor on the top of that, apart to see if it has a 15 weight in it? 16 A. Yes, sir, I did. 17 Q. Was it offset like the weight you described? 18 A. Yes, sir. 19 Q. All right. Why don't you take your seat again, if 20 you would. 21 A. Okay. 22 Q. Look in the notebook in front of you, if you would, 23 and look at Plaintiff's Exhibit 250. 24 MR. CAWLEY: I'd like to call up on the 25 screen the page that's been marked as 41762.</p>	<p style="text-align: right;">Page 168</p> <p>1 BY MR. CAWLEY: 2 Q. Can you use that pointer to explain to the jury 3 what we're looking at in this page from your inventor's 4 notebook? 5 A. Yes. I would point first to this (indicating), the 6 image here on the upper left. And that is a -- right in 7 the top part of it, it says "motor." And then here it 8 says "offset weight." And that is -- the line is shown 9 to this little -- this is the weight that's offset on 10 the motor, and that is to provide a vibration just like 11 we saw. And, of course, this is, you know, 1989 when I 12 conceived of this for 3-D graphics controllers. 13 Q. Was this 1989 the date on this page of your 14 inventor's notebook? 15 A. Yes, sir. 16 Q. Did you disclose this idea of rumble in your 1996 17 patent application? 18 A. Yes, sir, I did. 19 Q. Can you show us where that is? 20 A. Yes. This is a drawing, Figure Number 21, in the 21 1996 -- the warehouse patent application that I made 22 that has all of that technology in it. The 23 orange-shaped drawing is the motor with the offset 24 weight. 25 Q. Can you read us the words that you used --</p>
<p style="text-align: right;">Page 167</p> <p>1 BY MR. CAWLEY: 2 Q. First of all, as long as we're looking at the first 3 page, what is this? 4 A. This is -- I think it's the first page of my 5 inventor's notebook from 1989. 6 Q. Okay. You began this notebook in 1989; is that 7 right? 8 A. Yes, sir. 9 Q. And it continues on to which -- 10 A. 1992. 11 Q. All right. 12 MR. CAWLEY: Could you go to page 41762? 13 A. Yes, sir. 14 BY MR. CAWLEY: 15 Q. What's this? 16 A. This is a page out of my inventor's notebook. The 17 date is November -- well, there's three signatures. 18 Dates November 3rd, November 6th, and November 7th. 19 This is a drawing of the motor with the offset weight. 20 Q. Mr. Armstrong, in light of the problems you had 21 with that microphone, could we trust you with a laser 22 pointer? 23 MR. CAWLEY: Your Honor, may I approach the 24 witness? 25 THE COURT: You may.</p>	<p style="text-align: right;">Page 169</p> <p>1 A. Yes, sir. 2 Q. -- to describe this idea in your '96 patent 3 application? 4 A. Right. It says: Figures 20 through 31 show 5 another preferred embodiment, such a device has 6 additional benefits including space to place active 7 tactile feedback in a still small handle, et cetera. 8 Q. Okay. There are some words there that we haven't 9 heard before; so, maybe we could take a minute and let 10 me ask you about them. 11 The first line says "another preferred 12 embodiment." What do you understand that to mean? 13 A. It means that there are many different inventions 14 in this patent application. The way that those are -- 15 those are referred to as "preferred embodiments," and 16 that's just one way to describe the invention. 17 Q. Okay. Now, in that phrase "preferred embodiment," 18 what's the meaning or the implication of the word 19 "preferred"? 20 A. Well, it just means something that -- that you draw 21 attention to as a good invention in there. 22 Q. Does a preferred embodiment mean, in your 23 understanding, that it's the only way to do it? 24 A. No, sir. 25 Q. What does it mean?</p>

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<p style="text-align: right;">Page 170</p> <p>1 A. Well, it's one way to do it; and it's a good way. 2 Q. Does it mean that someone could still be using -- 3 or infringing the patent and do it some other way that's 4 not in the preferred embodiment? 5 MR. GUNTHER: Objection, your Honor. 6 A. Yes, sir. 7 THE COURT: Hold on. Yes? 8 MR. GUNTHER: Objection, calls for a legal 9 conclusion. 10 THE COURT: Overruled. 11 MR. GUNTHER: Thank you, your Honor. 12 BY MR. CAWLEY: 13 Q. First of all, Mr. Armstrong, anytime there is an 14 objection, please -- I know you're eager to answer the 15 question but -- you went ahead and answered that one, 16 but let's hear the answer again since the judge has 17 overruled the objection. 18 A. Could you ask the question again? 19 Q. Okay. If preferred embodiment means one way to do 20 it -- 21 A. Yes, sir. 22 Q. -- is it your understanding that someone could do 23 it a different way but still be infringing the patent? 24 A. Oh, yes, sir. Absolutely. 25 Q. And is that because the preferred embodiment is</p>	<p style="text-align: right;">Page 172</p> <p>1 talk about it today. The words change over time, but 2 that's -- it's the same technology. 3 Q. And do those three devices that are sitting in 4 front of you that you showed to the jury, the push 5 buttons and the little motors that whirl around and that 6 vibrate -- 7 A. Yes, sir. 8 Q. -- do those provide active tactile feedback? 9 A. Yes, sir, they certainly do. 10 Q. Including the ones that you took out of the 11 Nintendo controllers? 12 A. Yes, sir. 13 Q. All right. You've told us about the first feature 14 of your invention that you filed for in 2000 that became 15 the '700 patent. What's the next feature of your 16 invention that you want to tell us about? 17 A. Proportional buttons. 18 Q. What does that mean? 19 A. Well, the -- a button is a kind of -- if you 20 think -- a button is a switch. And if you think of, 21 like, the light switch when you go into your home is 22 mostly -- most homes is just -- it's on, or it's off. 23 And, so, that's just -- it's an on/off switch. But you 24 might put a dimmer in there, in which case it's more 25 than just on or off; it's something in between. It's</p>
<p style="text-align: right;">Page 171</p> <p>1 preferred but it's not necessarily the only way? 2 A. Yes, sir. That is very accurate. 3 Q. All right. Then in line 3, you said in your patent 4 application in '96 that you're giving space to place 5 active tactile feedback. What do those three words 6 mean, "active tactile feedback"? 7 A. Active tactile feedback is the vibration from the 8 electric motor with the weight set off to the side. I 9 used the word "active" because it's a motor. It's a 10 very active thing. I had a different kind of technology 11 in this, also, called "passive tactile feedback" that 12 didn't have a motor but it created some tactile feed -- 13 some sense of touch, also. But the one that had the 14 motor was called "active tactile feedback." 15 Q. That tells us about active, but I also want to make 16 sure we understand. What is tactile feedback? 17 A. Tactile feedback is just -- it's just a way of 18 saying touch. It's just a way of saying that this 19 invention can give you a sense of touch so that when 20 you -- you can feel it in your fingers or wherever it 21 would be touching your skin. You can feel it and that 22 sense of touch, that's tactile feedback. 23 Q. Is tactile feedback another way of saying what 24 we've been calling "rumble"? 25 A. Yes, sir. That's -- rumble is the way that they</p>	<p style="text-align: right;">Page 173</p> <p>1 proportional. It gives you not full light and not no 2 light but some level in between. And that would be -- 3 that's the definition of "proportional." 4 Q. Okay. Why is that important in a video game? 5 A. Well, it's very important. As you alluded to in 6 your opening remarks, for example, we're mimicking the 7 real world. We're trying to make these 3-D environments 8 really understandable and easy to use just like the real 9 world. And you used the analogy -- and I think it's a 10 very good one -- of a gas pedal in a car so that, you 11 know, you don't want it all the way off where you 12 wouldn't go anywhere; you don't want it all the way down 13 to the floor or you would be crashing into everything. 14 So, you want something in between; and you want to be 15 able to vary that. According to how hard you press it 16 means how fast you go. And that is a proportional 17 control, and that was something that I emphasized quite 18 a lot in my patent application. 19 Q. All right. Mr. Armstrong, let me ask you about 20 that. So, you've just told us that proportional buttons 21 was the second feature of the continuation patent you 22 filed in the year 2000. But had you disclosed that idea 23 of proportional buttons to the Patent Office back in 24 your 1996 application? 25 A. Yes, sir, I certainly did.</p>

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<p style="text-align: right;">Page 174</p> <p>1 Q. Can you show us?</p> <p>2 A. This is a quote out of the 1996 application. It</p> <p>3 says: The invention can be constructed with sensors as</p> <p>4 simple as electrical contacts or more sophisticated</p> <p>5 proportional and pressure-sensitive variable output</p> <p>6 sensors or the like.</p> <p>7 MR. GUNTHER: Your Honor, I just have a</p> <p>8 question. I may be just on the wrong page. Page 14</p> <p>9 doesn't seem to match up with what I'm looking at.</p> <p>10 THE COURT: All right. Is that page 14 of</p> <p>11 the prior application or the application or the prior</p> <p>12 patent?</p> <p>13 MR. CAWLEY: The -- page 14 is the page</p> <p>14 number in the juror notebook for the application. And</p> <p>15 if we want to know how it relates back to the</p> <p>16 prosecution history, we'll have to get it out of the</p> <p>17 juror notebook and match it up.</p> <p>18 MR. GUNTHER: We can do that later. That's</p> <p>19 no problem.</p> <p>20 MR. CAWLEY: Okay.</p> <p>21 MR. GUNTHER: Thank you.</p> <p>22 THE COURT: So, just to help you, ladies and</p> <p>23 gentlemen, we have some of this information in your</p> <p>24 juror notebook so you can follow along.</p> <p>25 And counsel on both sides, of course, when</p>	<p style="text-align: right;">Page 176</p> <p>1 A. Yes, sir, I do. I have this exhibit. Now, this</p> <p>2 one has the exhibit sticker.</p> <p>3 Q. That's probably from a deposition. So, rather than</p> <p>4 get into that, it's been disclosed as a demonstrative.</p> <p>5 So, just go ahead and explain it to the jury, if you</p> <p>6 would.</p> <p>7 My question was: What's the problem?</p> <p>8 A. Well, the problem is that when you do just</p> <p>9 individual wiring, it's error-prone; and we want to be</p> <p>10 able to sell huge volumes of these things. I wanted to</p> <p>11 create controllers that could be sold in huge volumes</p> <p>12 and they had to be really reliable and, so, they could</p> <p>13 be manufactured and, so -- in high volumes and a</p> <p>14 reliable product. That's why I worked on these -- being</p> <p>15 able to put all of the circuits down onto a single</p> <p>16 circuit board sheet for -- as simple as possible.</p> <p>17 Q. Okay. Once again, if you hold up that</p> <p>18 demonstrative controller --</p> <p>19 A. This one?</p> <p>20 Q. Yes. Is that how some of the early controllers</p> <p>21 were put together?</p> <p>22 A. Yes, sir.</p> <p>23 Q. Did they use circuit boards?</p> <p>24 A. It didn't have a circuit board, but it had all of</p> <p>25 this individual wiring.</p>
<p style="text-align: right;">Page 175</p> <p>1 that comes up, if you'll remind them, it will obviously</p> <p>2 be a help to them.</p> <p>3 Thank you, counsel, for bringing that up.</p> <p>4 MR. GUNTHER: Thank you, your Honor.</p> <p>5 THE COURT: Go ahead, Mr. Cawley.</p> <p>6 BY MR. CAWLEY:</p> <p>7 Q. So, irrespective of this issue about the page</p> <p>8 numbers in the notebook versus the application, is</p> <p>9 this --</p> <p>10 MR. CAWLEY: If we could go back to that</p> <p>11 language.</p> <p>12 BY MR. CAWLEY:</p> <p>13 Q. Is this an actual reproduction of the language from</p> <p>14 your '96 application?</p> <p>15 A. Yes, sir, I believe it is.</p> <p>16 Q. Okay. What's the next feature of your continuation</p> <p>17 application that you filed in the year 2000?</p> <p>18 A. There was the sheet-connected sensors.</p> <p>19 Q. What does that mean, a sheet-connected sensor?</p> <p>20 A. That is what I was describing to the jury as that</p> <p>21 blue and white prototype really allowed for the</p> <p>22 reduction in wiring; individual wiring could be reduced.</p> <p>23 Therefore, it can be made a more reliable product.</p> <p>24 Q. Can you -- do you have something in front of you</p> <p>25 that you can use to show the jury what the problem was?</p>	<p style="text-align: right;">Page 177</p> <p>1 MR. CAWLEY: Your Honor, if I might approach</p> <p>2 the witness.</p> <p>3 THE COURT: You may.</p> <p>4 A. Yes, sir.</p> <p>5 BY MR. CAWLEY:</p> <p>6 Q. Can you tell us what that is that I just handed</p> <p>7 you?</p> <p>8 A. This is a circuit board with all of the wiring</p> <p>9 reduced to just circuit traces.</p> <p>10 Q. Now, we've probably all heard of circuit boards.</p> <p>11 But tell us, just to be clear: What is a circuit board?</p> <p>12 A. This is out of a game controller. This is a --</p> <p>13 this has got the ability to put multiple different</p> <p>14 sensors all onto one circuit board.</p> <p>15 Q. Is it something that's printed?</p> <p>16 A. Yes, sir. It's manufactured in a factory.</p> <p>17 Q. Now, you didn't invent circuit boards, did you,</p> <p>18 Mr. Armstrong?</p> <p>19 A. Oh, no, sir. No, sir.</p> <p>20 Q. What did you invent involving a circuit board in</p> <p>21 your '700 patent?</p> <p>22 A. Well, my effort was to be able to make 3-D graphics</p> <p>23 controllers that were reduced in their complexity so</p> <p>24 that they could -- so that they could be manufactured in</p> <p>25 a simple, high-volume, reliable manner.</p>

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1 Q. Did you think circuit boards were a good way to do
2 that?
3 A. Yes, sir.
4 Q. Did you, in 1996, disclose to the Patent Office in
5 your patent application the idea of using circuit boards
6 in game controllers?
7 A. Yes, sir, I did.
8 MR. CAWLEY: Can we see that?
9 A. Yes. This is text from my 1996 application, the
10 original parent patent application, where it says:
11 Providing structure with the advantage of mounting the
12 sensors in a generally single area or on at least one
13 planar area, such as on a generally flat flexible
14 membrane sensor sheet or circuit board sheet, so that
15 the controller can be highly reliable and relatively
16 inexpensive to manufacture.
17 BY MR. CAWLEY:
18 Q. Is that thing on the bottom a drawing or
19 reproduction of a drawing from your '96 patent
20 application?
21 A. Yes, sir. That's Figure 17.
22 Q. Now, while we're at it, just so there's not any
23 confusion, in the slide we saw before this with the
24 language from the patent application, there was some
25 yellow highlighting like there is here, right?

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1 A. Yes, sir.
2 Q. That wasn't in your '96 application, was it?
3 A. No. The highlighting is added here.
4 Q. Okay. And, likewise, we see that something in this
5 drawing is colored green.
6 A. Yes, sir.
7 Q. Was that green in your patent application?
8 A. No, sir.
9 Q. Why did you -- why have you turned it green here?
10 A. Just to emphasize that part so that the jury can
11 see what we're talking about here.
12 Q. Okay. And what is that green thing?
13 A. Well, it's a sheet. It's a sheet with a variety of
14 different sensors on it. It's best shown as a membrane
15 sheet, but it certainly can be a circuit board sheet.
16 Q. All right. And, Mr. Armstrong, what was the next
17 novel or new feature that you included in your 2000
18 patent application that eventually became the '700
19 patent?
20 A. Well, it's the ability to control three-dimensional
21 graphics; in other words, structures for controlling 3-D
22 graphics.
23 Q. What does that mean?
24 A. Well, it's the 6 degrees of freedom that you've
25 already described, which it's also 6 axes of control.

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1 That was central.
2 Q. Okay. And why is that important?
3 A. It's just -- it's -- six axes is kind of a magic
4 number in 3-D graphics control. You don't have to have
5 exactly six, but it just is -- it's kind of a highest
6 calling. It's the best way to do things. It's not the
7 only way, but it's a high calling.
8 Q. Can you demonstrate for us how a video game
9 controller, such as the ones made by Nintendo, can be
10 used to control characters in up to 6 degrees of
11 freedom?
12 A. Yes, sir, I can.
13 MR. CAWLEY: Your Honor, may the witness step
14 down and --
15 THE COURT: You may.
16 MR. CAWLEY: -- conduct that demonstration?
17 BY MR. CAWLEY:
18 Q. You might want to give the microphone another try.
19 A. All right. I might just be yelling.
20 What I'd like to demonstrate here is some
21 functionality of these controllers. And primarily what
22 I'm going to demonstrate is under my right thumb here,
23 there is a two-way pad. It has an up and down and a
24 left and right. And under my left thumb there is a
25 thumb stick that has an up and down and a left and

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1 right. And I'm going to start out by demonstrating
2 viewpoint control, in other words, how to control the
3 view in the game.
4 Now, I'm just going to press, with my
5 right -- the right button here and then the left button
6 (demonstrating). And you can see that the view is going
7 to the right and to the left.
8 And now if I press forwards, the view goes
9 forwards. And if I press back, the view goes back.
10 Q. Now, are those different degrees of freedom?
11 A. Yes, sir.
12 Q. And are those all controlled by the controller?
13 A. Yes, sir.
14 Another way of controlling viewpoint is --
15 right now this is Super Mario Galaxy, the game; and
16 we're looking at it from Mario's perspective. With my
17 left thumb, I can push to the left; and he looks to the
18 left. With my right, push to the right, looks to the
19 right. Pull up, and he looks up. Push down, and he
20 looks down. So, that's a way of controlling the view
21 with these different inputs.
22 Now, another thing that I would like to show
23 you is that -- now, what I did is I just clicked on that
24 star there and I'm going to click on this world here and
25 I'm going to click -- see, this is like a button. I'm

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<p style="text-align: right;">Page 186</p> <p>1 I do have a concern about him stating his own 2 opinion that the Wii -- the way you asked that last 3 question made it sound like he was giving opinion that 4 the Wii was his invention; although, you said not the 5 whole Wii, the -- 6 MR. CAWLEY: I mean, I can see how that 7 might -- you might have that impression; but that's not 8 what I'm asking him. 9 THE COURT: I need you to rephrase that so 10 it's not his opinion that he invented -- you started off 11 by talking not the Wii. But right there at the end, 12 before counsel objected -- not for reasons counsel said, 13 but I agree with his objection. So, let's get it right. 14 Let's -- and I've been following along in the claims, 15 and you haven't got there yet. 16 MR. CAWLEY: No, and I'm not going to with 17 this witness. 18 THE COURT: Well, I understand. But each of 19 the things he's talking about so far is an element of 20 one or more of the claims. 21 MR. CAWLEY: That's right. 22 THE COURT: There's two in 19 and one in 16 23 or 14 that I've been following. So, I don't have a 24 problem with that. But I will say the way that last one 25 was worded --</p>	<p style="text-align: right;">Page 188</p> <p>1 Q. And did you -- going back now to this last feature 2 that you're talking about, the control of motion or 3 point of view and up to 6 degrees of freedom, did you 4 disclose that idea to the Patent Office in 1996? 5 A. Yes, sir, I did. 6 Q. Can you show us that? What is this? 7 A. This is figure Number 22 out of my 1996 8 application. 9 Q. Do you still have a laser pointer there? 10 A. Yes, sir, I do. 11 Q. Can you use the laser pointer to briefly explain to 12 us what this figure shows and how it accomplishes 13 control and up to 6 degrees of freedom? 14 A. Yes. This figure is a drawing that's really very 15 similar to the blue and white prototype that I showed 16 you. There were four rockers on that blue and white 17 prototype, and there are four rockers on this. 18 You see this (indicating), Number 344, is a 19 rocker for one axis. This (indicating) number here, 20 342, is a rocker for another axes. This (indicating) 21 rocker here, 346, is a third rocker. And this 22 (indicating) rocker here, 340, is a fourth rocker. And 23 that's essentially the equivalent of the four rockers 24 that I showed you in the blue and white prototype. 25 Q. And how many degrees of freedom does that</p>
<p style="text-align: right;">Page 187</p> <p>1 MR. CAWLEY: Okay. So, can I just ask him, 2 "What did you invent?" 3 THE COURT: He can talk about that. Did I -- 4 MR. GUNTHER: As long as it's not tied to 5 the -- not tied to our products. 6 MR. CAWLEY: I'll preface it with that. 7 THE COURT: Okay. 8 MR. GUNTHER: Thank you, your Honor. 9 (Bench conference concluded. The following 10 proceedings were heard in open court.) 11 THE COURT: Go ahead, counsel. 12 BY MR. CAWLEY: 13 Q. Mr. Armstrong, I just want to make sure to avoid 14 confusion; so, I'll ask you again. You didn't invent 15 the game we just saw, right? 16 A. No, sir. 17 Q. What did you invent? 18 A. I invented the combination of the controller that I 19 demonstrated. 20 Q. Well, did you invent the four features that you 21 described to us already today? 22 A. Yes, sir, I did. 23 Q. And did you invent the combination of those four 24 features to use in a video game controller? 25 A. Yes, sir, I surely did.</p>	<p style="text-align: right;">Page 189</p> <p>1 accomplish? 2 A. Right here is showing 4 degrees of freedom. 3 Q. And did you include other drawings in the patent 4 application to show additional degrees of freedom? 5 A. Yes, sir. 6 Q. Okay. We'll see those a little later in more 7 detail when Professor Howe testifies. So, let me move 8 along now and ask you this: When you combined these 9 four features that eventually became your '700 patent 10 and you first actually experienced them in a controller, 11 were there any results that surprised you? 12 A. Yes, sir. It's a stunning sense of unexpected 13 results. It's just -- it becomes involving, just -- you 14 know, you put together the parts and you just think it's 15 a sum of parts, but actually it's a whole lot more than 16 the sum of the parts. You get the rumble which is the 17 sense of touch. You're able to control all the 3-D 18 graphics; that's a -- with touch in there, that's a big 19 deal. And then you get the proportional, that variable 20 control; and it just gets richer and richer until -- and 21 it just is a wonderful kind of explosion of unexpected 22 wow. You know, it just becomes compelling; and that's 23 why I think that Nintendo has such stunning sales. 24 Q. Mr. Armstrong, in your mind, in an ideal world, 25 would the controller have all four of the features that</p>

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<p style="text-align: right;">Page 190</p> <p>1 you've described to us? 2 A. Yes, sir. 3 Q. And did you draft some of the claims in your '700 4 patent to require all four of those features? 5 A. Yes, sir. 6 Q. But did you draft some claims, also, that might 7 require less than all four? 8 A. Yes, sir. 9 Q. Why did you do that? 10 A. Well, because, you know, there are lesser 11 inventions, also. I have a highest calling, a great 12 invention, the really involving ones; and there are 13 lesser inventions. And in order to build up to the 14 biggest and best invention, I had to build a whole bunch 15 of smaller inventions along the way to get there. And 16 those smaller inventions are good inventions, too. 17 They're really good inventions, some of them. They're 18 just not as good as the very best ones. 19 Q. Now, did you hire a lawyer to help you get the '700 20 patent? 21 A. No, sir, I did not. 22 Q. Did you talk to some? 23 A. Yes, sir. 24 Q. And how long did it take to get the '700 patent? 25 A. I think it was pending about five years.</p>	<p style="text-align: right;">Page 192</p> <p>1 drawn from a certain direction, and all that stuff. But 2 you submit it to the Patent Office, and then the Patent 3 Office does a search for all the inventions that are 4 like that that they can find. And that takes -- they do 5 a good job. They do an in-depth search and -- 6 Q. Just -- if you would, just tell me -- 7 A. Yes, sir. 8 Q. Tell me what the file history is. 9 A. Oh, I'm sorry. I get carried away with details 10 sometimes. I'm that way. 11 It is the paper record of everything that the 12 Patent Office does before they issue the patent. 13 Q. And does it include all the communications between 14 you and the Patent Office about your '700 patent? 15 A. Yes, sir. 16 Q. And I think you've already showed us Plaintiff's 17 Exhibit 1, but if you could hold up that certified copy 18 again. 19 A. Yes, sir. 20 Q. Is that the patent that issued to you after the 21 five years? 22 A. Yes, sir, it is. 23 Q. How did you feel when you got that patent? 24 A. It's a wonderful feeling. It's a feeling of -- 25 when you get a U.S. patent, you're so proud. You know,</p>
<p style="text-align: right;">Page 191</p> <p>1 Q. Did you ever get frustrated with the process? 2 A. At times, yes, sir. 3 Q. Let me show you what I hold in my hand here, 4 Plaintiff's Exhibit 2. I guess you can't see it from 5 here. 6 MR. CAWLEY: Could you pull up on the screen 7 the first page of Plaintiff's Exhibit 2? 8 BY MR. CAWLEY: 9 Q. What is that? 10 A. Let me look in my book. I can't read the fine 11 detail on the screen. 12 Q. Yes, please. 13 A. That is the -- I believe that's the file history 14 from the '700 patent application, the processing within 15 the Patent Office. Is that correct? 16 Q. Yes, that is correct. 17 A. Okay. 18 Q. You used a phrase there, "file" -- 19 A. Right. I can read it now, yes. 20 Q. All right. You used the phrase or expression "file 21 history." What does that mean? 22 A. Well, when you file a patent application, you know, 23 you send in -- you put together your inventions into a 24 comprehensive disclosure; and it has to be what -- you 25 know, all the lines have to be a certain thickness,</p>	<p style="text-align: right;">Page 193</p> <p>1 you just -- you feel like -- well, like when you got 2 your high school diploma or -- that you've done 3 something really good. And, you know, it's just a 4 wonderful feeling of achievement. 5 Q. Let me move on to a different subject, 6 Mr. Armstrong. 7 Have you entered into any agreements with 8 companies to develop your game controller inventions? 9 A. Yes, sir, I have. 10 Q. And who was the first? 11 A. Key Tronic Corporation. 12 Q. What kind of inventions was Key Tronic interested 13 in? 14 A. They were interested in my 6-degree-of-freedom '828 15 issued patent -- but it wasn't an issued patent at that 16 time, but that was what they were interested in. 17 Q. And when was this? 18 A. That was in 1992. 19 Q. 1992? So, this is -- 20 A. Possibly three, yeah. 21 Q. So, this was several years before you filed this 22 warehouse 1996 application, correct? 23 A. Yes, sir. 24 Q. And it's quite a few years before you filed the 25 application in 2000 that became the '700 patent,</p>

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<p style="text-align: right;">Page 224</p> <p>1 A. I think that would be in the year -- well, the 2 exact year I don't know. When they would come out with 3 products, I would look at them and open them up and -- 4 and if it made my invention, then that was -- for 5 example, when the GameCube controller came out, that was 6 an example of my invention. 7 Q. Right. And do you remember when that was? 8 A. I think that was 2001, right in that time frame. I 9 don't know exactly, sir. 10 Q. All right. Now -- 11 A. Maybe 2000. 12 Q. And by your invention, are you -- are you referring 13 to the things that you disclosed to the Patent Office in 14 that warehouse application back in 2006? 15 A. 1996, yes, sir. 16 Q. Sorry. 1996. My mistake. 17 Now, Mr. Armstrong, do you intend to show the 18 jury this morning a point-by-point comparison of 19 Nintendo's controllers compared to your '700 patent? 20 A. No, sir. 21 Q. And why are you not going to do that? 22 A. There's a professor from Harvard University who's 23 prepared a study of that. 24 Q. And will he be here to testify later today? 25 A. Yes, sir, he will.</p>	<p style="text-align: right;">Page 226</p> <p>1 Ladies and gentlemen, remember, of course, 2 that what the lawyers say or don't say is not evidence; 3 and it will be up to you to remember what was said and 4 what the testimony was. 5 Go ahead, counsel. 6 MR. CAWLEY: Thank you, your Honor. 7 BY MR. CAWLEY: 8 Q. And do you remember that he highlighted this 9 language: A sensor connecting sheet material -- 10 multiple-axes -- he highlighted this language 11 "controllers comprised of a single input member operable 12 in 6 DOF." Do you remember that? 13 A. Yes, sir. 14 Q. And do you remember that he told the jury that the 15 only thing you had actually invented was a controller 16 with a single input member? Do you remember that? 17 A. Yes, sir. 18 Q. Well, let me show you this next slide, which is the 19 next couple of sentences of that same abstract that -- 20 A. Right. 21 Q. -- Nintendo's lawyer didn't show you yesterday. 22 A. Yes. 23 Q. What do we see here in the highlighted language? 24 A. This "in an alternative embodiment," and then skip 25 down to the most relevant part is "reach a widely-spread</p>
<p style="text-align: right;">Page 225</p> <p>1 Q. Is that Professor Howe? 2 A. Yes, sir. 3 Q. Now, I want to ask you about some things we heard 4 yesterday, some accusations against you. 5 Did you ever claim that you invented an 6 accelerometer? 7 A. No, sir. 8 Q. Have accelerometers been around a long time, to 9 your knowledge? 10 A. I think so, yes, sir. 11 Q. I want to show you a slide. This is a slide that 12 Nintendo's lawyer showed to the jury yesterday during 13 opening statement. Do you recognize that? 14 A. Yes, sir. I saw that yesterday. 15 Q. And you remember that Nintendo's lawyer, using this 16 slide, said this is a part of the abstract of the 17 disclosure. Remember that? 18 A. Yes, sir. 19 Q. And that that's the very first words of the '700 20 patent. Do you remember that? 21 A. Yes, sir. 22 MR. GUNTHER: Objection, your Honor. I 23 didn't say that. 24 A. Well -- 25 THE COURT: Overruled.</p>	<p style="text-align: right;">Page 227</p> <p>1 3-D constellation of 6 DOF and/or other sensor 2 mountings." The "other sensor mountings" is the 3 critical language here because it was described that all 4 I had was just a single input member, and here's -- 5 we're talking about other sensor mountings, and there 6 are other inputs in this specification in the patent. 7 Q. And is the "alternative embodiment," up at the top 8 there -- does that mean that, right after what 9 Nintendo's lawyer showed the jury yesterday, you said to 10 the Patent Office there is another way of doing this? 11 A. Yes, sir. I think it's even the same paragraph. 12 Q. And did you tell them there is a way of doing it 13 with other sensor mountings? 14 A. Yes, sir. 15 Q. Well, let's not stop there because we still heard a 16 lot yesterday from Nintendo about their telling the jury 17 that the invention you showed in your 1996 patent 18 application was limited just to a single input member. 19 Was that true, Mr. Armstrong? 20 A. No, sir, that's not true. 21 Q. Let me ask you to look at this next piece of your 22 1996 application. 23 A. Yes, sir. 24 Q. On the top there is a drawing from your 25 application; is that right?</p>

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<p style="text-align: right;">Page 228</p> <p>1 A. Yes, sir. That is. It's Figure 6.</p> <p>2 Q. On the bottom there is some text or language from</p> <p>3 your application, correct?</p> <p>4 A. Yes, sir.</p> <p>5 Q. Tell us what is shown in that drawing, Figure 6,</p> <p>6 from your 1996 application.</p> <p>7 A. Right. There is a -- you can see the yellow area</p> <p>8 and then inside of the yellow area is a round ball and</p> <p>9 it has a Number 12 to it. And that ball is a</p> <p>10 6-degree-of-freedom input member or a 3-D input member</p> <p>11 and that is what -- it appeared to me he was saying</p> <p>12 that's the only thing this patent has, that it doesn't</p> <p>13 have any other input members.</p> <p>14 Q. Don't worry about --</p> <p>15 A. So --</p> <p>16 Q. -- that for now, Mr. Armstrong.</p> <p>17 A. The --</p> <p>18 Q. Just show me --</p> <p>19 A. The yellow part --</p> <p>20 THE COURT: Wait.</p> <p>21 THE WITNESS: Excuse me.</p> <p>22 BY MR. CAWLEY:</p> <p>23 Q. Sorry. Sorry.</p> <p>24 THE COURT: Let me explain. The court</p> <p>25 reporter can only take one person at a time. When your</p>	<p style="text-align: right;">Page 230</p> <p>1 A. Yes, sir, it is.</p> <p>2 Q. Does this drawing, back in your 1996 application,</p> <p>3 show two different input members?</p> <p>4 A. Yes, sir. There are two separate input members in</p> <p>5 this drawing.</p> <p>6 Q. And now let's read the text that is describing</p> <p>7 this. And I'll just read it out loud: Further, the</p> <p>8 trackball 12 input member may be interpretable on all</p> <p>9 six axes as previously described, and the rotatable</p> <p>10 collet can serve as an additional secondary input</p> <p>11 member.</p> <p>12 Did I read that accurately?</p> <p>13 A. No, sir. That's exactly what it says.</p> <p>14 Q. Okay. I think -- I think -- that's good enough.</p> <p>15 That's good enough for me.</p> <p>16 What, though -- just so we're not confused,</p> <p>17 what's a collet? I see that the third line down says</p> <p>18 "rotatable collet." What's a collet?</p> <p>19 A. Well, that's the part that's yellow in the drawing.</p> <p>20 It's the Number 16. And it is a second part that you</p> <p>21 can manipulate or control with your hand.</p> <p>22 Q. Okay.</p> <p>23 A. It's a second input member. Yes, sir.</p> <p>24 Q. So, the yellow thing that fits around the ball is</p> <p>25 called a "collet"?</p>
<p style="text-align: right;">Page 229</p> <p>1 lawyer is talking, you've got to stop. He knows that</p> <p>2 when you're talking, he's got to stop; but you've got to</p> <p>3 remember to stop when he's trying to say something.</p> <p>4 Otherwise, it comes out as a really jumbled mess on the</p> <p>5 record. Okay?</p> <p>6 THE WITNESS: Okay, your Honor.</p> <p>7 THE COURT: Now, I know you're not used to</p> <p>8 this, but --</p> <p>9 THE WITNESS: All right.</p> <p>10 THE COURT: -- just remember she's trying to</p> <p>11 take everything down. Okay?</p> <p>12 THE WITNESS: Thank you. I'll try to be</p> <p>13 better.</p> <p>14 BY MR. CAWLEY:</p> <p>15 Q. I apologize for my interrupting you, Mr. Armstrong.</p> <p>16 I didn't mean to be rude, but I want to make sure that</p> <p>17 this moves along promptly and that we really focus our</p> <p>18 time. So, let me ask you some more specific questions.</p> <p>19 Is the white ball that we see there that's</p> <p>20 got a Number 12 pointing to it -- is that an input</p> <p>21 member?</p> <p>22 A. Yes, sir, it is.</p> <p>23 Q. Is the yellow thing that looks kind of like a very</p> <p>24 deep saucer surrounding the ball -- is that a different</p> <p>25 input member?</p>	<p style="text-align: right;">Page 231</p> <p>1 A. Yes, sir.</p> <p>2 Q. And just so we understand how this works, the ball</p> <p>3 is movable; is that right?</p> <p>4 A. Yes, sir.</p> <p>5 Q. And you can control things on the screen with the</p> <p>6 ball?</p> <p>7 A. Yes, sir.</p> <p>8 Q. And the yellow collet is separately movable,</p> <p>9 correct?</p> <p>10 A. Yes, sir.</p> <p>11 Q. And you can separately control things on the</p> <p>12 computer screen with the collet. Accurate?</p> <p>13 A. Yes, sir.</p> <p>14 Q. And does this specifically describe that collet as</p> <p>15 a secondary input member?</p> <p>16 A. Yes, sir. It's quoted "an additional secondary</p> <p>17 input member."</p> <p>18 Q. Is it true, then, Mr. Armstrong, as Anascape's</p> <p>19 lawyer told the jury yesterday, that all your 1996</p> <p>20 application disclosed was a way to do controllers with a</p> <p>21 single input member?</p> <p>22 A. That would not be true.</p> <p>23 Q. Let's look at another drawing from your 1996</p> <p>24 application. Is this another way you disclosed to the</p> <p>25 Patent Office that your invention might be done?</p>

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<p style="text-align: right;">Page 232</p> <p>1 A. Yes, sir.</p> <p>2 Q. Describe, if you would, briefly what picture we're</p> <p>3 looking at there.</p> <p>4 A. This also has Ball 12, which is a first input</p> <p>5 member. It has a collet in a different shape, 16, which</p> <p>6 is a second input member. And it has individual buttons</p> <p>7 136, which are another -- even an additional different</p> <p>8 kind of input members.</p> <p>9 Q. Okay. Just so we understand, the thing that looks</p> <p>10 like a ball is a ball like we saw before; is that right?</p> <p>11 A. Yes, sir.</p> <p>12 Q. And it can be used to control things on the screen?</p> <p>13 A. Yes, sir.</p> <p>14 Q. And then the thing around the ball that has -- I</p> <p>15 see the numbers both 14 --</p> <p>16 A. Yeah.</p> <p>17 Q. -- and 16 and -- 14 and 16 pointing to it.</p> <p>18 A. Right.</p> <p>19 Q. That thing around the ball, is that separately</p> <p>20 movable from the ball?</p> <p>21 A. Yes, sir, it is.</p> <p>22 Q. And is that a separate and second input member?</p> <p>23 A. Yes, sir. That's a second input member.</p> <p>24 Q. And then we see the buttons.</p> <p>25 A. Yes, sir.</p>	<p style="text-align: right;">Page 234</p> <p>1 look at the knob on what Nintendo's lawyers have told</p> <p>2 the jury is a single input member, do you see that there</p> <p>3 is some little -- I don't know -- (indicating) yeah,</p> <p>4 right there. Do you see that?</p> <p>5 A. Yes, sir.</p> <p>6 Q. What that arrow is pointing to?</p> <p>7 A. Yes, sir.</p> <p>8 Q. A little mark there.</p> <p>9 A. Yes, sir.</p> <p>10 Q. Is there a drawing in your patent that gives us a</p> <p>11 better view of what that little mark is?</p> <p>12 A. Yes, sir, there is.</p> <p>13 Q. Well, let's take a look at it.</p> <p>14 A. There it is.</p> <p>15 Q. In the upper part, is that Figure 28 from your</p> <p>16 patent --</p> <p>17 A. Right.</p> <p>18 Q. Is that right?</p> <p>19 A. Yes, sir, that's Figure 28.</p> <p>20 Q. And does that show a larger view and a view with</p> <p>21 the top off of that handle that Nintendo's lawyers told</p> <p>22 the jury was a single input member?</p> <p>23 A. Yes, sir. That's Number 300. You can see the 300</p> <p>24 in the previous drawing, also.</p> <p>25 Q. Okay. Now, what are those things that we now can</p>
<p style="text-align: right;">Page 233</p> <p>1 Q. Are those different input members?</p> <p>2 A. Yes, sir. They are different input members.</p> <p>3 They're additional input members.</p> <p>4 Q. Well, let's look at another example that we saw</p> <p>5 from Nintendo's lawyer yesterday in the opening</p> <p>6 statement.</p> <p>7 On the left there, is that a reproduction --</p> <p>8 that exploded thing with the yellow handle on top of</p> <p>9 it -- is that a reproduction of a figure from your 1996</p> <p>10 warehouse patent application?</p> <p>11 A. Yes, with the exception that I believe that</p> <p>12 Mr. Gunther had the yellow and the single input member</p> <p>13 language put onto that.</p> <p>14 Q. Okay. So, it's all black and white in the original</p> <p>15 application, correct?</p> <p>16 A. Yes, sir.</p> <p>17 Q. And, so, Nintendo's lawyers have colored part of it</p> <p>18 yellow, correct?</p> <p>19 A. Yes, sir.</p> <p>20 Q. And they put on that big red box that says "Single</p> <p>21 Input Member," right?</p> <p>22 A. Yes, sir.</p> <p>23 Q. That's not in the patent application?</p> <p>24 A. No, sir.</p> <p>25 Q. Now, this is going to be hard to see. But if you</p>	<p style="text-align: right;">Page 235</p> <p>1 see much larger that are marked 376 that we just saw as</p> <p>2 little marks on the slide that Nintendo's lawyer showed</p> <p>3 the jury yesterday?</p> <p>4 A. Yes. Those are additional input members.</p> <p>5 Q. What --</p> <p>6 A. They're buttons on the handle. They are additional</p> <p>7 input members.</p> <p>8 Q. And did you actually describe that to the Patent</p> <p>9 Office in the text of your patent?</p> <p>10 A. Yes, sir. I did in 1996.</p> <p>11 Q. And is that reproduced at the bottom of this slide?</p> <p>12 A. Yes, sir. That's --</p> <p>13 Q. And did you point out to the Patent Office that</p> <p>14 this handle that Nintendo's lawyer told us yesterday was</p> <p>15 a single input member -- that this handle had, quote, a</p> <p>16 button externally operated for additional input?</p> <p>17 A. Yes, sir. That's a quote.</p> <p>18 Q. Just a bit more on something we heard yesterday,</p> <p>19 Mr. Armstrong. We saw this slide yesterday.</p> <p>20 MR. CAWLEY: If we could put that up.</p> <p>21 BY MR. CAWLEY:</p> <p>22 Q. Do you remember seeing this slide when Nintendo's</p> <p>23 lawyer was talking to the jury yesterday?</p> <p>24 A. Yes, sir.</p> <p>25 Q. Do you remember that this is another patent that's</p>

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<p style="text-align: right;">Page 236</p> <p>1 not -- not one of your patents, a patent from a man 2 named "Chang," with an A. 3 A. Right. 4 Q. And there is a picture. Is that apparently from 5 Mr. Chang's patent? 6 A. Yes, sir. 7 Q. And you discussed Mr. Chang's patent with the 8 Patent Office, right? 9 A. Yes, sir, I did. 10 Q. Yesterday we saw this big stack of papers that was 11 the file history of your patent. Do you remember that? 12 A. Yes, sir. 13 Q. And one of the things in the file history is -- I 14 want to say "talk," but it's not really talk. It's 15 writing back and forth between you and the Patent 16 Office, discussing some of the things about your patent; 17 isn't that right? 18 A. Yes, sir. 19 Q. And one of the things you discussed was whether 20 Mr. Chang did what you did before you did it; is that 21 correct? 22 A. Yes, sir -- I think that this was actually in the 23 original application, yes. 24 Q. Okay. But in any event, this language that we see 25 that Nintendo told the jury about yesterday is some talk</p>	<p style="text-align: right;">Page 238</p> <p>1 and, therefore, it's deficient? Do you remember hearing 2 that? 3 A. Yes, in essence. 4 Q. Is that the only reason you told the Patent Office 5 your invention was different from Mr. Chang's 6 controller? 7 A. No, sir. 8 Q. Let's go to the next slide. What is this? 9 A. This is more discussion of the Chang device. It 10 was just -- the previous slide just represented by 11 Nintendo's counsel yesterday -- 12 Q. Okay. Let me -- 13 A. This is additional material that I talked to the 14 Patent Office about. 15 Q. Let me ask you some more specific questions. In 16 addition to what Nintendo's lawyers told the jury 17 yesterday, did you also -- 18 A. Right. 19 Q. -- tell the Patent Office in writing that you -- 20 your invention was different from Mr. Chang's invention 21 because -- 22 A. Yes. 23 Q. -- there's the requirement that the trackball 24 housing be moved along a surface in order to input 25 linear movement information?</p>
<p style="text-align: right;">Page 237</p> <p>1 you had or dialogue in writing you had with the Patent 2 Office about Mr. Chang's patent and how it relates to 3 what you did? 4 A. Yes, sir. 5 THE COURT: And just for the record, counsel, 6 is this the different Chang that you mentioned earlier; 7 or is it the same Chang -- 8 MR. CAWLEY: This is the different Chang. 9 This person with this invention spells his name 10 C-H-A-N-G. 11 THE COURT: Different than the previous 12 gentleman he was talking to? 13 MR. CAWLEY: And he is a totally different 14 person than Howard Cheng, who spells his name C-H-E-N-G. 15 He is the man who works for Nintendo that Mr. Armstrong 16 met with to discuss a license. 17 THE COURT: Okay. 18 MR. CAWLEY: So, thank you for that 19 clarification, your Honor. 20 BY MR. CAWLEY: 21 Q. So, Mr. Armstrong, did you hear yesterday 22 Nintendo's lawyer tell the jury that you told the Patent 23 Office that your patent wasn't like Chang because you 24 have a single input member -- excuse me -- because the 25 Chang controller does not have a single input member</p>	<p style="text-align: right;">Page 239</p> <p>1 A. Right. 2 Q. Was that a reason? 3 A. I described that as a major disadvantage of the 4 Chang device, yes, sir. 5 Q. Did you also point out, as we see below, that 6 substantial physical space is required on a desk or 7 table on which to propel a mouse-type controller? 8 A. Yes, sir, I did describe that. 9 Q. Is that another reason you told the Patent Office? 10 A. Yes, sir, I did. 11 Q. Is there more? 12 A. Yes, sir, I believe there is more. 13 Q. Let's see. Did you also tell the Patent Office 14 that a mouse-type controller such as Chang's cannot 15 provide the desirable aspect of automatic 16 return-to-center along the linear axes? 17 A. Yes, sir, I did. 18 Q. Is there more? 19 A. Yes. I think there is. 20 Q. Did you also tell the Patent Office that the Chang 21 device appears relatively expensive to manufacture? 22 A. Yes, sir, I did tell them that. 23 Q. Mr. Armstrong, this is the last thing I'm going to 24 ask you about; and it's something else that we heard 25 yesterday in the opening statement by Nintendo's lawyer.</p>

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<p style="text-align: right;">Page 304</p> <p>1 up, Kam, please? 2 BY MR. GUNTHER: 3 Q. I want to shift to talking a little bit about your 4 application that you filed in 2000 that led to the '700 5 patent. We've got a new date up on the timeline. This 6 is a timeline that I used in my opening statement. It's 7 got your 1996 application. Do you see that? 8 A. Yes, sir. 9 Q. It has the 2002 claims that you wrote in 2002, 10 right? 11 A. Yes, sir. 12 Q. It has the GameCube controller that you're accusing 13 of infringement in this case but which you copied in 14 writing your claims in 2002, right? 15 A. (Pausing.) 16 Q. That's on there. 17 A. Is that the one with the November, 2001, date? 18 Q. Yes. Yes. Can you see that? 19 A. Yes, sir. 20 Q. And we've added a new date sort of in the -- a 21 little bit below the GameCube controller graphic, which 22 is November 16, 2000. That's a new date we haven't 23 talked about in this case yet. That's the date that you 24 filed the application that matured into the '700 patent, 25 right?</p>	<p style="text-align: right;">Page 306</p> <p>1 documents. We can think about the 1996 application, the 2 warehouse that had your inventions, which must be the 3 same invention as your claims in 2002, right? 4 A. I'm sorry. I'm just not -- I'm not following too 5 well. 6 Q. Okay. So, we've got your 1996 application up 7 there, right? 8 A. Okay. 9 Q. All right. And now we have the '700 patent. We 10 can compare those two documents, right? 11 A. Sure. 12 Q. And you testified on your direct examination that 13 you made some changes to the application in 2000, right? 14 A. Yes, sir. 15 Q. Before you filed it. 16 A. Yes, sir. 17 Q. So, you started with the 1996 warehouse 18 application; and then you made changes to it, right? 19 A. Yes, sir. 20 Q. Now, you told us that you made changes just to 21 clarify the invention, right? 22 A. Yes, sir. 23 Q. And you didn't make changes to broaden the 24 invention, did you? 25 A. No, sir.</p>
<p style="text-align: right;">Page 305</p> <p>1 A. I believe so, yes, sir. 2 Q. And, sir, that application, that '700 application, 3 issued as the '700 patent. 4 A. Yes, sir. 5 Q. And the description of what you put in the 6 application ultimately became part of the printed patent 7 which is, I think, Defendant's Exhibit 1 -- may be 8 Plaintiff's Exhibit 1 -- but it's the '700 patent, 9 right? 10 A. Okay. 11 Q. Am I right about that? 12 A. Would you say the question again, please? 13 Q. My question is that when that application 14 ultimately issued as the '700 patent, what's in the 15 patent itself, the '700 patent itself, is actually the 16 full description of the invention exactly the same as 17 you wrote it in the 1996 application, right? 18 A. (Pausing.) 19 Q. Strike that. Let me ask you another question. 20 The 2000 application that matured into the 21 '700 patent, when the patent issued in -- the '700 22 patent issued, it had the full description of what was 23 in the application in 2000, right? 24 A. Yes, sir. I believe so. 25 Q. Okay. So, now we can sort of think about two</p>	<p style="text-align: right;">Page 307</p> <p>1 Q. Because if you made changes to broaden the 2 invention, that would be a problem, wouldn't it? If you 3 broadened the invention from 1996 to what you filed in 4 2000, then you wouldn't be able to get back to 1996, 5 right? 6 A. Yes, sir. I just wanted to clarify when I made 7 those changes. 8 Q. Okay. But stick with me. I understand the 9 clarification point. But now I'm asking you that -- you 10 say you didn't broaden the patent -- 11 A. Right. 12 Q. -- in 2000 -- 13 A. Right. 14 Q. -- because if you had broadened it, then you 15 wouldn't be able to get back to 1996 because you would 16 have changed the invention. Remember, the invention has 17 to be the same at both points in time, right? 18 A. Yes, sir. 19 Q. Okay. So, now let's take a look at some of the 20 changes that you made from the 1996 warehouse 21 application to the '700 patent. 22 MR. GUNTHER: All right. Let's put the first 23 slide up. 24 BY MR. GUNTHER: 25 Q. This is the Abstract of the Disclosure from your</p>

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<p style="text-align: right;">Page 360</p> <p>1 Q. Now, sir, let's look at the first sentence of 2.1. 2 This is now not talking about the '606 patent; it's 3 talking about the Anascape parties hereby grant a 4 nonexclusive, irrevocable, worldwide license under all 5 of the Anascape patents -- licensed patents except the 6 one in 2.2, which was the '606, right? 7 MR. GUNTHER: Let's highlight that whole 8 first sentence, if we can, Kam. 9 A. Yes, sir. 10 BY MR. GUNTHER: 11 Q. So, the structure of the license is '606, exclusive 12 license for \$10 million, right? 13 A. Yes, sir. 14 Q. And then all of your other patents are then 15 licensed; and some cross-licenses from Sony come in, 16 right? 17 A. Yes, sir. 18 Q. And one of the patents that was nonexclusively 19 licensed to Sony in 2.1 is the application that led to 20 the '700 patent, right? 21 A. Say that again, please. 22 Q. One of the applications that's listed -- that's 23 included in your -- in all of the rest of the licenses, 24 everything that's thrown in under 2.1, one of those was 25 the application for the '700 patent, right?</p>	<p style="text-align: right;">Page 362</p> <p>1 That's what it says, right? 2 A. Yes, sir, it says that. 3 Q. So, sir -- and you didn't talk about that on your 4 direct examination, did you? 5 A. I don't think so. 6 Q. Okay. So, the patent application that became the 7 '700 that was included in the Sony license, that was one 8 of the ones that due to the uncertainty as to the value 9 of that application, the parties agree and acknowledge 10 they are unable to arrive at appropriate royalty rates, 11 right? That was one of them that was in that group. 12 A. Yes, sir. 13 Q. And let's look at the last sentence. This talks 14 about the '700 application, too: Accordingly, the 15 parties have agreed to forego any royalties or other 16 payment of any kind for those patents subject to the 17 cross-licenses. 18 Right? 19 A. Yes, sir. 20 Q. And that includes the '700 application, correct? 21 A. Yes, sir. 22 Q. So, what we've got in the Sony license is an 23 exclusive license to the '606 patent that's not part of 24 this case for which Sony paid \$10 million, right? 25 A. That's what this agreement says, yes, sir.</p>
<p style="text-align: right;">Page 361</p> <p>1 A. Yes, sir. 2 Q. And that's because it was an application because in 3 2004 when the license was signed, at that point in time 4 it wasn't a patent yet, right? 5 A. Yes. It was a patent application, yes, sir. 6 Q. It was an application. 7 So, all of your other patent rights are 8 included in that nonexclusive cross-license. 9 MR. GUNTHER: Now let's look at 3.2, and 10 let's actually -- we're going to have to get a little 11 bit more of -- let's see if we can squeeze 2.1 up a 12 little bit. Oh, I'm sorry. Let's put 3.2 in its 13 entirety, then. Thanks, Kam. The wonders of 14 technology. 15 BY MR. GUNTHER: 16 Q. So, Mr. Armstrong, now we've got 3.2 up; and this 17 is basically talking about all of the patents that were 18 thrown in in the nonexclusive license that included your 19 '700 application. And I want to focus on the sentence 20 that begins, right at the bottom, before the blue line: 21 Due to the uncertainty as to the value of any of these 22 patents that are subject of the provisions of the 23 cross-license, the parties agree and acknowledge that 24 they are unable to arrive at an appropriate royalty for 25 these licenses.</p>	<p style="text-align: right;">Page 363</p> <p>1 Q. And what we also have here is that everything else 2 was thrown in, including the '700 application, for zero 3 payment of money, correct? 4 A. Yes, sir. 5 Q. So, the '700 application, Sony paid zero for that 6 application. That's what this says, correct? 7 A. I'll give you the easy answer. Yes, sir. 8 Q. I like easy. 9 Mr. Armstrong, let me ask you this: In 10 2000 -- 11 MR. GUNTHER: Kam, could you put the timeline 12 back up? 13 BY MR. GUNTHER: 14 Q. Mr. Armstrong, in 2002, when you wrote your claims 15 that you are suing here on today, the five claims in the 16 '700 patent, you had gotten a GameCube controller, 17 right? 18 A. I suspect I had, yes, sir. 19 Q. And you had taken it apart, right? 20 A. Probably had, yes, sir. 21 Q. And when you were writing those claims on that 22 controller with three inputs, two joysticks and a 23 cross-switch, when you wrote those claims, you were 24 copying the GameCube controller, right? You were 25 writing those claims onto that product, correct?</p>

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<p style="text-align: right;">Page 364</p> <p>1 A. Yes, sir. I believed that it was covered by my 2 invention; and, so, I needed to write a claim that 3 covered it clearly. 4 Q. So, the answer to my question is "yes," right? 5 A. I don't know what the word "copying" means. 6 Q. Sir, I'll leave that out. 7 At the time that you wrote the claims in 8 2002, you had the GameCube in front of you. You had 9 taken it apart, and you were writing those claims to 10 cover, among other things, the two joysticks and the 11 cross-switch in the GameCube controller, correct? 12 A. Yes, sir. 13 Q. And when you wrote claim 19, which is the only 14 claim that's asserted against the Wii Remote plus the 15 Nunchuk, when you wrote that claim, you had the Nintendo 16 GameCube controller in front of you; and you were 17 writing the claim specifically to cover that product, 18 correct? 19 A. Well, I write claims to express my invention, yes, 20 sir. But I'm not sure that that claim was written for 21 that product, no, sir. 22 THE COURT: All right. Counsel, at this time 23 we're going to take a break for lunch. 24 Ladies and gentlemen, I'm going to ask you to 25 be back at 1:30. Please remember my instructions.</p>	<p style="text-align: right;">Page 366</p> <p>1 up outside the presence of the jury from defendant's 2 point of view? 3 MR. GUNTHER: No, your Honor. 4 THE COURT: All right. In that case we are 5 in recess until 1:30. And if counsel from each side 6 want to come back into chambers, that's fine. 7 (Recess, 12:16 p.m. to 1:26 p.m.) 8 (Open court, all parties present, jury 9 present.) 10 THE COURT: All right. Counsel, go ahead 11 MR. GUNTHER: Thank you, your Honor. 12 BY MR. GUNTHER: 13 Q. Mr. Armstrong, I think I'm getting close. Let me, 14 if I can, hold up this controller. Can you see that, 15 sir? 16 A. Yes, sir. 17 MR. GUNTHER: Your Honor, may I approach? 18 THE COURT: You may. 19 MR. GUNTHER: Thank you, sir. 20 BY MR. GUNTHER: 21 Q. I'm going to hand this to you, Mr. Armstrong. And, 22 again, I'm going to ask you to be a model for us; and if 23 you could hold that up for the jury. 24 A. Okay. (Complying.) 25 Q. Sir, that's the Sony DualShock controller, correct?</p>
<p style="text-align: right;">Page 365</p> <p>1 Don't discuss the case even among yourselves; and don't 2 let anybody else talk to you about it, obviously. If 3 anybody should try to approach you or influence you, get 4 their name and report it. 5 For your planning purposes, I have had a 6 notice of an emergency hearing that I'm going to have to 7 hold at the end of this afternoon; so, we will probably 8 be breaking a little early, about 4:00 or ten past 4:00 9 because these parties are coming in and I've got to 10 handle that matter. I don't like to interrupt this way, 11 but I'll have to do that. So, we'll be breaking a 12 little bit early and then starting again tomorrow at 13 8:45 in the morning. You're excused at this time for 14 lunch. 15 (The jury exits the courtroom, 12:15 p.m.) 16 THE COURT: Anything to be taken up outside 17 the presence of the jury from plaintiff's point of view? 18 MR. PARKER: I do have one matter that I had 19 hoped to discuss in chambers with the court with 20 Mr. Germer. 21 THE COURT: Okay. Anything else to be 22 taken -- 23 MR. PARKER: It won't take but a couple of 24 minutes. 25 THE COURT: Okay. Anything else to be taken</p>	<p style="text-align: right;">Page 367</p> <p>1 A. Yes, I think so. 2 Q. And that was released for the PlayStation console 3 in 1998, correct? 4 A. I'll take your word for it. 5 Q. Do you have any reason to doubt, sir, that that was 6 available in 1998? 7 A. No, sir. 8 Q. And, sir, that has the Sony -- that's called the 9 "Sony DualShock controller," right? 10 A. I think it is, yes, sir. 11 Q. And, sir, if you hold that up so we can all get a 12 little bit of a look at it, it's got a cross-switch on 13 there, right? 14 A. Are you talking about this (indicating) area here? 15 Q. Yes, sir. 16 A. Yes, I believe so. 17 Q. Or sometimes people call it a "D-pad," right? 18 A. Yes, I've heard it called that. 19 Q. What does that stand for? 20 A. I don't know. 21 Q. "Directional pad," does that sound right? 22 A. That sounds reasonable. 23 Q. Okay. So, it's got a cross-switch. It has two 24 joysticks. And does it have vibration? 25 A. I can't tell you.</p>

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<p style="text-align: right;">Page 380</p> <p>1 Patent Office what you thought was a new way of putting 2 those building blocks together? 3 A. Yes, sir, I surely did. 4 Q. And after the five years of examination, did the 5 Patent Office agree with you? 6 A. Yes, sir, they did. 7 Q. You were asked a lot of questions about the single 8 member of control. Is a single member of control one of 9 the things that you disclosed in your application in 10 1996? 11 A. Yes, sir. 12 Q. Is it the only thing that you disclosed? 13 A. Oh, no, sir. It's like one building block. 14 Q. Let's take a look at Figure 4 from that application 15 briefly, something you were shown in your 16 cross-examination. 17 THE COURT: And for the record, is this the 18 2000 application or the '96 application? 19 MR. CAWLEY: Thank you, your Honor. It's the 20 '96 application. 21 BY MR. CAWLEY: 22 Q. Is the ball that's Number 12 a member of control 23 thereto -- I'm sorry. Bad question. 24 Is the ball that's labeled Number 12 a member 25 of control, something that you can use to control?</p>	<p style="text-align: right;">Page 382</p> <p>1 Q. Now, Mr. Armstrong, did you ever suggest in your 2 '96 application that it might, under some 3 circumstances -- sorry -- be a good idea to take some of 4 the control from the ball and put it somewhere else? 5 A. Yes, sir. 6 Q. Can you explain what this tells us, particularly 7 the last sentence here that I've got highlighted? 8 Let me read it. 9 A. Right. 10 Q. (Reading) The rotatable collet of Figures 5 through 11 6 may at least for some users be an easier process to 12 achieve rotation about the yaw axis as compared to 13 rotating trackball 12 at least in terms of rotation 14 about yaw. 15 A. Yes, sir. 16 Q. Is yaw one of the 6 degrees of freedom of movement? 17 A. Yes, sir. 18 Q. And does this suggest taking it out of the ball and 19 putting it into the collet? 20 A. Yes, sir, it does. 21 Q. Now, Mr. Armstrong, I believe you -- you testified 22 in cross-examination that at various times after you'd 23 filed your continuation application in 2000, you wrote 24 claims in that patent to cover the Nintendo GameCube 25 controller; is that right?</p>
<p style="text-align: right;">Page 381</p> <p>1 A. Yes, sir. 2 Q. But is it the only member of control that's shown 3 in this drawing? 4 A. No, sir. 5 Q. Let's take a look at Figure 9. We saw that before. 6 Is the ball that's labeled Number 12 there a member of 7 control? 8 A. Yes, sir. 9 Q. Is it the only one? 10 A. No, sir. 11 Q. Are there others? 12 A. Yes, sir. 13 Q. What are they? 14 A. There's the Number 16 which I call a collet. And 15 then there's the buttons, 136. 16 Q. And let's take a look at Figure 20. That's the one 17 with the handle at the very top, correct? 18 A. Yes, sir. 19 Q. And in this figure we can still see those two 20 little buttons on the front of it, right? 21 A. Yes, sir. 22 Q. Does this show a single member of control? 23 A. Yes, at least. Yes, sir, it does. 24 Q. What else does it show? 25 A. It shows additional input members.</p>	<p style="text-align: right;">Page 383</p> <p>1 A. Yes, sir. 2 Q. Is there anything wrong with that as far as you 3 know? 4 A. No, sir. 5 Q. Did you hear Judge Clark's instruction about that 6 yesterday? 7 A. I believe he did give one, yes, sir. 8 Q. And did he say that there's nothing wrong with 9 that? 10 A. That's my understanding, yes, sir. 11 Q. You also testified -- and we just heard a lot of 12 testimony from you about the bowling game and so forth 13 and the Wii Remote. Do you remember that? 14 A. Yes, sir. 15 Q. And why -- whether you had accused the Wii Remote 16 and you said that you talked to experts and so forth and 17 so on. 18 Now, does Nintendo make many products that 19 you're aware of? 20 A. Yes, sir. 21 Q. Do they all infringe your patents? 22 A. No, sir. 23 Q. Have you even accused the Wii Remote by itself of 24 infringing in this lawsuit? 25 A. No, sir.</p>

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<p style="text-align: right;">Page 392</p> <p>1 teaching a freshman course for brand-new engineering 2 students on machine design and computer-aided design. 3 And then I've taught various classes at different 4 levels, up to graduate level courses for doctoral 5 students, in things like robotics and human-machine 6 interfaces. 7 Q. Now, you used a phrase there that you teach 8 graduate students about "human-machine interfaces." 9 What do you mean by those three words? 10 A. Well, it's kind of a broad term. It refers to 11 finding good ways for people to control complicated 12 systems. So, for instance, finding good ways for people 13 to control robots that are in remote locations, like 14 exploring outer space or under the ocean, or controlling 15 complicated computer systems, which could even include 16 video games. 17 Q. Do you have a research lab at Harvard? 18 A. I do. I've got about a dozen graduate students and 19 postdoctoral fellows; and we do research in robotics, 20 again, and these human-machine interfaces. 21 Q. Now I'd like to ask you at this time, Professor 22 Howe, to give us a general description of the features 23 of some of the controllers you looked at. And let's 24 start with Plaintiff's Exhibit 413. 25 MR. CAWLEY: May I approach, your Honor?</p>	<p style="text-align: right;">Page 394</p> <p>1 MR. CAWLEY: -- in front of the jury box? 2 BY MR. CAWLEY: 3 Q. First of all, let me turn this microphone on. 4 Now, I think that the question that I asked 5 you, Professor Howe, is: Can you explain to the jury 6 the features of the controller that you have in your 7 hand? 8 A. Certainly. Happy to do that. So, you've all 9 figured out by now, I'm sure, you hold it in two hands 10 like this and you'll see there are a couple of joysticks 11 or thumbsticks and they are thumbsticks, of course, 12 because you put your thumbs on them very carefully and 13 they move in two directions. You can move them up and 14 down. You can move them right and left. So, there are 15 two different directions you can use there and, of 16 course, any combination they'll move around. 17 Down here we have this cross-switch or D-pad, 18 directional pad. It goes by different names. I'm going 19 to call it the "D-pad" because that's what I'm used to. 20 And that has four different directions you can push. 21 So, again, you can go right, go left, go up, go down. 22 This one you don't do combinations on. You pick one 23 direction and push that. And you can feel a little 24 click when you push it down. That's just to tell you 25 that the switch is closed so you know that you actually</p>
<p style="text-align: right;">Page 393</p> <p>1 THE COURT: You may. 2 MR. CAWLEY: And, your Honor, at this time we 3 have exemplars of this exhibit that we would request to 4 present to the jury during Dr. Howe's testimony. 5 THE COURT: One for each of them? 6 MR. CAWLEY: Yes, your Honor. 7 THE COURT: Any objection? 8 MR. PRESTA: No objection. 9 THE COURT: All right. Go ahead. 10 Now, is that a marked exhibit; or is that one 11 of the demonstratives? 12 MR. CAWLEY: Once again, your Honor, the 13 picture of that exhibit is marked. 14 THE COURT: What number? 15 MR. CAWLEY: 413. 16 THE COURT: All right. Ladies and gentlemen, 17 the model you are holding is the actual thing. In the 18 jury room you'll see a picture marked Plaintiff's 19 Exhibit 413. 20 Go ahead, counsel. 21 MR. CAWLEY: Thank you, your Honor. 22 And, your Honor, could I request that since 23 the professor will be showing the jurors various 24 features of this controller, could he step down -- 25 THE COURT: Please.</p>	<p style="text-align: right;">Page 395</p> <p>1 pushed it down. 2 There are some other buttons on the face, 3 some simple buttons; and then on the front here are a 4 couple of triggers. Okay? And there's one under each 5 of your index fingers; and then there is a little button 6 above it, the purple one here. So, those are the basic 7 input features of the device. 8 Now, there's -- 9 Q. Okay. 10 A. -- one other feature that you can't see; and that's 11 this idea of a rumble motor, vibration feedback. 12 Q. Let me interrupt you because I have something to 13 show you that may help you show that. 14 MR. CAWLEY: If I may approach the witness, 15 your Honor. 16 THE COURT: You may. 17 A. So, this is a disassembled version. The cover has 18 been taken off. And the circuit board in here covers 19 up -- underneath here there is a little motor you can 20 see just peeking out there. And quite conveniently, 21 we've packaged that up into a little box. You can see 22 there is a battery. Here is the motor on top. And as 23 you push it, you get a vibration. Okay? 24 So, that's what you feel when you're playing 25 the game if you run into a wall, that sort of thing,</p>

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<p style="text-align: right;">Page 400</p> <p>1 first words in the claim are "a hand operated controller 2 comprising." 3 Q. Now, let's stop you right there. We've only gotten 4 through five words, but I want to stop you there and ask 5 you: Has Judge Clark defined any of those words, any of 6 those five words that are in this very first part of 7 claim 19? 8 A. Yes, he has. And in particular, the word 9 "controller" was defined; and I can read that 10 definition. (Reading) Controller means a device held in 11 the user's hand that allows hand or finger inputs to be 12 converted into electrical signals for manipulation of 13 images or graphics on a display device which are capable 14 of being perceived by a human. 15 Q. And applying that definition, have you looked to 16 see if this is present in the GameCube controller? 17 A. Yes. It certainly does describe the capabilities 18 of this controller. It can control images as described 19 in the definition there given us by Judge Clark. 20 Q. What have you concluded about this first bit of 21 claim 19? 22 A. Well, it is present in the controller; so, we can 23 check that one off. 24 Q. All right. What's the next part of claim 19 that 25 you want to consider?</p>	<p style="text-align: right;">Page 402</p> <p>1 THE COURT: You may. 2 THE WITNESS: Thank you. I wonder if I could 3 get a pointer, laser pointer. 4 Thank you. 5 A. Okay. Let me stand out of your way but where I can 6 still be heard. 7 Okay. So, this is the controller again. 8 It's redrawn here so that we can use some animations to 9 give you a better idea of what's going on. And this is 10 what you see if you take off the cover of the housing, 11 and we colored blue here this cross pad that sticks out 12 the top. 13 Now, if we take off that cross pad, 14 underneath it is a little rubber thing. That's called 15 "dome caps." And underneath them are some sensors 16 mounted to the circuit board. And you can see they are 17 labeled "left," "right," "up," and "down." So, what 18 happens is -- is you push down the button in the up 19 direction, for example. That forces down that dome cap, 20 and that closes the circuit here. It's essentially a 21 switch. So, this is a convenient way to make a bunch of 22 switches in a small space. And you can see that you 23 have four different sensors. 24 Now, these are unidirectional sensors. That 25 means I can only go in one direction. I can go up.</p>
<p style="text-align: right;">Page 401</p> <p>1 A. Okay. Here we have: Structure allowing hand 2 inputs rotating a platform on two mutually perpendicular 3 axes to be translated into electrical outputs by four 4 unidirectional sensors to allow controlling objects and 5 navigating a viewpoint. 6 Q. Okay. Has Judge Clark given us definitions of any 7 of the terms in that part of claim 19? 8 A. Yes. And the key here is "navigating a viewpoint," 9 towards the end of that element. Let me read that: 10 Navigating a viewpoint means positioning or orienting a 11 user's view. 12 Q. Okay. Is this part of claim 19 in the GameCube 13 controller? 14 A. Yes, it is. It describes the cross-switch or the 15 D-pad. And I can explain that in a little more detail. 16 Q. Have you -- sure. Go ahead. 17 A. Yeah. So, I've got a slide, if I could have that. 18 Q. Have you prepared some slides to help explain -- 19 A. Yes. 20 Q. -- your testimony and your research? 21 A. Yes, I have. 22 Q. Okay. Go ahead. 23 A. Okay. So -- 24 THE WITNESS: Your Honor, if I might stand up 25 again?</p>	<p style="text-align: right;">Page 403</p> <p>1 There is a separate sensor for down. I can go right, 2 but there is a separate sensor for left. So, they are 3 unidirectional and we have four of them and we have two 4 different directions. We have the up/down direction. 5 We have the left/right direction. So, all of those 6 pieces are present here in the cross pad. 7 Q. And is this structure to create outputs? 8 A. Yes, it is. So, the circuit board here is 9 essentially a bunch of fancy wiring. So, there is a lot 10 of copper traces that are sandwiched in between 11 insulators; and various computer chips are attached. 12 Some other sensors we'll talk about in a little bit. 13 And then these wires take the signal over, and 14 eventually that signal is sent over the cable you see at 15 the end of your controller there to the game console. 16 And the game console is the computer that's running the 17 video game. That's where the software does its thing. 18 So, these signals from the sensor, then, are 19 sent over that cable, where they can be used by the 20 programmer of the video game to control various things 21 inside the video game such as changing the viewpoint. 22 And it's clear from knowing how these work, if you're an 23 engineer and familiar with this kind of thing, that that 24 capability is present. And, furthermore, I played video 25 games where it works that way; you can use this to</p>

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<p style="text-align: right;">Page 404</p> <p>1 navigate your viewpoint. So, it's clear that capability 2 is present here in this device. 3 Q. I'm not sure if you said this or not; but just to 4 be clear, in addition to being capable of navigating a 5 viewpoint, is it capable of controlling objects? 6 A. Oh, yes, it is. Again, the signal that is 7 present -- that's generated here when it's sent over to 8 the game console can be used as a lot of things, 9 controlling objects and navigating a viewpoint included. 10 Q. So, what have you concluded about this second piece 11 of claim 19? 12 A. We've gone through all of it and it matches the 13 D-pad or cross-switch and, so, we should check it off. 14 Q. What's the next language in claim 19 that you'd 15 like to consider? 16 A. Okay. Let's see. My eyesight is not real good. 17 You'll forgive me if I read off this instead. 18 Okay. So, the next piece we have is: The 19 controller including a tactile feedback means for 20 providing vibration detectable by the user through the 21 hand operating the controller. 22 Q. Now, did Judge Clark define any of these terms for 23 us? 24 A. Yes, he did. "Detectable by the user" means 25 "capable of being perceived by the hand or ear of the</p>	<p style="text-align: right;">Page 406</p> <p>1 Q. That's the weight? 2 A. Oh, no. I'm sorry. Right here (indicating). 3 Q. That thing that looks about like a triangle? 4 A. Yeah. And it's off-center so that as it spins 5 around, it generates that vibration. 6 Q. All right. So, excuse my interruption; but what 7 did you tell us then about your conclusion on this third 8 piece of the language in claim 19? 9 A. Once again, it's a good description of this 10 component of the GameCube controller; so, we should 11 check it off. It's present. 12 Q. Tell us about the next piece of language that 13 you've considered in claim 19. 14 A. Certainly. Okay. Here we have (reading) a second 15 element movable on two mutually perpendicular axes, said 16 second element structured to activate two bi-directional 17 proportional sensors providing outputs at least in part 18 controlling objects and navigating a viewpoint. 19 Q. And, once again, has Judge Clark given us 20 definitions of any of these terms? 21 A. Yes, he has. In this case it's the term "movable 22 on two mutually perpendicular axes," which means capable 23 of 2 degrees of freedom of movement on axes that 24 intersect at a 90-degree angle. 25 Q. Okay. So, have you looked for this part of claim</p>
<p style="text-align: right;">Page 405</p> <p>1 user of the controller." 2 Q. Okay. Have you taken these words from the claim 3 and Judge Clark's definition and looked into the 4 GameCube controller to see if this is there? 5 A. Yes, I have. And, once again, it's this vibration 6 feedback motor. And I have a slide; but I can also show 7 you here that if you peek underneath the front of this, 8 there is the motor present inside the controller. And 9 here you can see what it looks like when it's removed. 10 So, we should check that one off. It's also present. 11 Q. Okay. But before we get along to that -- 12 A. Okay. 13 Q. -- this picture is the inside -- is that the inside 14 of that demonstration unit that you showed us before? 15 A. I believe so. So, again, if you take this -- 16 Q. We heard -- I'm sorry. Go ahead. 17 A. Yeah. If you take this apart, this is what you 18 see. The weight is separated here so you can actually 19 see it. It's inside a container here; but once you take 20 it apart the next step, you can see it. We didn't do 21 that here so it would actually operate and we can show 22 you how it works. 23 Q. Show us the weight on the slide. 24 A. Oh, yeah, sure. It's actually this piece 25 (indicating) right here.</p>	<p style="text-align: right;">Page 407</p> <p>1 19 to see if it's in the GameCube controller? 2 A. Yes, I have. And this describes the thumbstick 3 feature. So, we have two thumbsticks here. And if you 4 take them apart, it turns out the sensor pieces 5 underneath these are the same. The caps are different 6 shapes; they're different colors. But the way they 7 function is the same. 8 So, we'll pick one and talk about that here. 9 Could I have my next slide, please? 10 And here you see them again with the cover 11 taken off so you can see what's underneath. And this is 12 on one of those thumbsticks. 13 You can move on. 14 And this animation will show you how it 15 works. So, there we go moving in the right/left and 16 moving in the up/down direction. 17 Now, in each case, as this thing moves, there 18 is a little set of shafts in there; and they couple to 19 these darker boxes down below. And those darker boxes 20 are the sensors. So, here you can see -- as this one 21 rotates, you see the center shaft of the sensor move. 22 Those boxes are called "rotary potentiometers," and they 23 work something like the dimmer switch in your dining 24 room so you can turn the light up or down to make it 25 brighter or darker. Another analogy might be the gas</p>

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<p style="text-align: right;">Page 408</p> <p>1 pedal on a car. So, it isn't just on/off. You can 2 control how fast the car goes or how bright the light is 3 to any value you want in between. 4 Okay. So, here we have our second element, 5 then, is the top of the joystick here; and it activates 6 these two bi-directional proportional sensors. They are 7 bi-directional because they can go right or left, one 8 single sensor. The other sensor can go up or down; so, 9 that's bi-directional. And proportional, again, is this 10 idea that it can hit any value from a small value to a 11 high value or anything in between. 12 Q. And does this create outputs? 13 A. Yes. So, once again, these are the wires coming 14 out the bottom. They are soldered onto the circuit 15 board. Those signals are transmitted over the cable to 16 the game console, and there the game designer can write 17 software that uses those signals in lots of different 18 ways. And the language in the element here about 19 controlling objects and navigating a viewpoint is 20 certainly met. 21 Once again, I've played games where I've used 22 these thumbsticks to do those things in the video games; 23 so, I'm certain that capability is present in the 24 controller. 25 Q. So, what have you concluded about this fourth part</p>	<p style="text-align: right;">Page 410</p> <p>1 one. They are not coupled at all with each other. 2 So, we can go ahead and check off that 3 element. 4 Q. And what's the last piece of claim 19 that you 5 considered? 6 A. Okay. And the last one is just a continuation of 7 that last piece. It says: A button sensor, said button 8 sensor outputs at least on/off data to allow controlling 9 of the objects. So, that -- 10 Q. Is that in the controller? 11 A. Yes, indeed. And that's just the sensor that's 12 hooked up to these trigger buttons. Again, in looking 13 at how they are constructed, the sensors are 14 constructed, and in playing video games, I've confirmed 15 that they can be used, once again, to allow controlling 16 objects in the video game. So, that capability is 17 present here again; and we can check off that last 18 element. 19 Q. All right. Why don't you take the witness stand 20 again while I do that. 21 It looks as though, Professor Howe, that -- 22 THE COURT: Excuse me one minute, counsel. 23 Ladies and gentlemen, let me remind you you 24 have in your juror book a copy of the patent with the 25 actual claims because we're going to start getting</p>
<p style="text-align: right;">Page 409</p> <p>1 of claim 19? 2 A. Again, it's a good description of the GameCube 3 controller; so, we can check it off. 4 Q. What's next? 5 A. Well, okay. The next piece starts out: A third 6 element -- and then all the words are exactly the same 7 as the piece we just read that starts out "a second 8 element." So, this basically says one more just like 9 the last one. 10 Now, as I mentioned, here we have two 11 thumbsticks; and when you take off those different caps, 12 underneath it, you see the same sensing structure. So, 13 at the end of the day, we have two that are the same 14 and, thus, we've met that next term the same way we did 15 in the previous one and we can move along. 16 Q. So, check it off? 17 A. Check it off, yep. 18 Q. And what's next? 19 A. Next, we have: A plurality of independent 20 finger-depressible buttons, each button associated with. 21 So, the idea here is that we have these 22 triggers -- this is a description of these triggers and 23 they are obviously finger-depressible. You can put one 24 finger on each one to move it up and down, and they are 25 independent. I can work this one, or I can work this</p>	<p style="text-align: right;">Page 411</p> <p>1 testimony from both sides about them. You have the 2 patent, where you have the claims set out there; and you 3 also have the large size version under the "Claims" 4 section, if you want to follow along in your books. 5 Go ahead, counsel. 6 BY MR. CAWLEY: 7 Q. And somebody handed me a note. Just to make sure 8 I'm clear, Dr. Howe, how did you define the plurality of 9 finger-depressible buttons? What does that mean? 10 A. I'm sorry. I never defined "plurality" for you, 11 did I? 12 Plurality just means more than one. And as 13 we saw, there are two triggers; so, we've definitely met 14 that criteria as well. 15 Q. So, it looks as though we've checked off all the 16 parts of claim 19. 17 A. That's right. 18 Q. What does that mean? 19 A. Well, that means that the GameCube controller 20 infringes claim 19. 21 Q. And is that your conclusion after your study? 22 A. Yes, it is. 23 Q. Now, do you see anywhere in claim 19 where it says 24 that it requires a single input member? 25 A. No. Those words are not present.</p>

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<p style="text-align: right;">Page 412</p> <p>1 Q. What kind of input members does claim 19 talk 2 about? 3 A. Well, there's more than one. You know, it starts 4 out, for instance -- it talks about (reading) a 5 structure allowing hand inputs rotating a platform on 6 two mutually perpendicular axes. And then on down, all 7 the way to the bottom, there is a plurality of 8 independent finger-depressible buttons. So, there is 9 not just one input element described in this claim. 10 Q. And there's been a lot of talk in the courtroom 11 about what Mr. Armstrong's invention is or is not. Is 12 it your understanding that these words define what the 13 invention of claim 19 is? 14 A. Yes. That's right. 15 Q. Now, does claim 19 require a 6-degree-of-freedom 16 controller? 17 A. Well, let's see. It doesn't say so explicitly but 18 it describes a number of inputs and they add up to at 19 least six; so, in effect, it does describe a 20 6-degree-of-freedom controller. 21 Q. Are there other ways to make a 6-degree-of-freedom 22 controller other than what's described in claim 19? 23 A. Certainly. This is a particularly nice one, but 24 there are many ways you can make a 6 degree of -- 25 Q. What's the simplest way you can think of to make a</p>	<p style="text-align: right;">Page 414</p> <p>1 you'd like to talk about that you've studied for 2 purposes of seeing if the GameCube controller infringes 3 some other claim? 4 A. Well, let's go to claim 22 next. And we have a 5 slide rather than a chart for this one. If I can begin 6 by reading it: A hand-operated controller according to 7 claim 19 wherein -- and those words mean it's a 8 dependent claim; and that is to say, this is saying that 9 for this invention, it includes everything that's 10 already in claim 19 plus some new things. 11 Q. Okay. So, does that mean that if we were really 12 going to be tiresome about this, we would take those 13 first few words and go back and recheck off all of these 14 things from claim 19? 15 A. Yes, but I'm hoping we're not quite that thorough. 16 Q. Okay. Well, I'm in agreement with you. So, since 17 you've already shown us -- you've already shown us that 18 everything in claim 19 is there, let's use that as the 19 launching point; and tell us what's new or additional in 20 this claim 22 that you have to tell us about. 21 A. Sure. Well, the next words here are: Wherein said 22 button sensor outputs data proportionate to depression 23 of one of said buttons. 24 Q. Okay. And, then, tell us what that means and if 25 you found that in the GameCube controller.</p>
<p style="text-align: right;">Page 413</p> <p>1 6-degree-of-freedom controller? 2 A. Well, I suppose you could put six push buttons on a 3 box and call that a 6-degree-of-freedom controller. It 4 would give you six signals. 5 Q. How would that compare to the controller that 6 you've seen described in claim 19? 7 A. Well, I would say it's a piece of junk, you'll 8 forgive me. It would not do a very good job of 9 controlling video games; although, it would have six 10 degrees of freedom in it. 11 Q. Now, now that you have shown us your analysis of 12 claim 19 for the Nintendo GameCube controller, what's 13 the next step in your study? 14 A. Okay. Well, I looked at other claims. 15 Q. Okay. Now, "looked at other claims" -- and for 16 what product? 17 A. Okay. Well, let's stick with the GameCube. There 18 are several more claims which are infringed. 19 Q. Okay. So, do you want to go through all of the 20 claims that the GameCube has been accused of infringing 21 first? 22 A. Yes. I think it's easier if we go through GameCube 23 first, and then we'll talk about some of the other 24 controllers. 25 Q. Okay. Very good. Then, what's the next claim</p>	<p style="text-align: right;">Page 415</p> <p>1 A. Sure. Well, it refers to the button sensors. And 2 the button sensors, you'll recall, were just the 3 triggers here, the two of them on the front. 4 And it goes on to say that they output data 5 proportionate to the depression of one of the buttons. 6 So, this is the idea of proportional sensors again. 7 It's like your dimmer switch in your dining room or your 8 gas pedal on your car. It's not just on/off. It's all 9 the values in between. So, I can slide my finger slowly 10 up and down. That might be the gas pedal on a driving 11 game, for instance. And, so, this, in fact, matches the 12 description given in claim 22. 13 Q. So, can we check this off as infringed? 14 A. Yes, please. 15 Q. And what is the next claim of the patent that 16 you've considered for infringement of the GameCube? 17 A. Let's go on to claim 23. Okay. Claim 23 states: 18 A hand-operated controller according to claim 22 -- 19 Q. Okay. Let me stop you there. 20 So, does that mean -- since claim 22 was 21 based on claim 19, you have to have, for this claim 23, 22 everything in 19 -- 23 Is that right? 24 A. That's right. 25 Q. And you've already found that.</p>

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<p style="text-align: right;">Page 416</p> <p>1 A. Yep.</p> <p>2 Q. -- and then everything in 22 that we just saw,</p> <p>3 right?</p> <p>4 A. Yep.</p> <p>5 Q. And you found that.</p> <p>6 A. Indeed.</p> <p>7 Q. Plus something additional; is that right?</p> <p>8 A. That's right.</p> <p>9 Q. Tell us what the additional thing is in claim 23.</p> <p>10 A. So, the additional part here are the words:</p> <p>11 Wherein the bi-directional proportional sensors are</p> <p>12 rotary potentiometers.</p> <p>13 So, here that describes the thumbsticks. And</p> <p>14 we've already been through this, in fact, because the</p> <p>15 bi-directional proportional sensors here were, as we saw</p> <p>16 in our illustration, rotary potentiometers. And, so, in</p> <p>17 fact, we've already ascertained that the description</p> <p>18 here matches the GameCube controller.</p> <p>19 Q. So, what have you concluded about claim 23?</p> <p>20 A. That we should check it off because it's infringed.</p> <p>21 Q. Thank you. And what's the next claim that you've</p> <p>22 studied?</p> <p>23 A. Okay. Next, I'd like to do claim 16.</p> <p>24 Q. Okay. This one looks like a problem because it's</p> <p>25 got a lot of words in it.</p>	<p style="text-align: right;">Page 418</p> <p>1 converted into electrical signals for manipulation of</p> <p>2 images or graphics on a display device which are capable</p> <p>3 of being perceived by a human.</p> <p>4 Q. All right. And have you taken into account and</p> <p>5 applied that definition and looked for that in the</p> <p>6 GameCube?</p> <p>7 A. Yes, indeed.</p> <p>8 So, it's clear that the GameCube controller</p> <p>9 matches that definition of a 3-D graphics controller for</p> <p>10 controlling a television-based game.</p> <p>11 Q. Okay. What's the next new language or words in</p> <p>12 claim 16 that you haven't told us about yet?</p> <p>13 A. Okay. Well, this looks a little messy, if I could</p> <p>14 have the next --</p> <p>15 Q. Well, I'm looking at 3-D graphic here; and let me</p> <p>16 just make sure that I understand.</p> <p>17 Does 3-D, as the judge defined it, mean like</p> <p>18 those old movies that I went to as a kid where you have</p> <p>19 cardboard glasses and you put them on and something</p> <p>20 jumps out of the screen at you?</p> <p>21 A. No. I certainly remember those movies where things</p> <p>22 come out of the screen, and this is completely</p> <p>23 different. Again, we have a definition from Judge Clark</p> <p>24 which gives us the technical meaning of that term here;</p> <p>25 and it's not a 3-D movie.</p>
<p style="text-align: right;">Page 417</p> <p>1 A. Well, fortunately a lot of them are the same, not</p> <p>2 all of them. But, for instance, there is a description</p> <p>3 in there about an element to activate first two</p> <p>4 bi-directional proportional sensors. That's the same</p> <p>5 description of the joystick. We've already done that.</p> <p>6 Q. Okay. Well, then, let's take this approach. If</p> <p>7 there's something in this claim that you've already</p> <p>8 discussed and already decided or explained to us how</p> <p>9 it's in the GameCube, let's not take the time to discuss</p> <p>10 it all over again. Instead, let me ask you to point out</p> <p>11 what's new in this claim 16 that you have not discussed</p> <p>12 yet and have not showed us how that new piece is present</p> <p>13 in the GameCube controller.</p> <p>14 A. Very good. I like it.</p> <p>15 So, let's begin at the first part because</p> <p>16 that is something new; and I have a slide that</p> <p>17 highlights this. It begins: A 3-D graphics controller</p> <p>18 for controlling a television-based game.</p> <p>19 Now, a couple of those terms were defined in</p> <p>20 the court's claim construction order. Let me read those</p> <p>21 definitions.</p> <p>22 "3-D" means capable of movement in 6 degrees</p> <p>23 of freedom.</p> <p>24 And "controller" means a device held in the</p> <p>25 user's hand that allows hand or finger inputs to be</p>	<p style="text-align: right;">Page 419</p> <p>1 Q. Okay. And, likewise, can the GameCube controller</p> <p>2 control graphics that are movable in 6 degrees of</p> <p>3 freedom?</p> <p>4 A. Yes, it can.</p> <p>5 Q. Tell us about that. Why do you say that the</p> <p>6 controller is capable of controlling graphics movable in</p> <p>7 6 degrees of freedom?</p> <p>8 A. Right. Well, we can, first of all, just count up</p> <p>9 the number of different ways you can control things.</p> <p>10 So, with the directional pad we can do one direction</p> <p>11 that's right or left, another that's up and down. We've</p> <p>12 got the same thing, two directions on each of the</p> <p>13 thumbsticks. So, if we just add those up, that alone</p> <p>14 gives us six different degrees of freedom or six</p> <p>15 different ways of controlling things.</p> <p>16 Q. And is this helpful in controlling 3-D graphics?</p> <p>17 A. Certainly.</p> <p>18 Q. How is that?</p> <p>19 A. Well, it's useful in controlling a single object</p> <p>20 that moves in 6 degrees of freedom. So, for instance, a</p> <p>21 spaceship in outer space can move in a line in three</p> <p>22 different ways. It can also rotate in three different</p> <p>23 ways. But it can also be mapped to a lot of other</p> <p>24 systems; so, it can be used to control multiple objects</p> <p>25 that have fewer degrees of freedom of control.</p>

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<p>1 Q. Well, let's talk about some specific games. Have 2 you played any car racing games? 3 A. Yes, I have. 4 Q. How do you control a car on the screen in some of 5 the car racing games you've played? 6 A. Okay. Well, obviously there's steering. There's 7 right and left. And then there's, you know, usually a 8 brake and an accelerator. So, you can go forward or 9 less forward, I guess. 10 Q. Well, I'm not sure I counted right; but are the 11 things you just described to play the racing game 6 12 degrees of freedom? 13 A. Well, no. That really is just two different 14 directions, the right/left direction for rotation and 15 then the forward direction. But you can imagine having 16 other things you'd like to control. So, for instance, 17 you might like to have the -- a separate control for the 18 brake and for the accelerometer -- and for the 19 accelerator. Those are separate controls in a real car. 20 Even though they really control the same thing, the same 21 direction, having separate functions for those would be 22 nice. 23 There are other things like the viewpoint. 24 You might want to be able to get a bird's-eye view so 25 you can see what's ahead as you're driving along and</p>	<p>1 a sheet. And it goes on to talk about a first sheet and 2 a second sheet. 3 And if I can pull this out here, you can see 4 that one of the sheets -- and do I have a slide on this, 5 too? Yeah. 6 So, one of the sheets is shown in dark green 7 there. That's the main circuit board here. And it has 8 a thumbstick and the directional pad attached to it. 9 But then the second thumbstick, you see the 10 yellow one here, is actually attached to a different 11 little circuit board connected to the first one by 12 wires. 13 So, there are two sheets; and they are 14 located on different planes; that is, one is mounted 15 higher than the other. 16 THE COURT: All right. Excuse me, counsel. 17 Ladies and gentlemen, we're going to go ahead 18 and take a break. I'll ask you to be back at ten of. 19 Please remember my instructions. Don't discuss the case 20 among yourselves. 21 (The jury exits the courtroom, 2:34 p.m.) 22 THE COURT: We'll be in recess until ten of. 23 (Recess, 2:34 p.m. to 2:48 p.m.) 24 (Open court, all parties present, jury 25 present.)</p>
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<p>1 other things. It might be fun if you go off the road in 2 a driving game, you run into some mud and you have to 3 turn on the windshield wipers so you can see again out 4 the windshield in a game. 5 So, there are a lot of functions; and 6 designers can use them in creative ways to make 7 interesting and fun video games. 8 Q. Okay. We're still on claim 16, right? 9 A. That's right. 10 Q. Why don't you take us, then, to the new things that 11 are in claim 16 that you have not talked about yet? 12 A. Okay. Now if I could have my next slide here. 13 So, there are a bunch of different things 14 highlighted there; and they all talk about sheets. So, 15 for instance, down towards the bottom there, it talks 16 about (reading) sensors at least in part connected to a 17 second sheet, said first sheet located on a first plane 18 and said second sheet located on a second plane. And, 19 so, the yellow stuff above that also talks about these 20 ideas of sheets. 21 Now, the sheets in this case are circuit 22 boards. So, it's a very general term. And in the case 23 of the GameCube controller, you can see that these -- 24 the circuit board here onto which the various sensors 25 and electronics components are mounted is in the form of</p>	<p>1 THE COURT: Go ahead, counsel. 2 MR. CAWLEY: Thank you, your Honor. 3 BY MR. CAWLEY: 4 Q. Professor Howe, where were we? 5 A. Well, let's see. I think we were talking about 6 claim 16 and we had gotten to the part where we 7 mentioned that there were two sheets inside the GameCube 8 controller and I think I showed you in the actual 9 disassembled controller, but let me point it out on the 10 slide here. 11 The dark green is that first large circuit 12 board and you can see it has one of the thumbsticks and 13 the directional pad on it and if you flip it over, it 14 actually has the trigger sensors on that, as well. 15 But then if we could remove those various 16 components, you'll see there is a second bright green 17 circuit board there that's on a different level. 18 So, this meets the condition given in the 19 claim that there are two sheets on two planes. 20 Q. Thank you. And I think, to reorient us here, you 21 were in the process of going through this claim 16 and 22 telling us just about the new additional things that you 23 hadn't discussed yet. So, please proceed with that. 24 A. Okay. So, let's see, the next piece here is shown 25 highlighted; and it talks about (reading) an independent</p>

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<p style="text-align: right;">Page 428</p> <p>1 before. 2 Q. Okay. What else is new? 3 A. Okay. Then all the way down at the bottom. Good. 4 (Reading) A sheet connecting to at least eight of the 5 sensors. 6 Well, the sheet is the circuit board. So, 7 this is saying that you want to have at least eight of 8 them connected to one circuit board. So, here is our 9 circuit board again. We have the D-pad. That's got the 10 right/left, up and down. That's four sensors. One of 11 the thumbsticks. It's got the two directions. So, 12 that's another two sensors. Those are bi-directional 13 sensors. And then we've got those trigger sensors on 14 the front here that are connected to the bottom of the 15 board. So, this sheet in this case has eight -- four, 16 two, and two. 17 Q. So, looking for all of the things that you told us 18 about before that you told us were in the GameCube and 19 that are also in this claim 14 and then looking at the 20 things that are new in claim 14 that you've just told us 21 about, what have you concluded about how the GameCube 22 matches up to claim 14? 23 A. Well, all of the elements are there. We've gone 24 through and checked off both the old ones and the new 25 ones now. And, so, claim 16 is infringed by the</p>	<p style="text-align: right;">Page 430</p> <p>1 wireless connection so that you don't need to worry 2 about that cable while you're playing. 3 It's also got a bigger housing, and one 4 reason for that is it has to have batteries so it can 5 operate. This one can get the power over the cable from 6 the console. This one has to have batteries in it. So, 7 it's kind of a bigger, clunkier-looking housing. 8 Now, the actual input elements are the same. 9 You can see there are two thumbsticks. There is the 10 cross pad, a bunch of buttons on the front. If we look 11 at the trigger, the trigger configuration is the same. 12 There is an extra on/off switch here which is present, 13 an extra little dial here. But the basic input elements 14 that we've been talking about are just the same. 15 Now, there is one key difference. This 16 device, the Wavebird wireless controller, does not have 17 rumble. It does not have the motor in it that gives you 18 active tactile feedback. 19 Q. Okay. So, let me make sure that I understand where 20 we are, then. You told us that this new controller that 21 we're looking at has a wireless communicator in it as 22 opposed to the wire of the first one and the new one has 23 an extra on/off switch and a little bit different 24 housing. Do any of those things have anything to do 25 with infringement?</p>
<p style="text-align: right;">Page 429</p> <p>1 GameCube controller. 2 Q. You said 16? 3 A. I'm sorry. Claim 14 is infringed by the GameCube 4 controller. Sorry. 5 Q. Okay. Now, is that all of the claims that you have 6 considered relevant to the GameCube controller? 7 A. Yes, that's right. We're through with GameCube. 8 Q. Have you also considered other controllers? 9 A. Yes, I have. 10 Q. Okay. Let me hand you -- 11 MR. CAWLEY: If I may approach, your Honor. 12 THE COURT: You may. 13 BY MR. CAWLEY: 14 Q. -- what has been marked -- at least the picture of 15 it has been marked as Plaintiff's Exhibit 440. 16 Could you tell us what that is, Professor 17 Howe? 18 A. Yes. This is the GameCube Wavebird wireless 19 controller. 20 Q. Okay. Can you tell us how this controller compares 21 to the one that the jurors have in their hands, the 22 GameCube controller? 23 A. Sure. Well, as you can see, the input looks the 24 same. The big difference here, of course, is that this 25 one has a cable and this one doesn't. This has a</p>	<p style="text-align: right;">Page 431</p> <p>1 A. No. None of those are described by the claims 2 we've been talking about. 3 Q. Okay. So, you've also said, though, that there is 4 a difference between the GameCube controller that the 5 jurors have and this Wavebird controller because -- I 6 think you said that the Wavebird controller has no 7 rumble motor. Correct? 8 A. That's it, yes. 9 Q. Okay. So, for the claims of the patent that say, 10 for example -- where is that in claim 19? 11 A. Let's see. Again, I have to look at my copy. 12 Q. It's the third? Okay. For the claims such as 13 claim 19 that say (reading) the controller including a 14 tactile feedback means, which we've heard is rumble, 15 does that mean that claim 19 is infringed? 16 A. No. It is not infringed by this controller. 17 Q. Okay. So, we couldn't -- for this controller at 18 least, we couldn't check off this box, right? 19 A. Correct. So, it does not infringe. 20 Q. Okay. But are there any claims of the patent, the 21 '700 patent, that are still infringed by the Wavebird 22 even though it doesn't have rumble? 23 A. Yes, there is, in fact. And that is claim 14. 24 So, claim 14 never describes this tactile 25 feedback feature. It's not present there.</p>

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<p>1 Q. Okay. Is everything else there?</p> <p>2 A. Yes. All the rest of the sensors, the input</p> <p>3 switches and all that we talked about for the GameCube</p> <p>4 controller, are just the same. They're accurately</p> <p>5 described by the claim language. So, for that case, for</p> <p>6 claim 14, for the same reasons we talked about with the</p> <p>7 GameCube, the Wavebird controller infringes claim 14.</p> <p>8 Q. Thank you, sir. Is that the only claim of the</p> <p>9 patent that is infringed by this Wavebird controller?</p> <p>10 A. That's the only one we're discussing, yes.</p> <p>11 Q. Shall we move on to a new controller, then?</p> <p>12 A. Yes, let's do.</p> <p>13 Q. Which one is this?</p> <p>14 A. Well, why don't we talk about the Wii Remote with</p> <p>15 the Wii Classic Controller.</p> <p>16 Q. All right.</p> <p>17 MR. CAWLEY: Your Honor, I'd like to approach</p> <p>18 the witness to hand him Plaintiff's Exhibit 416 and 414.</p> <p>19 THE COURT: You may.</p> <p>20 MR. CAWLEY: And at the same time, we request</p> <p>21 permission to publish replicas -- or not replicas,</p> <p>22 publish duplicates of these exhibits to the jury.</p> <p>23 THE COURT: Any objection?</p> <p>24 MR. PRESTA: No, your Honor.</p> <p>25 THE COURT: Okay. You may do so. Will you</p>	<p>1 if you would, please.</p> <p>2 A. (Complying.)</p> <p>3 Q. Can the Wii Classic be used to control games by</p> <p>4 itself?</p> <p>5 A. No, it cannot.</p> <p>6 Q. And why is that?</p> <p>7 A. It can't communicate with the console, with the</p> <p>8 computer that runs the video games. It has to be</p> <p>9 connected to the Wii Remote, and then the Wii Remote has</p> <p>10 a wireless connection over to the console.</p> <p>11 Q. So, is it true that you have to have the Wii Remote</p> <p>12 connected to be able to use the Wii Classic Controller?</p> <p>13 A. That's right. The two of them together really make</p> <p>14 up one controller in terms of communicating with the</p> <p>15 console.</p> <p>16 Q. And how does one use the controller?</p> <p>17 A. Well, there are a couple different ways you can do</p> <p>18 it. For instance, you can hold the Remote in one hand</p> <p>19 and use the cross pad and buttons there. You could hold</p> <p>20 the Classic in the other and use the thumbstick here.</p> <p>21 Another alternative, you might drop this in</p> <p>22 your lap and then you could use two hands, one on each</p> <p>23 thumbstick, and so on.</p> <p>24 Q. Okay. Now, you've told us that you can't use the</p> <p>25 Classic by itself. Can you use the Remote by itself</p>
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<p>1 collect back up the other ones?</p> <p>2 MR. CAWLEY: Yes, your Honor. If I could ask</p> <p>3 everyone to hand the old controllers up and we'll give</p> <p>4 you the new ones.</p> <p>5 BY MR. CAWLEY:</p> <p>6 Q. All right. Professor Howe, show us what this is.</p> <p>7 A. Sure. Well, this is the Wii Classic Controller</p> <p>8 plugged into the Wii Remote controller.</p> <p>9 Q. Okay. And I guess since part of this is being</p> <p>10 written down and just so people who are reading it</p> <p>11 instead of looking at what you have in your hands --</p> <p>12 give us a little more of a visual description of which</p> <p>13 one is which.</p> <p>14 A. Oh, sure. Okay. So, the Wii Classic Controller</p> <p>15 has a pair of these thumbsticks, once again. It has a</p> <p>16 cross pad, some buttons on the face of it; and it also</p> <p>17 has a pair of these triggers and some buttons on the</p> <p>18 front, not unlike the GameCube controller you saw</p> <p>19 earlier.</p> <p>20 Then the other piece of this, the Wii Remote</p> <p>21 controller, the long, thin one, has a cross pad on the</p> <p>22 top and has some buttons on the face. It has a simple</p> <p>23 trigger, an on/off switch for a trigger underneath it.</p> <p>24 And the two are connected by a cable.</p> <p>25 Q. Now, can the Wii Classic -- and hold that up again</p>	<p>1 without the Classic?</p> <p>2 A. Yes, you can.</p> <p>3 Q. And is there, nevertheless, some useful</p> <p>4 functionality in the Classic part?</p> <p>5 A. Sure. For instance, if you're used to playing a</p> <p>6 game, perhaps from the old GameCube that you want to</p> <p>7 play on the Wii, you might want to have the same</p> <p>8 interface functions that you did on that old controller,</p> <p>9 thus the name the "Classic Controller."</p> <p>10 Q. Okay. Does the Wii Classic Controller have a</p> <p>11 rumble motor inside of it?</p> <p>12 A. Well, this piece here does not have a rumble motor</p> <p>13 in it; however, the Wii Remote does have a rumble motor</p> <p>14 in it.</p> <p>15 Q. And since you've told us that you can't use the</p> <p>16 Classic piece without the Remote, does that mean that</p> <p>17 every time you're using the Wii Classic, you have a</p> <p>18 rumble feature?</p> <p>19 A. Yes, you do. That's right.</p> <p>20 Q. And have you actually used this setup of</p> <p>21 controllers to see if it uses rumble?</p> <p>22 A. Yes. For instance, you can use the Wii Remote to</p> <p>23 go through the menu options in a game; and every time</p> <p>24 you go from one menu option to the next, you feel a</p> <p>25 little pulse of vibration and that helps let you know</p>

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<p style="text-align: right;">Page 436</p> <p>1 how far down the menu you've gone and that sort of 2 thing, gives you useful feedback. 3 Q. And is the rumble in this controller capable of 4 being used in other ways in other games? 5 A. Sure. The capability is there. So, we know, 6 because we've observed that -- I've observed that, that 7 the programmer can activate that rumble feature at will; 8 that is, there is a built-in way in the system for doing 9 that. So, a game controller -- a game programmer, 10 rather, could put that feature in if they want the 11 capabilities built into the system. 12 Q. And is this rumble that you felt in the menu on the 13 Wii screen menu feature? 14 A. I'm sorry. Is it in the Wii... 15 Q. The Wii screen menu, the menu for the Wii screen. 16 A. Yes. 17 Q. Okay. Now, tell us about the other features of the 18 controller. Does this controller have many of the same 19 features as the other controllers that we've seen? 20 A. Yes, it does. And as I mentioned before, a lot of 21 the input elements are just the same as with the 22 GameCube. 23 Q. Have you taken these controllers apart to be sure 24 they work in the same way? 25 A. Yes, I have.</p>	<p style="text-align: right;">Page 438</p> <p>1 Q. And what's the last claim you've considered for 2 this controller? 3 A. Claim 23. And once again, it's a dependent claim. 4 It says everything in claim 22 plus the bi-directional 5 proportional sensors are rotary potentiometers. And 6 sure enough, if you look underneath the thumbsticks 7 here, just as with the GameCube, they are rotary 8 potentiometers. So, once again, all the claim terms are 9 met; and this combination of the Classic and Remote 10 infringes claim 23. 11 Q. Okay. 12 MR. CAWLEY: May I approach, your Honor? 13 THE COURT: You may. 14 MR. CAWLEY: I'd like to provide the witness 15 with Plaintiff's Exhibit 418, the Wii Nunchuk connected 16 to the Wii Remote. I'll ask the court if we may publish 17 this controller to the jury. 18 THE COURT: Any objection? 19 MR. PRESTA: No, your Honor. 20 THE COURT: You may. 21 BY MR. CAWLEY: 22 Q. All right, Professor Howe. This is the last of the 23 controllers that you're going to tell us about; is that 24 right? 25 A. That's right.</p>
<p style="text-align: right;">Page 437</p> <p>1 Q. And have you concluded that they do? 2 A. Yes. They do. 3 Q. And have you -- as a result of that study, have you 4 reached an opinion about whether the Wii Classic 5 Controller connected to the Wii Remote controller 6 infringes any of the asserted claims? 7 A. Yes, I have. 8 So, for instance, claim 19, we can go through 9 and once again identify each of the elements in the 10 claim just as we did with the GameCube controller and 11 show that they are equivalent; and I performed that 12 exercise. But to save time, we might simply note that 13 they are the same and check them off in this case. 14 Q. Okay. And what's the next claim that you've 15 studied and found the same features in this controller 16 as in the earlier controller you described to us? 17 A. Okay. Let's go to claim 22. And as before, this 18 is dependent on claim 19; so, we've checked off claim 19 19 terms. And now we need to have the button sensor 20 outputs data proportionate to depression of one of the 21 buttons. In the GameCube, that was the trigger; and 22 once again, here it's the trigger. 23 Q. Okay. So, what have you concluded about this 24 controller's infringement of claim 22? 25 A. So, the Wii Remote and Classic infringe claim 22.</p>	<p style="text-align: right;">Page 439</p> <p>1 Q. So, would you please explain to the jury what they 2 are holding in their hands as Plaintiff's Exhibit 418? 3 A. Sure. Once again, we have the Wii Remote. This 4 time, plugged into it, we find the Wii Nunchuk 5 controller. And the Nunchuk controller has one 6 thumbstick, and it has a couple of buttons on the front 7 where the trigger goes. 8 Q. Now, can the Wii Nunchuk controller -- and hold 9 that up again so we make sure we know what we're looking 10 at. 11 A. (Complying.) 12 Q. Can the Wii Nunchuk be used by itself? 13 A. No. It's just like the Classic. It doesn't have 14 any way of communicating with the console. You have to 15 plug it into the Wii Remote, and then the Wii Remote can 16 communicate wirelessly with the video game. 17 Q. So, do you have to have both things operating 18 together to be able to use the Nunchuk? 19 A. That's right. 20 Q. And together do they both infringe at least one 21 claim of the patent? 22 A. Yes, they do. 23 Q. What claim is that? 24 A. Could I have my slide, please? 25 Claim 19. I'll just say it.</p>

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<p style="text-align: right;">Page 444</p> <p>1 These are things you put your thumb --</p> <p>2 Q. You call that the "second element" one here?</p> <p>3 A. You can call that the "second element," yes.</p> <p>4 Q. Is that present in the device?</p> <p>5 A. Yes, it is.</p> <p>6 Q. Can we check it off?</p> <p>7 A. Please.</p> <p>8 Q. Okay. And, then, how about this one?</p> <p>9 A. Well, that one describes the accelerometer in this</p> <p>10 case. So, inside the Remote, as we saw, there is a</p> <p>11 little accelerometer chip; and that's able to sense</p> <p>12 motion on two perpendicular axes, as required in the</p> <p>13 claim language there. It's able to actuate --</p> <p>14 structured to activate two bi-directional proportional</p> <p>15 sensors. Those are the spring sensors we saw in our</p> <p>16 animation there and they provide outputs that we know</p> <p>17 can control objects and navigate viewpoints in the video</p> <p>18 game because we play video games -- I've played video</p> <p>19 games where you are able to do that. So, all the</p> <p>20 structure and the capability described there is present</p> <p>21 through that accelerometer.</p> <p>22 Q. So, have you concluded that this piece in claim 19</p> <p>23 is there?</p> <p>24 A. Yes, it is.</p> <p>25 Q. Can we check it off?</p>	<p style="text-align: right;">Page 446</p> <p>1 controller including a tactile feedback means for</p> <p>2 providing vibration detectable by the user through the</p> <p>3 hand operating the controller.</p> <p>4 So, as I said before, there's a rumble motor</p> <p>5 inside the Wii Remote; and that produces a vibration you</p> <p>6 can easily see when the game programmer activates it.</p> <p>7 So, we can check that one off.</p> <p>8 Okay. So, we've already done the next two.</p> <p>9 And then at the bottom, (reading) a plurality</p> <p>10 of independent finger-depressible buttons. And we've</p> <p>11 got lots of buttons here. There are buttons on the Wii</p> <p>12 Remote; and there are buttons on the Nunchuk, as well.</p> <p>13 So, we match that plurality, more than one condition.</p> <p>14 And it says -- and we can check that one off.</p> <p>15 And, finally, (reading) each button is</p> <p>16 associated with a button sensor, said button sensor</p> <p>17 outputs at least on/off data to allow controlling of the</p> <p>18 objects.</p> <p>19 So, each of these buttons, in fact, does put</p> <p>20 out on/off data; and we've confirmed by playing games,</p> <p>21 for instance, that those signals are useful for</p> <p>22 controlling objects. So, once again, it gives a good</p> <p>23 description of this controller. We can check that one</p> <p>24 off, as well.</p> <p>25 Q. Dr. Howe, they are all checked off. What have you</p>
<p style="text-align: right;">Page 445</p> <p>1 A. Yes, please.</p> <p>2 Q. All right. Now, just to make sure that we've been</p> <p>3 thorough and that we all remember your conclusions at</p> <p>4 the end of the trial, would you quickly go through the</p> <p>5 things in claim 19 that are not yet checked off, tell us</p> <p>6 if they're in the Wii Nunchuk with Remote and tell me if</p> <p>7 I can check them off or not.</p> <p>8 A. Okay. Let's go through that.</p> <p>9 So, the first part is a hand-operated</p> <p>10 controller; and, of course, these are -- according to</p> <p>11 the definitions, the claim construction definitions that</p> <p>12 we have from the court, these two constitute a</p> <p>13 hand-operated controller. So, we can check the first</p> <p>14 element off.</p> <p>15 The next part we have here is (reading)</p> <p>16 structure allowing hand inputs rotating a platform on</p> <p>17 two mutually perpendicular axes to be translated into</p> <p>18 electrical outputs by four unidirectional sensors to</p> <p>19 allow controlling objects and navigating a viewpoint.</p> <p>20 So, once again, taking into account the claim</p> <p>21 construction definitions, this is met by the directional</p> <p>22 pad on the Wii Remote just as it was met by the</p> <p>23 directional pad on the GameCube controller. So, we can</p> <p>24 check that one off.</p> <p>25 Okay. The next piece is (reading) the</p>	<p style="text-align: right;">Page 447</p> <p>1 concluded about claim 19 and the Wii Nunchuk controller</p> <p>2 with Remote?</p> <p>3 A. Well, this means that the Wii Nunchuk and Remote</p> <p>4 infringe claim 19.</p> <p>5 Q. All right, Dr. Howe. Can you summarize for us the</p> <p>6 conclusions that you have reached about infringement of</p> <p>7 the '700 patent by the Nintendo controllers as a result</p> <p>8 of the study that you've just explained to us?</p> <p>9 A. Sure. So, to summarize, the GameCube controller</p> <p>10 infringes claims 14, 16, 19, 22, and 23.</p> <p>11 The Wavebird wireless infringes claim 14.</p> <p>12 The Wii Classic and Wii Remote combination</p> <p>13 fringes claims 19, 22, and 23.</p> <p>14 And the Wii Nunchuk/remote combination</p> <p>15 infringes claim 19.</p> <p>16 Q. Okay. Professor Howe, we appreciate your coming</p> <p>17 today.</p> <p>18 MR. CAWLEY: And, your Honor, we pass the</p> <p>19 witness.</p> <p>20 THE COURT: All right. Counsel?</p> <p>21 MR. PRESTA: Your Honor, if I could approach</p> <p>22 and hand out some binders.</p> <p>23 THE COURT: You may.</p> <p>24 MR. GUNTHER: Your Honor, could I help?</p> <p>25 THE COURT: You may.</p>

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<p style="text-align: right;">Page 456</p> <p>1 four different products that are alleged here. 2 A. I believe that's correct. 3 Q. Okay. Now, I notice that the GameCube product, 4 which is on the far right, here (indicating), is 5 identified as infringing all of the claims -- 14, 16, 6 19, 22, and 23 -- right? 7 A. Yes, that's right. 8 Q. Now, you understand, of course, that -- and you 9 heard the testimony that Mr. Armstrong had that GameCube 10 product in front of him when he wrote those claims, 11 right? 12 A. I believe I caught that in the testimony, yes. 13 Q. In fact, Mr. Armstrong admitted that he was using 14 that product as a guide to draft those claims, right? 15 A. Again, I don't recall hearing that specific piece 16 of the testimony. 17 Q. Well, you do understand that Mr. Armstrong had the 18 Nintendo GameCube product in his possession when he was 19 drafting the claims, right? 20 A. Yes. 21 Q. Okay. So, it's not a surprise, then, that, in 22 fact, you're testifying that all of these claims are met 23 by the GameCube controller, because they were drafted 24 for the -- specifically to read on the GameCube 25 controller, right?</p>	<p style="text-align: right;">Page 458</p> <p>1 BY MR. PRESTA: 2 Q. Okay. Well, again, the GameCube was the product 3 that Mr. Armstrong had in his possession at the time he 4 wrote those claims; and it's -- the GameCube is the only 5 product that infringes all of the claims. You'll agree 6 with me on that, right? 7 A. Yes. 8 Q. Okay. Now, I'd like to help -- understand a little 9 bit better what you believe Mr. Armstrong invented. 10 And, in fact, I'd like to ask you if you recognize that 11 controller. 12 A. Yes, I do. 13 Q. What is it? 14 A. That's the Nintendo 64 controller. 15 Q. Okay. You understand that that's not an accused 16 product in this case, right? 17 A. Yes, I do. 18 Q. Okay. Do you have an opinion on whether that 19 controller would infringe claim 19? 20 A. Well, I haven't done a detailed analysis; so, I 21 can't say for certain. 22 Q. Okay. Well, you just testified -- 23 THE COURT: Hold on a minute, counsel. 24 Since this lawyer is a little further over, I 25 think if you'll -- yes. If you'll slide that microphone</p>
<p style="text-align: right;">Page 457</p> <p>1 A. Again, I haven't heard Mr. Armstrong testify in 2 that regard; so, I'm sorry, I can't help you with that. 3 Q. Okay. 4 MR. PRESTA: I'm going to go to the next 5 slide. 6 BY MR. PRESTA: 7 Q. Now, this is a timeline that has been shown several 8 times by Nintendo in this case. And, in fact, the 9 claims that are written in this case that are being 10 alleged were drafted July 15th of 2002. Were you aware 11 of that? 12 A. Yes. 13 Q. Okay. And are you aware that Nintendo's GameCube 14 product came out in November of 2001? 15 A. I'm happy to take your word for that. 16 Q. Okay. Now, in view of the fact that Mr. Armstrong 17 had Nintendo's products in his hands when he was writing 18 this aspect of his patent, we didn't really need a 19 Harvard professor to come in and read the claims onto 20 those products and attempt to show that there is 21 infringement. Would you agree with me? 22 MR. CAWLEY: Your Honor, I object to that. 23 That's an argumentative question. 24 THE COURT: Sustained. 25 *</p>	<p style="text-align: right;">Page 459</p> <p>1 over. 2 THE WITNESS: Great. 3 THE COURT: The acoustics in here are not 4 real good over where I'm sitting, and sometimes they're 5 not real good over there. So, it's important that you 6 speak up. 7 THE WITNESS: I understand. I will do. 8 Thank you, sir. 9 MR. PRESTA: Thank you, your Honor. 10 BY MR. PRESTA: 11 Q. Now, Professor Howe, do you recall at your 12 deposition where I showed you the N64 and you did a 13 detailed review of it? 14 A. Vaguely, yes. 15 Q. Okay. And you have been testifying that, for 16 example, claim 19 -- an important aspect of claim 19 17 that you mentioned was that it has two joysticks and a 18 cross-switch, right? 19 A. That's right. 20 Q. Now, this particular controller does not have two 21 joysticks and a cross-switch, does it? 22 A. No. It apparently does not. 23 Q. Okay. So, in view -- then based on that, would you 24 agree with me that the N64 does not infringe claim 19? 25 A. It does not appear to.</p>

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<p style="text-align: right;">Page 576</p> <p>1 there. There is an element that can move on two axes, 2 perpendicular axes. 3 Q. Okay. That's Thing Number 1. 4 A. The second is it's -- the element structured to 5 activate two bi-directional proportional sensors. 6 Q. Okay. That's -- I don't want to -- now, I don't 7 want to confuse semantics. That's Thing Number 2, 8 although Thing Number 2 does include two sensors within 9 it, right? 10 A. That's right, yes. 11 Q. Okay. What's Part Number 3? 12 A. The third one is what the output signals do. They, 13 at least in part, control objects and navigate 14 viewpoints. 15 Q. Okay. Now, how is it that you told us yesterday 16 that this third element with the three pieces that you 17 just described is in the GameCube controller? 18 A. Well, that language in this case describes the 19 thumbstick with its two rotary potentiometers. 20 Q. Okay. And is that -- 21 MR. CAWLEY: If we can see that picture 22 again. 23 A. Here we go. 24 BY MR. CAWLEY: 25 Q. This is what you just showed us here.</p>	<p style="text-align: right;">Page 578</p> <p>1 A. That's right. Well, the point is that it -- let me 2 use an analogy because that's a good way to do it. 3 For instance, if we had a patent claim, not 4 this one but another patent claim, that said something 5 about a piece of sporting equipment that you swing and 6 somebody showed you a baseball bat and said, "Does that 7 match what's in the patent?" And you'd say, "Yeah, it's 8 a piece of sporting equipment and you swing a baseball 9 bat." So, yeah, you would check that off. 10 Now, there's nothing in the claim about 11 baseball bats; and, in fact, we know it's more general 12 than that. So, if somebody shows you a tennis racket or 13 a golf club, those are pieces of sporting equipment that 14 you swing, as well. So, the patent -- and this is often 15 a good idea when you write a patent is you want to 16 describe things in a general way so that they cover a 17 number of different things; and that's just what's 18 happening here. 19 We have a description about the way you put 20 sensors together, about the way people can interact with 21 them. A thumbstick is one way to do it; an 22 accelerometer is another way to do it. What matters is 23 that the language matches the product, not that there is 24 a specific mention of that product's configuration in 25 the patent.</p>
<p style="text-align: right;">Page 577</p> <p>1 A. Okay. So, should we step through those three 2 parts? 3 Q. Well, I don't know if we -- yeah, if you can do it 4 quickly. 5 A. I'll do it fast. So, the cap there and the metal 6 shaft under it as well can be the first part about the 7 element movable on two axes. So, it goes up and down, 8 goes left/right. 9 The second one is it has to activate two 10 bi-directional proportional sensors. And down there at 11 the bottom we see the two potentiometers. Those are 12 bi-directional. They go right, and they go left. They 13 go up, and they go down. And they're proportional. 14 They're like a dimmer switch. They give you all the 15 values in between, not just on and off. 16 And then, finally, we know that they can be 17 used to control objects and change viewpoints in a video 18 game. Again, it's clear to somebody who works in this 19 area that that can be done; and, furthermore, we've seen 20 video games that do it. So, it's clear that this 21 satisfies all the parts there. 22 Q. Okay. Now, just straighten out one last bit of 23 questioning here. You say that it satisfies it. But 24 the word "thumbstick" isn't in here anywhere. How can 25 that be?</p>	<p style="text-align: right;">Page 579</p> <p>1 Q. So, are you saying that if a thumbstick is like a 2 baseball bat in your example, the accelerometer is like 3 a golf club? 4 A. That's right. 5 Q. Let's see how that fits into what was your analysis 6 of the same claim 19 but this time for the Wii Nunchuk 7 with Remote. And, once again, in connection with that 8 controller, Nintendo's lawyers didn't ask you any 9 questions about almost all of the things that you said 10 were present from the patent in their Nunchuk/Remote 11 controller, right? 12 A. I believe that's right, yep. 13 Q. So, let's talk about the one they did talk about, 14 the same one you just discussed, right? 15 A. That's right. 16 Q. Okay. 17 MR. CAWLEY: So, let's see the picture again 18 of the accelerometer in the device. Actually, the 19 photograph of what is inside the Remote, please. 20 BY MR. CAWLEY: 21 Q. Tell us again what this is. 22 A. Okay. This is the accelerometer, this computer 23 chip accelerometer we've been talking so much about. 24 And inside it -- 25 Q. Okay.</p>

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<p style="text-align: right;">Page 580</p> <p>1 MR. CAWLEY: Now let's go to the next 2 picture. 3 BY MR. CAWLEY: 4 Q. Can you tell us, then, what actually is inside that 5 chip? 6 A. Yeah. So, what's inside is a mass called a "proof 7 mass." That's standard terminology by accelerometers. 8 And it's attached by little springs to the frame, and 9 that frame is basically the black case you saw that's 10 soldered down to the circuit board. And inside, as part 11 of this computer chip, they've built little tiny 12 springs -- and I mean tiny -- that suspend that mass. 13 So, as the Wii Remote is moved around in the hand, those 14 springs compress and extend as the mass lags behind; and 15 then there are the sensors that measure how much that 16 spring is stretched or compressed. Now -- 17 Q. So, let me interrupt you with a question. Take us 18 through now what you've just explained about the sensors 19 in the accelerometer and the three parts that you told 20 us are in this third element piece. 21 A. You bet. So, the -- we said there are three parts 22 here that have to be present. If they aren't present, 23 we don't have infringement. And the first one is this 24 element movable on two perpendicular axes. In this case 25 it's the mass. It moves side to side, and it moves up</p>	<p style="text-align: right;">Page 582</p> <p>1 opinion that the Wii Remote and Nunchuk infringes claim 2 19 of the '700 patent? 3 A. Yes. It does infringe. 4 Q. Now let me ask you about a few other things quickly 5 that you were asked about in your cross-examination. 6 Can you hold up the Wii Remote again? 7 A. (Complying.) 8 Q. Are there a lot of features to that Remote that you 9 can readily point out without even having to take it 10 together [sic]? 11 A. Sure. Well, we know about the cross pad up here, 12 various buttons. There are some lights down here on the 13 bottom that come on. We've heard about the camera on 14 the front that looks at the light bar on the TV or the 15 computer screen. So, there are a lot of different 16 features here. 17 Q. Did those additional features that you haven't 18 testified about in connection with your opinion about 19 why there is infringement -- do they have anything to do 20 with whether there is infringement or not? 21 A. No. What we have to -- 22 Q. I'm thinking about the camera in particular because 23 you were asked a bunch of features [sic] about that. 24 So, let me ask you specifically about the camera. 25 A. Right.</p>
<p style="text-align: right;">Page 581</p> <p>1 and down. So, those are two perpendicular axes. 2 The second part is that it has to activate 3 two bi-directional proportional sensors. Well, we see 4 that the sensors are configured to measure the spring 5 compression in each direction. And, furthermore, each 6 one of those sensors, those capacitive sensors, works 7 both ways. So, the one for the vertical direction 8 measures motion up and down -- it's bi-directional -- 9 and it measures the total motion. So, if you move a 10 little bit, it gives you a small signal. If it moves a 11 lot, you get a big signal. So, it's bi-directional, 12 it's proportional, and there are two of them. 13 Then our last element there is that it's 14 useful for controlling objects and navigating a 15 viewpoint. And, again, it's obvious if you work in this 16 area that they can be used that way; and, furthermore, I 17 believe you saw a demonstration of the Wii in which that 18 was true. We saw somebody waving this around and 19 producing the changing viewpoints and changing motion on 20 the screen of the computer game. 21 Q. Okay. Is it your conclusion, then, that even based 22 on all of the things you've seen about being able, as a 23 matter of semantics, to refer to the whole controller as 24 a sensor or the chip as a sensor or the pieces inside 25 the chip that make it work as sensors -- is it your</p>	<p style="text-align: right;">Page 583</p> <p>1 Q. Does the camera have anything to do with 2 infringement? 3 A. No. As we've seen, we've checked that the features 4 that are listed in the patent are present in the device. 5 There can be extra features. That doesn't concern the 6 patent, and it doesn't concern infringement. 7 So, before I used the analogy, the idea of 8 checking for infringement, like getting a box of 9 something from Sears. So, suppose you order some tools 10 from Sears. The box comes. You get out the list of 11 your order. You check is my power drill in there? 12 Check. Is the wrench I ordered in there? Check. Is 13 the pliers I ordered in there? Check. So, your order 14 is complete. But then you look in there and they've 15 thrown in a free screwdriver and that's a bonus. It 16 turns out if you ordered more than \$50 worth of tools 17 this week or something like that, they throw in the 18 bonus. Well, the bonus is great. What matters is that 19 they gave you what you ordered. 20 And it's the same here. What matters is that 21 all the elements described in the claim are present in 22 the device. There can be extra features, but that 23 doesn't get you out of infringing the patent. And the 24 camera is one of those. The camera doesn't have 25 anything to do with the elements we just went over. You</p>

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<p style="text-align: right;">Page 640</p> <p>1 Q. Did you have a booth at that show?</p> <p>2 A. Yeah, we had a booth. There was --</p> <p>3 Q. Is that you?</p> <p>4 A. Yeah. That's it. That's me with hair. But, yeah,</p> <p>5 that's the booth we had at one of the E3 shows.</p> <p>6 Q. Okay. So, how did you meet Brad Armstrong at that</p> <p>7 show?</p> <p>8 A. I was working at a booth like I am here in this</p> <p>9 picture, and Brad Armstrong came around and -- and he</p> <p>10 had -- I had never met him before that point and he came</p> <p>11 around and we struck up a conversation and he had a</p> <p>12 little paper that said something about 6 DOF and he had</p> <p>13 some pictures of controllers. I don't remember exactly</p> <p>14 what they were but we struck up a conversation at that</p> <p>15 time and we were interested to, you know, talk again</p> <p>16 after the show.</p> <p>17 Q. Now, remind us. I know we've heard it, but remind</p> <p>18 us what "DOF" stands for.</p> <p>19 A. "DOF" stands for "degree of freedom."</p> <p>20 Q. So, were you interested in talking to Mr. Armstrong</p> <p>21 further?</p> <p>22 A. Yeah. We actually started corresponding, and we</p> <p>23 met a couple of times.</p> <p>24 Q. And did you become interested -- when you still had</p> <p>25 Mad Catz, before you sold the company and you're still</p>	<p style="text-align: right;">Page 642</p> <p>1 5 percent.</p> <p>2 Q. What does that mean, "a running royalty rate"?</p> <p>3 A. For every controller that we make or would have</p> <p>4 made under this contract, we would have paid Brad</p> <p>5 Armstrong 5 percent of the wholesale price, I believe.</p> <p>6 Q. And is there a certain type of product for which</p> <p>7 instead of paying 5 percent you would have paid</p> <p>8 4 percent?</p> <p>9 A. Yeah. I think initially it was 5 percent across</p> <p>10 the board and after it got to, it looks like, \$300,000</p> <p>11 in -- it would change where some of the products would</p> <p>12 be 5 percent royalty rate and some of them would be</p> <p>13 4 percent royalty rate.</p> <p>14 Q. And for what patent was this agreement to apply?</p> <p>15 A. This covered -- I just will recognize it by the</p> <p>16 last three digits of the patent, but it covered the '828</p> <p>17 patent and the '891 patent.</p> <p>18 Q. Are those patents that are similar to the '700</p> <p>19 patent that's involved in this lawsuit?</p> <p>20 A. Yes. In fact, these patents, I believe, are</p> <p>21 parents to the '700 patent.</p> <p>22 Q. Why did you agree to pay a royalty rate to</p> <p>23 Mr. Armstrong of between 4 and 5 percent?</p> <p>24 A. That was the industry standard as far as I knew.</p> <p>25 5 percent was pretty much the industry standard --</p>
<p style="text-align: right;">Page 641</p> <p>1 making and selling controllers, did you become</p> <p>2 interested in getting a license for Mr. Armstrong's</p> <p>3 controller technology including the 6-degree-of-freedom</p> <p>4 controller?</p> <p>5 A. Yes, very interested. I really believed in his</p> <p>6 products, thought they were great. He had patents on</p> <p>7 them, and we decided to enter into an agreement.</p> <p>8 Q. This is an agreement between Mad Catz and</p> <p>9 Mr. Armstrong?</p> <p>10 A. Yes. Yeah. I didn't know -- I mean, I'd just met</p> <p>11 Brad and thought his stuff was great; and we entered</p> <p>12 into a contract.</p> <p>13 Q. Take a look at the binder in front of you, or on</p> <p>14 the screen; and I'm going to show you Plaintiff's</p> <p>15 Exhibit 43 and ask you to tell us what it is.</p> <p>16 A. Okay. This is a license agreement between 6-DOF</p> <p>17 Trust -- that's a trust that Brad owned at the time --</p> <p>18 and myself, Kelly Tyler, a businessman.</p> <p>19 Q. What are the main terms of this agreement that you</p> <p>20 entered into with Mr. Armstrong to license his</p> <p>21 technology?</p> <p>22 A. There's some payments. There's a payment of</p> <p>23 \$75,000; and then there's two additional payments of</p> <p>24 \$25,000 each. So, that would be a total of \$125,000.</p> <p>25 Plus, there is a running royalty rate of</p>	<p style="text-align: right;">Page 643</p> <p>1 MR. GUNTHER: Objection, your Honor. Move to</p> <p>2 strike. Expert testimony.</p> <p>3 THE WITNESS: Do I keep talking or --</p> <p>4 THE COURT: Hold on, no.</p> <p>5 THE WITNESS: Okay.</p> <p>6 THE COURT: I'll sustain as to that. You can</p> <p>7 obviously go into what was actually paid but not as to</p> <p>8 the other unless there is a better foundation laid.</p> <p>9 MR. GUNTHER: Your Honor, can I --</p> <p>10 THE COURT: And I think we've already</p> <p>11 discussed this particular issue.</p> <p>12 MR. GUNTHER: Your Honor, can I just request</p> <p>13 that the jury know what's going on with respect to this?</p> <p>14 THE COURT: Well, ladies and gentlemen,</p> <p>15 you're going to hear various damage testimony about a</p> <p>16 reasonable royalty from various experts. Persons who</p> <p>17 have not been properly disclosed as experts earlier on,</p> <p>18 according to the rules, can't state opinions as to what</p> <p>19 the reasonable amounts are in general. They can talk</p> <p>20 about what they, themselves, paid; but the rules</p> <p>21 require -- otherwise, we would have experts come in with</p> <p>22 all kinds of things and we would never get over a trial.</p> <p>23 Both sides are required to provide expert reports early</p> <p>24 on under the rules and Scheduling Order that I set, and</p> <p>25 then that's what they are limited to. It's not like on</p>

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<p style="text-align: right;">Page 676</p> <p>1 A. Well, some of them went on a long time. We had one 2 negotiation session where it went on a couple of days. 3 Q. How long total from your first contact with them 4 until you made a deal? 5 A. Whew, that was probably about four years. 6 Q. Let me show you Plaintiff's Exhibit 54. I think 7 we've already seen it before, but tell us again. What 8 is this document? 9 A. Let me turn to it real quick. This is a Patent 10 License Agreement between Sony and Anascape. 11 Q. This is the deal you entered into with Sony; is 12 that right? 13 A. Yes, it is. 14 Q. What were the terms of the deal that you finally 15 agreed to with Sony? 16 A. With Sony, there are a few components to it. They 17 would pay us \$10 million. They would give us a 18 cross-license of some of their patents, and they would 19 give us additional technology. And on our side, we 20 would give them a nonexclusive license to our whole 21 patent portfolio; and there was one patent that we had 22 that we licensed to them exclusively. 23 Q. And was that the '606 patent? 24 A. Yes. 25 Q. Okay. So, let's make sure that we understand what</p>	<p style="text-align: right;">Page 678</p> <p>1 Q. So, the '606 was another continuation from that 2 same 1996 application; is that right? 3 A. That's correct. 4 Q. And it involved controller technology? 5 A. Yes. 6 Q. Why did you agree to do this deal with Sony for \$10 7 million? 8 A. Well, at the time I thought it was low. I didn't 9 think it represented a fair royalty. But I'd put in a 10 lot of money, and I wanted to get my money out. Brad 11 didn't have any money, and I wanted to get some for him. 12 I mean, he was -- I mean, one of his dreams was to give 13 his mom a car of her choice; and, you know, if he got 14 some money, he was going to be able to do that. 15 Q. Did he do that? 16 A. Yeah, he did. It just seemed right to be able to 17 sign up, you know, a big company and get some money off 18 the table. 19 Q. Did you think that signing a license like this to 20 Sony might have some effect on your ability to negotiate 21 license agreements with other companies? 22 A. Yeah. When you sign up, you know, the biggest 23 company in the industry, or one of the biggest companies 24 in the industry, it sends a message that, yes, it is 25 something that others should do, also.</p>
<p style="text-align: right;">Page 677</p> <p>1 you just said because there were several pieces to it. 2 Sony gave Anascape \$10 million, right? 3 A. Yes. Uh-huh. 4 Q. That's fairly easy. And for that \$10 million, the 5 deal was structured so that Anascape gave Sony the 6 exclusive rights to the '606 patent; is that right? 7 A. Yes. 8 Q. And then Sony also gave Anascape the right to use 9 certain Sony patents, correct? 10 A. Yes. 11 Q. And then Anascape gave Sony the right to use all of 12 Anascape's patents, correct? 13 A. That's correct. 14 Q. Including pending patent applications, correct? 15 A. Yes, that's right. 16 Q. And one of those pending applications was the 17 application that was soon to become the '700 patent, 18 correct? 19 A. That's correct. 20 Q. On that patent that you agreed to give to Sony 21 exclusive rights to, the '606, what was the technology 22 involved in that patent? 23 A. That was a child of the '525 patent, similar to the 24 '700 patent. It involved technology with game 25 controllers.</p>	<p style="text-align: right;">Page 679</p> <p>1 Q. And is that another reason why you were willing to 2 take less from Sony than what you thought was really a 3 reasonable royalty? 4 A. Yeah. I considered it a sweetheart deal because 5 they were one of the first ones to sign up. 6 Q. Is Sony using Anascape's technology? 7 A. Yes. 8 Q. Now, if Nintendo had come to you in 2005 when you 9 did the Sony deal or after you did the Sony deal, would 10 you accept \$10,000 from Nintendo for a license to the 11 '700 patent? 12 MR. GUNTHER: Objection, your Honor. 13 A. \$10,000? 14 MR. GUNTHER: Objection, your Honor. Calls 15 for speculation. 16 THE COURT: Sustained. 17 MR. CAWLEY: I don't guess it would make any 18 difference if I correct myself and say "\$10 million." 19 THE COURT: The objection is still sustained. 20 MR. CAWLEY: That's what I thought, judge. 21 BY MR. CAWLEY: 22 Q. Well, let me turn, then, to Nintendo. Did you have 23 some communications with Nintendo in an effort to get 24 them to negotiate with you to get a license for using 25 Mr. Armstrong's patents and invention?</p>

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<p>Page 728</p> <p>1 which would be, obviously, the amount of royalty that 2 would be owed. 3 Q. Well, I'll use your terminology of "buckets." So, 4 we'll go to the first bucket, which is "Licensing 5 Characteristics," on Slide 10. 6 A. Right. 7 Q. How did you consider these factors relating to 8 licenses? 9 A. Well, what I did is I considered various 10 documentation in this case. I conducted several 11 interviews of some of the people we talked about. And I 12 looked and did research; and I found additional 13 information on royalty rates for controller-related 14 technology in the marketplace, which would shed a lot of 15 light to me as part of my analysis on what an 16 appropriate royalty rate would be in this case. 17 Q. And you reviewed some actual license agreements? 18 A. Yes. 19 Q. Okay. 20 MR. PARKER: If we can go to 11. 21 A. Okay. 22 BY MR. PARKER: 23 Q. Are these some you reviewed? 24 A. Yes. In fact, the first one, the 6-DOF Trust, 25 slash, Mr. Tyler, that was one that was shown to</p> <p>Page 729</p> <p>1 Mr. Tyler during his examination, which he executed 2 shortly after he met Mr. Armstrong; and they signed up a 3 license agreement with royalty rates of 4 to 5 percent, 4 in that range. 5 Q. Does this chart support your opinion of a minimum 6 5 percent royalty rate in this case? 7 A. It does, but it's only part of the support for my 8 opinion. But it clearly does support my view of a 9 royalty rate of 5 percent. But there's a lot more, in 10 my view, that supports the 5 percent, as well. 11 Q. Okay. 12 A. Do you want me to explain the others? 13 Q. Well, let's go to Slide 13. 14 A. All right. 15 Q. This is one. 16 A. This is the 6 DOF license agreement that was shown 17 to Mr. Tyler and that he testified to. And this was 18 between Mr. Tyler when he was at Mad Catz and with 19 Mr. Armstrong -- or his trust that he set up for running 20 royalty rates, as you can see, of 5 percent and 21 4 percent for controller products. 22 Q. Are you familiar with a company by the name of 23 "Immersion"? 24 A. Yes. 25 Q. Have you heard of the phrase "Immersion standard</p>	<p>Page 730</p> <p>1 royalty rate"? 2 A. Yes, I have. 3 Q. And what is that? 4 A. Well, first of all, Immersion is a company that, as 5 I did my research investigation, I kept coming across 6 over and over again. They are a leader in controller 7 technology for the gaming industry. They design a lot 8 of controller products. And they have a lot of patents 9 out there, and they have widely licensed those patents. 10 And that's how I came across Immersion. 11 And because Immersion has been so active in 12 licensing their patents, they view that a royalty for 13 their controller technology -- to command a 5 percent 14 royalty rate. 15 MR. PARKER: Can we go to 14, please? 16 BY MR. PARKER: 17 Q. What is this, Mr. Bratic? 18 A. Now, this is a quote from Mr. Viegas, Vic Viegas, 19 who is the president and CEO of the Immersion 20 Corporation. And his statement to the public was that: 21 Our typical license is approximately 5 percent of the 22 wholesale selling price. 23 And I've seen other documents in this case 24 that support that statement made by Mr. Viegas. 25 MR. PARKER: And if we can now go to 15,</p> <p>Page 731</p> <p>1 please. 2 A. Okay. 3 BY MR. PARKER: 4 Q. As I understand it, one of the things you examined 5 in this case was a data compilation by a gentleman by 6 the name of Mr. Wagner that was prepared in another 7 matter. 8 A. Correct. 9 Q. Is that correct? 10 And the compilation dealt with a number of 11 licenses, correct? 12 A. Yes. 13 Q. Okay. What's the significance of your statement 14 regarding the Wagner report? 15 A. Well, in the Wagner report he went through and he 16 analyzed and looked at a number of Immersion license 17 agreements; and these 17 agreements were agreements that 18 were in his report that were Immersion's licenses. So, 19 Immersion had 17 licenses for joystick or controller 20 technology that were all at a minimum royalty rate of 21 5 percent. 22 Q. Now, the data in this report, is it the type data 23 that's reasonably and typically relied upon by experts 24 in your field? 25 A. Yes.</p>
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<p style="text-align: right;">Page 732</p> <p>1 Q. Even though you didn't conduct the study?</p> <p>2 A. That's correct.</p> <p>3 Q. You mentioned -- do you have the information</p> <p>4 regarding the companies that executed these agreements?</p> <p>5 A. Yes.</p> <p>6 Q. Can you tell the jury about that?</p> <p>7 A. Well, some of the companies that licensed this</p> <p>8 technology included, you know, some of Nintendo's</p> <p>9 competitors, such as Sony.</p> <p>10 Q. Okay. You have a chart relative to Sony; is that</p> <p>11 correct?</p> <p>12 A. Yes.</p> <p>13 Q. Okay. What's the significance of that chart?</p> <p>14 A. Well, from the review of the Wagner report that</p> <p>15 had -- Mr. Wagner had access to a variety of Sony</p> <p>16 license agreements. And if you look at the Wagner</p> <p>17 report and the Sony licenses for controllers, if you</p> <p>18 look in the far right-hand column, this talks about the</p> <p>19 device. And if you look at the royalty rates, the</p> <p>20 royalty rate that Sony was getting for its controller</p> <p>21 technology when it licensed its controller technology to</p> <p>22 other companies, it was generally getting 5 percent.</p> <p>23 Q. Now, I assume, Mr. Bratic, that you haven't</p> <p>24 personally read or examined the contents of all these</p> <p>25 various licensing agreements that have been -- that are</p>	<p style="text-align: right;">Page 734</p> <p>1 these reports, this data, influence your conclusions</p> <p>2 regarding reasonable royalty rate in this case?</p> <p>3 A. No, because I came across a lot of different</p> <p>4 independent sources of this information which still</p> <p>5 corroborated that 5 percent royalty. For example, I had</p> <p>6 the statements by Mr. Viegas that their standard royalty</p> <p>7 rate is 5 percent. I went and found two Immersion</p> <p>8 licenses on my own in my research that showed royalty</p> <p>9 rates of 3 to 7 percent. The 5 percent is a midpoint,</p> <p>10 and I discussed them in my report. I have the Sony</p> <p>11 licenses where Sony licenses its controller technologies</p> <p>12 for 5 percent, and I have a whole series of summaries of</p> <p>13 Immersion licenses that Mr. Wagner analyzed where the</p> <p>14 average royalty rate was 5 percent. So, these are all</p> <p>15 consistent. They all corroborate each other.</p> <p>16 Q. Before we move to the next bucket --</p> <p>17 A. Yes.</p> <p>18 Q. -- what did you learn from the licenses you</p> <p>19 examined?</p> <p>20 A. Well, what I learned was a typical licensing</p> <p>21 arrangement for controller technology were running</p> <p>22 royalty rates, meaning you pay as you go. As you sell</p> <p>23 product, you pay royalties, rents. And that typical</p> <p>24 royalty rate was in the 5 percent range.</p> <p>25 Q. All right. The next bucket is "Commercial</p>
<p style="text-align: right;">Page 733</p> <p>1 on this chart and have been involved in the Wagner</p> <p>2 report; is that correct?</p> <p>3 A. That's correct.</p> <p>4 Q. Is it your experience that individuals in your</p> <p>5 business or individuals in the licensing business can</p> <p>6 rely on reports like this?</p> <p>7 A. Oh, sure. I've been doing licensing work for 30</p> <p>8 years, and you don't always have perfect information and</p> <p>9 lots of times companies may report a license, but they</p> <p>10 don't publish the license agreement. And I do research</p> <p>11 all the time for clients -- and I did research in this</p> <p>12 case -- helping me to identify data points as far as</p> <p>13 what royalty rates are in different industries, and in</p> <p>14 this case there's no difference.</p> <p>15 And an example would be that a client I'm now</p> <p>16 representing in Australia, I, in fact, started doing</p> <p>17 research with them; and it has to do with food</p> <p>18 processing technology. And I have subscriptions to</p> <p>19 databases that I pay \$200 and I get a report on known</p> <p>20 information on food processing licenses and then I have</p> <p>21 to do a little drilling and a little analysis, but the</p> <p>22 point is that information is available. And I've</p> <p>23 certainly used it for the last 30 years in guiding</p> <p>24 clients in their negotiations.</p> <p>25 Q. Does the fact that you didn't personally prepare</p>	<p style="text-align: right;">Page 735</p> <p>1 Success."</p> <p>2 A. Yes.</p> <p>3 Q. Did you consider the Georgia-Pacific factors</p> <p>4 relating to commercial success?</p> <p>5 A. I did.</p> <p>6 Q. Okay. Could you tell the jury about it?</p> <p>7 A. Well, sure. The fact is that -- can you go back to</p> <p>8 chart -- let me find it. I think it's Chart 6.</p> <p>9 Q. I can't, but perhaps Mr. Martin can.</p> <p>10 A. So, these are the dollar sales. As you can see,</p> <p>11 they've sold a billion -- Nintendo has sold in the</p> <p>12 United States -- well, these are U.S., Canada, and Latin</p> <p>13 America sales because they're all sold from the United</p> <p>14 States. That's why they're all here. But they've sold</p> <p>15 over a billion dollars of product in less than two years</p> <p>16 when they introduced the Wii system.</p> <p>17 The important thing is here, behind that</p> <p>18 billion dollars in sales, is -- I'm going to give you a</p> <p>19 number -- about 43 million individual units. In other</p> <p>20 words, if I had the Nunchuk, you know, here in my hand</p> <p>21 and I had the Wii Remote and I had the Wii Classic and</p> <p>22 the Wavebird and Wavebird wireless -- I mean, the</p> <p>23 GameCube and the Wavebird wireless, there's about 45</p> <p>24 million individual articles, parts that were sold that</p> <p>25 are these accused products supporting a billion dollars</p>

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<p style="text-align: right;">Page 752</p> <p>1 rely on him, and I interviewed other people in 2 connection with my work in this case; so, that relates 3 to opinions. 4 G-P Factor 15 is what I've called the 5 "catchall." It takes all the other 14 factors and rolls 6 them up into this hypothetical negotiation that would 7 have occurred between Anascape on one hand and Nintendo 8 on the other hand back in June, 2005, when the '700 9 patent issued. 10 And, so, you had mentioned earlier there's 11 various rules that govern the negotiation; and I've got 12 a slide that goes through some of the factors and some 13 of the positions of -- the bargaining position on how 14 the parties would have approached negotiation. 15 Q. Well, why don't we move to Slide 31? 16 A. Okay. 17 Q. And what does Slide 31 address? 18 A. Well, this is dealing with Georgia-Pacific Factor 19 15, which is setting up that hypothetical negotiation 20 for a hypothetical license. So, coming to this 21 hypothetical negotiation, Anascape would have come into 22 that negotiation with a certain perspective and Nintendo 23 would have come with a certain perspective. So, I've 24 kind of tried to summarize what the key points of those 25 parties were --</p>	<p style="text-align: right;">Page 754</p> <p>1 sorry -- that Nintendo would be at a competitive 2 disadvantage, without a license, to Sony because they 3 would have known at this hypothetical negotiation that 4 Sony, the biggest company in this industry, had a 5 license to the '700 patent. 6 And then Anascape would have insisted on or 7 asked for a royalty rate, in my view, of at least 8 5 percent. 9 Q. What about Nintendo? 10 A. Well, from Nintendo's perspective, Nintendo would 11 have walked into that negotiation also recognizing that 12 the '700 patent was assumed to be valid and had been 13 infringed. They would be seeking to get a competitive 14 advantage, and they would be aware of the importance of 15 controller features in offering that competitive 16 advantage. And I'm meaning specifically the six axes of 17 control and the rumble. 18 And this would have been very important to 19 Nintendo because they were about to roll out a new video 20 system. The Wii system hadn't been introduced yet. 21 That was to be introduced in November, 2006. But they 22 were working on it then because they knew they needed to 23 replace the GameCube system back in 2005. 24 And they would have known that the gaming 25 industry is a highly profitable industry. Nintendo, of</p>
<p style="text-align: right;">Page 753</p> <p>1 Q. Are those perspectives -- are those positions 2 typically referred to as their "bargaining position"? 3 A. Yeah, their bargaining position or their bargaining 4 point. It's no different than what happens in the real 5 world of licensing where two parties come together to 6 negotiate and do some horse trading and everybody's got 7 their view of what they think is important and they 8 bring it to the negotiation. 9 Q. Do you want to go through Anascape's bargaining 10 position? 11 A. Sure. Well, at the hypothetical negotiation in 12 this case, Anascape would have known that the '700 13 patent was assumed to be valid and infringed. They also 14 would have been aware -- Anascape's personnel, that 15 being Mr. Armstrong and Mr. Tyler, based on their work 16 in the industry and the research I've done that would be 17 attributed to everybody, they would have been aware of 18 royalty rates in the industry for controller technology. 19 Both Mr. Armstrong and Mr. Tyler had 20 negotiated licenses before for controller technology; 21 so, they were experienced negotiators. They would have 22 been aware of the industry demand for innovative 23 features, including the rumble and six axes of control. 24 And they would have been aware that the '700 patent 25 offered important technology that Microsoft -- I'm</p>	<p style="text-align: right;">Page 755</p> <p>1 course, was a large manufacture market of video game 2 systems with a large distribution network and a strong 3 customer base. 4 They would have been aware of the importance 5 of, and dedicated to, technological innovation and 6 controller design. And what I mean by that is Nintendo 7 certainly would have made known the fact that Nintendo 8 also contributed technology to the controller. So, I 9 don't want to suggest that Anascape is the only one 10 going to the table with technology. 11 And then they would have recognized that 12 Nintendo didn't have any alternatives. They didn't have 13 any design-around. They couldn't go back and put the 14 genie in the bottle and reconfigure the Wii and bring it 15 back out as something else. 16 Q. Were you able to reach any conclusion -- 17 MR. GERMER: Your Honor, I would have to 18 object to that last comment and ask that it be stricken 19 from the record, the comment about the design-around. 20 That's not in his report. It's never been discussed. 21 It was not supposed to be presented to the jury. 22 THE COURT: All right. Well, ladies and 23 gentlemen, whether there are or are not any 24 design-around needs to be determined from the 25 technological experts. Of course, this witness is a</p>

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<p style="text-align: right;">Page 808</p> <p>1 5 percent or 4 percent or who knows. 2 A. Well, I can't tell you. I don't have the 3 information. 4 Q. All right. You talked about, I believe, a couple 5 of Immersion licenses. Are you with me on that? 6 A. Yes. 7 Q. And you talked about Immersion being pretty 8 significant because their president said that "We always 9 get 5 percent," et cetera, et cetera. 10 A. No, that's not why I said they were significant. I 11 mean, every time you turn around in the controller 12 industry, you run into Immersion. They're a major 13 player in the controller industry for games. 14 Q. Did you -- 15 A. That's why I say they're significant. 16 Q. I'm sorry. 17 In terms of all of those licenses for 18 Immersion, did you actually study any of them to see -- 19 A. No. 20 Q. -- what they provided? 21 A. No. I didn't have the specific license agreements. 22 Q. Well, don't we have a couple on the 1996? Isn't 23 that what you have in one of your exhibits? 24 A. I'm sorry? 25 Q. Don't you have the license agreement on the 1996</p>	<p style="text-align: right;">Page 810</p> <p>1 Q. Okay. 2 A. Particularly in the Sony -- Immersion/Logitech 3 licenses and any of the other Immersion licenses, the 4 information I had, none of those other agreements ever 5 specified that the Immersion patents would be deemed to 6 be valid and infringed, which would have a big impact on 7 whether or not you would add more value to the patent as 8 opposed to other things thrown in a license. 9 Q. Did you study that agreement to see whether or not 10 the value that the licensee was getting included 11 significant value from the technology and the know-how, 12 et cetera? 13 A. Well, as I told you, that agreement is not 14 available for anybody for inspection; and there is no 15 indication as to anything other than there was a bundle 16 of IP, including patent rights, licensed. 17 Q. And actually those agreements included a long 18 bundle of patents, didn't it -- 15, 20, or so? 19 A. A patent portfolio, that's right. 20 Q. Yes, sir. Now, generally speaking, if you're going 21 to get 5 percent for 20 licenses -- 20 patents, wouldn't 22 you think that if there was only one patent, it might be 23 a little less? 24 A. No. IBM is a classic example. IBM at 1 percent -- 25 they'll charge you 3 percent royalty for one patent. If</p>
<p style="text-align: right;">Page 809</p> <p>1 license? It was in your chart. It says: 2 Immersion/Logitech Agreement, 1996. 3 A. No, I don't have the license agreement. I actually 4 did some research and independently found the 5 Immersion/Logitech license agreements and I found that 6 there were two agreements and the range of royalties 7 were from 3 to 7 percent. But I didn't actually have 8 the agreements because they weren't published. 9 Q. But the royalty ranged from 5 percent down to 3 10 percent? 11 A. And up to 7 percent. There was a second agreement 12 which was from 5 to 7 percent. 13 Q. And you also learned from your investigation, did 14 you not, that that was not a simple royalty agreement? 15 A. I don't know what you mean by "simple" -- 16 Q. It was not a simple license agreement. It had 17 technology. It had trademarks -- 18 A. That's right. 19 Q. It had know-how. 20 A. That's right. 21 Q. So, all things being equal, if they had to -- if 22 they only got 5 percent for the license and all of their 23 technology and trademarks and know-how, presumably if 24 you only had one license, it would be something less. 25 A. No, not necessarily.</p>	<p style="text-align: right;">Page 811</p> <p>1 you want to pay 5 percent, you'll get all 22,000 patents 2 in their patent portfolio. 3 Q. Yes, sir. That's an example, but in general -- 4 A. Well, they're the biggest patent company in the 5 world. They have more patents than anyone else. 6 Q. In general, wouldn't it be a true proposition that 7 the more licenses you had to offer, the more money you 8 could demand? 9 A. No. That's not the case at all in the real world 10 or in a hypothetical negotiation. 11 Q. Okay. You told the jury a little bit about some 12 Immersion licenses and I think some Sony licenses. 13 A. Yes. 14 Q. And you got those out of what I believe was called 15 the "Wagner report"? 16 A. Correct. 17 Q. Just to be clear, the Wagner report was a report 18 done by an expert -- I presume someone like yourself 19 that's an expert in economics or accounting -- that 20 testified in another case? 21 A. Correct. 22 Q. And in connection with that testimony, he did kind 23 of what you've done. He worked up a report, and he 24 included some information in that report. 25 A. A lot of information.</p>

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<p style="text-align: right;">Page 816</p> <p>1 available to me or anybody else. 2 Q. Okay. 3 A. Had they been made available to me, I certainly 4 would have looked at them. In the absence of having 5 them, to use your house analogy, it's like looking at a 6 new subdivision where pretty much all the houses are the 7 same and when somebody tells you, "Well, that house sold 8 for a hundred thousand in that subdivision," I can say, 9 "Well, great." I know from other data I've seen that 10 there are five or six or seven or eight other houses in 11 this subdivision that all sold for a hundred thousand 12 and they're very similar; so, I could rely on that. 13 Q. I think I heard you say that it would be better if 14 you had the licenses themselves. 15 A. Sure. It would be great if you could have them, 16 but -- 17 Q. Okay. 18 A. -- that wasn't available. 19 Q. Thank you. 20 In terms of the issue as to whether or not 21 the jury should consider a lump-sum award as opposed to 22 a running royalty, do you agree that there's a fair 23 amount of indication that both Anascape and Nintendo 24 have -- would prefer lump sum? 25 A. No. I don't agree with that at all.</p>	<p style="text-align: right;">Page 818</p> <p>1 depositions. 2 A. I didn't take it; so, don't look at me. 3 Q. I didn't, either. 4 But I'm really more concerned about 5 Mr. Armstrong's testimony than I am about what the 6 lawyer said. 7 A. Well, I understand. But he's answering the 8 question; so, it would be nice to see the question. 9 Q. Well, let's see. It looks like at the top the 10 question -- or his answer was: And I think that -- 11 The question was: Why was it a lump sum? 12 A. Right. 13 Q. And then the questioner brilliantly said: Yes. 14 A. Right. 15 Q. And then Mr. Armstrong said: Because we felt that 16 that was something that Sony could do. You know, these 17 ongoing royalties, my understanding is a lot of large 18 corporations just don't like them because they can cause 19 continuing problems in the future. 20 A. Right. 21 Q. (Reading) A lump sum is just a done deal. 22 Everybody is happy, and it's just desirable from -- 23 especially from -- you know, I think it's desirable for 24 both parties in some ways but certainly for the larger 25 entity's standpoint.</p>
<p style="text-align: right;">Page 817</p> <p>1 Q. Okay. 2 A. There's no body of evidence that I've seen in this 3 case to support the notion you just made. 4 MR. GERMER: Could we look at Armstrong's 5 deposition at page 610? 6 A. I don't have it. 7 MR. GERMER: I think it's going to come up on 8 the screen. 9 A. Okay. 10 BY MR. GERMER: 11 Q. Can you tell me which day this was from? 12 A. I cannot -- oh, there it is, March 17th. 13 Q. And this is the deposition where they were talking 14 about the Sony -- 15 A. I don't know. 16 Q. -- the Sony deal. Okay? 17 A. Okay. If you say so. 18 MR. GERMER: Now, if you go down about 19 halfway down -- I tell you what, let's just blow it -- 20 from 6 down to 14. See if we can do that. 21 BY MR. GERMER: 22 Q. Mr. Armstrong said -- 23 A. Could I see what the question was? 24 Q. Sure. The question was "yes." 25 This is one of those really great</p>	<p style="text-align: right;">Page 819</p> <p>1 A. Right. 2 Q. So, that does tell us that Mr. Armstrong at least 3 was happy with the Sony deal and was happy with the 4 lump-sum deal. 5 A. In the context of that negotiation. And actually 6 we don't have anything different than that here because 7 we know what -- the total units that have been sold from 8 infringement through the time of trial. So, in essence, 9 it would be a 50.3-million-dollar payment, lump-sum 10 payment, for past infringement. 11 Q. Would you look at page 610, please? 12 A. I'm sorry. 610 of... 13 Q. Yes, sir. 14 A. Oh, same -- I'm sorry. 15 Q. I think that's about where we were. 16 MR. GERMER: The last question and answer, 17 let's blow that up. 18 BY MR. GERMER: 19 Q. Question: That's one advantage to a licensor is 20 that if something changes in the technology, you've 21 already been paid, right? 22 And Mr. Armstrong said: Yes. I'm not 23 complaining. You know, I'm happy. It was a good deal 24 for me. 25 A. That's what he said.</p>

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<p>Page 824</p> <p>1 A. No. That's not necessarily true. Nintendo has 2 climbed up in their sales of console systems. They're 3 now Number 2. They've eclipsed Microsoft. 4 Q. They -- at the time of the hypothetical 5 negotiation, they would have known that at that time 6 Sony was much bigger. 7 A. Yes. They would have known that Sony and Microsoft 8 were bigger. 9 Q. Okay. 10 A. And that they would have been at a competitive 11 disadvantage by not taking the patent license. 12 Q. And Microsoft is going to want to stay even with 13 Sony if they can? 14 THE COURT: Now, wait a minute. Who? 15 MR. GERMER: I'm sorry. We got off on 16 Microsoft. 17 BY MR. GERMER: 18 Q. Nintendo is going to want to stay even with Sony if 19 they can? 20 A. Well, what do you mean "even"? 21 Q. They want to get the same deal if they can. 22 A. Well, if they can. But the terms and circumstances 23 would have been different in 2005 for Nintendo than they 24 were when Sony voluntarily negotiated a license in 2004. 25 Very different circumstances, different playing field.</p> <p>Page 825</p> <p>1 Q. And according to the numbers we're looking at, a 2 very different result, in your opinion, from no cash to 3 50 million. 4 A. Not a different result at all. I mean, the fact is 5 they would negotiate -- the Sony deal for the '606 6 patent was a very different situation, and the '700 7 patent hadn't issued when the Sony contract was 8 negotiated; whereas, as of June, 2005, we have an issued 9 patent. It's deemed to be valid and infringed for 10 purposes of the hypothetical negotiation. 11 Q. Correct. And you, of course, are making that 12 assumption. 13 A. What's that? 14 Q. That it's valid and infringed. 15 A. Yes. I'm required to make that assumption. 16 Q. And if the jury decides that the patent is not 17 infringed, then, of course, there would be no damages. 18 A. Oh, that's correct. 19 Q. And if the jury decides that the patent was not 20 valid, there would be no damages. 21 A. That's true. 22 Q. Thanks. Thank you very much. 23 MR. PARKER: Just a couple, your Honor. 24 25</p>	<p>Page 826</p> <p>1 REDIRECT EXAMINATION OF WALT BRATIC 2 BY MR. PARKER: 3 Q. All these questions about lump sum versus 4 reasonable royalty, this jury is going to have an 5 opportunity in a couple of days to make a lump-sum 6 award, aren't they? 7 A. Yes. 8 Q. But that lump-sum award will have to represent a 9 reasonable royalty on sales that have occurred to date, 10 correct? 11 A. That is true. 12 Q. And has your opinion about what that amount should 13 be changed in any way after having listened to 14 cross-examination? 15 A. No, it hasn't. My opinion is the royalty rate 16 should be at least 5 percent; and, therefore, the 17 minimum amount of damages are 50.3 million. 18 Q. Thank you, sir. 19 MR. PARKER: I have no further questions. 20 MR. GERMER: No further questions, your 21 Honor. 22 THE COURT: Just for the record and so there 23 is no confusion later on lump sum, would you tell the 24 jury what is the difference between a lump sum and a 25 running royalty? I don't want confusion later on.</p> <p>Page 827</p> <p>1 THE WITNESS: Okay. A lump sum would be -- 2 using the Sony/Anascape example, where Sony, for the 3 '606 patent, got an exclusive right to practice the '606 4 patent, put it in its products, and they wrote a check 5 for \$10 million. That means they were no longer 6 accountable, "they" Sony, to Anascape for any sales. 7 They could sell zero, or they could sell billions of 8 dollars of product. They wouldn't have to pay them a 9 penny more. They get one check. 10 A running royalty is -- if you negotiate 11 up-front a running royalty, then a running royalty is if 12 you sell product, you pay royalties. If you don't sell 13 product, you don't pay royalties. So, one of the 14 advantages of a running royalty is if you're not sure 15 how much product you're going to sell or if you're going 16 to sell it at all, you agree to a running royalty 17 because then you don't have to pay anything if you don't 18 sell anything. There's no downside. 19 THE COURT: Any further questions from 20 plaintiff? 21 MR. PARKER: No, sir. 22 THE COURT: From defendant? 23 MR. GERMER: No, your Honor. 24 THE COURT: All right. You may step down, 25 sir.</p>
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<p style="text-align: right;">Page 841</p> <p>1 games; is that correct?</p> <p>2 A. Yes.</p> <p>3 Q. Now, you said when you were developing the GameCube</p> <p>4 controller, that it was important to keep the total cost</p> <p>5 below 900 yen; is that correct?</p> <p>6 A. Yes.</p> <p>7 Q. So, if the motor for the rumble feature was an</p> <p>8 expensive component, you could have saved a lot of money</p> <p>9 by not putting in the motor; is that correct?</p> <p>10 A. Yes, I think so.</p> <p>11 Q. Be despite the cost, Nintendo decided to include</p> <p>12 the motor for the rumble feature; is that correct?</p> <p>13 A. Yes.</p> <p>14 Q. So, just so I understand you, by increasing the</p> <p>15 number or types of features on a controller, it affects</p> <p>16 the variety of games that software developers can</p> <p>17 create; is that true?</p> <p>18 A. That potential exists.</p> <p>19 Q. If the C stick were mounted on the main circuit</p> <p>20 board, it would be taller than it is now; and it would</p> <p>21 be more difficult to use than it is right now; is that</p> <p>22 correct?</p> <p>23 A. That's correct.</p> <p>24 Q. And if you could turn to Figure 2 of Exhibit 292,</p> <p>25 which is the '700 patent.</p>	<p style="text-align: right;">Page 843</p> <p>1 Q. Now, there are three rollers depicted in this</p> <p>2 figure; is that correct?</p> <p>3 A. Yes.</p> <p>4 Q. So, from looking at the structure of this figure,</p> <p>5 if a user were to rotate the ball, then the rollers</p> <p>6 could tell that the ball was moving; is that correct?</p> <p>7 A. I believe so.</p> <p>8 Q. So, the rollers are used to detect rotational</p> <p>9 movement of the ball; is that correct?</p> <p>10 A. Yes.</p> <p>11 Q. Now, the ball is surrounded by a cup-like structure</p> <p>12 that has been labeled "16"; is that correct?</p> <p>13 A. Yes.</p> <p>14 Q. Can you tell from looking at the figure whether the</p> <p>15 structure of the game controller allows it to sense the</p> <p>16 linear movement of the cup?</p> <p>17 A. Yes.</p> <p>18 Q. So, for instance, if you were to push down on the</p> <p>19 cup toward the ball, then the structure labeled "22"</p> <p>20 would move, as well; is that correct?</p> <p>21 A. Yes.</p> <p>22 Q. And in the same way, if you were to move the cup</p> <p>23 back and forth, the controller is structured to sense</p> <p>24 that linear movement; is that correct?</p> <p>25 A. Yes.</p>
<p style="text-align: right;">Page 842</p> <p>1 A. Yes.</p> <p>2 Q. Have you reviewed Figure 2 of Exhibit 292 before?</p> <p>3 A. As I said earlier, I hadn't done that prior to</p> <p>4 looking at them -- after I had been contacted by the IP</p> <p>5 department.</p> <p>6 Q. You have reviewed Figure 2 of this patent within</p> <p>7 the past year, correct?</p> <p>8 A. Yes.</p> <p>9 Q. Figure 2 of the '700 patent depicts a cross section</p> <p>10 of a game controller that is described by this patent;</p> <p>11 is that correct?</p> <p>12 A. Yes.</p> <p>13 Q. Now, in the middle of the figure, there is a circle</p> <p>14 that has been labeled with the number "12"; is that</p> <p>15 correct?</p> <p>16 A. Yes.</p> <p>17 Q. What is that?</p> <p>18 A. It's a ball.</p> <p>19 Q. Okay.</p> <p>20 A. Sorry. It's a sphere.</p> <p>21 Q. Do you see a component in the figure that is</p> <p>22 labeled "124"?</p> <p>23 A. Yes.</p> <p>24 Q. What is that?</p> <p>25 A. I think it's a roller.</p>	<p style="text-align: right;">Page 844</p> <p>1 Q. So, this is a 6-degree-of-freedom controller, isn't</p> <p>2 it?</p> <p>3 A. Yes.</p> <p>4 Q. So, there are three rollers associated with the</p> <p>5 ball and each of those rollers would provide a separate</p> <p>6 output to some sort of computer unit associated with the</p> <p>7 controller; is that true?</p> <p>8 A. Yes.</p> <p>9 Q. So, conversely, the CPU receives three signals</p> <p>10 associated with the trackball that represent three axes</p> <p>11 of rotational movement; is that correct?</p> <p>12 A. Yes.</p> <p>13 Q. So, similarly, because the cup is movable on three</p> <p>14 linear axes, the cup would send three separate signals</p> <p>15 to the CPU, each one representing movement on a</p> <p>16 different linear axis; is that correct?</p> <p>17 A. Yes.</p> <p>18 Q. If you removed the cup from the controller depicted</p> <p>19 in Figure 2, you would not be able to sense movement on</p> <p>20 three linear axes; is that correct?</p> <p>21 A. No, you wouldn't.</p> <p>22 Q. But if you still had the trackball, you would still</p> <p>23 have a 3-degree-of-freedom controller because you could</p> <p>24 still sense rotational movement on three axes; is that</p> <p>25 correct?</p>

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<p style="text-align: right;">Page 845</p> <p>1 A. Yes.</p> <p>2 Q. So, if you remove the cup, instead of six separate</p> <p>3 outputs being sent to the CPU, there would only be three</p> <p>4 outputs sent to the CPU, one representing each axis of</p> <p>5 rotational movement of the trackball; is that correct?</p> <p>6 A. Yes.</p> <p>7 Q. Now, conversely, if you did not remove the cup but</p> <p>8 you did remove the trackball, then you would still have</p> <p>9 a 3-degree-of-freedom controller except it would be able</p> <p>10 to measure linear movement on three axes and not</p> <p>11 rotational movement on three axes; is that correct?</p> <p>12 A. Yes.</p> <p>13 Q. If instead of having a trackball within a cup, if</p> <p>14 you had a controller with a trackball on one side and a</p> <p>15 movable cup on the other, you would still have a</p> <p>16 6-degree-of-freedom controller because you would have</p> <p>17 three axes of rotation through the trackball and three</p> <p>18 axes of linear movement through the cup; is that</p> <p>19 correct?</p> <p>20 A. Are you saying that on one hand you would have a</p> <p>21 cup but no ball and on the other hand you would have a</p> <p>22 ball with no cup?</p> <p>23 Q. Yes.</p> <p>24 A. Yes.</p> <p>25 Q. If you had this controller with a cup on one side</p>	<p style="text-align: right;">Page 847</p> <p>1 Q. And a game developer could use those six signals in</p> <p>2 a similar way where a user could use the left trackball</p> <p>3 to move one character on a screen and the user could use</p> <p>4 the right trackball to move another character on the</p> <p>5 screen; is that correct?</p> <p>6 A. Yes.</p> <p>7 Q. So, if you would like to design a controller that</p> <p>8 produces six analog signals to transmit to a CPU, one</p> <p>9 way of doing it is like a controller structured here</p> <p>10 with a trackball found in a cup; is that correct?</p> <p>11 A. I think so.</p> <p>12 Q. Another way to create a controller that produces</p> <p>13 six analog signals to send to a CPU would be just to</p> <p>14 have two trackballs that each sent three analog signals</p> <p>15 to the same CPU; is that correct?</p> <p>16 A. Yes.</p> <p>17 Q. Mr. Koshiishi, my name is Bob Gunther. I'm one of</p> <p>18 Nintendo's attorneys, and I'm going to ask you some</p> <p>19 questions at this point in the deposition.</p> <p>20 I want to go first to the questioning that</p> <p>21 Mr. Garza had of you at the very end of the deposition</p> <p>22 before the break. And he showed you Figure 2 of the</p> <p>23 '700 patent, correct?</p> <p>24 A. Yes.</p> <p>25 Q. And then he asked you whether or not,</p>
<p style="text-align: right;">Page 846</p> <p>1 and the trackball on the other, the CPU would still</p> <p>2 receive three analog signals representing three axes of</p> <p>3 rotational movement and three analog signals</p> <p>4 representing three axes of linear movement; is that</p> <p>5 correct?</p> <p>6 A. Yes.</p> <p>7 Q. And software developers can use the signal sent to</p> <p>8 the CPU to program games on a television screen to do</p> <p>9 different things; is that correct?</p> <p>10 A. Yes.</p> <p>11 Q. So, for instance, if you had a trackball and a cup,</p> <p>12 a software developer could use the three analog signals</p> <p>13 from the trackball to move one character on a screen and</p> <p>14 use the three analog signals from the cup to move</p> <p>15 another character on the screen; is that correct?</p> <p>16 A. Yes.</p> <p>17 Q. So, instead of a controller with a cup and a</p> <p>18 trackball, if you had a controller with two trackballs,</p> <p>19 you would not have any signals representing linear</p> <p>20 movement; is that correct?</p> <p>21 A. I believe that's so.</p> <p>22 Q. But if you had two trackballs that were structured</p> <p>23 like the one in Figure 2, you could still send six</p> <p>24 analog signals to the CPU; is that correct?</p> <p>25 A. Yes.</p>	<p style="text-align: right;">Page 848</p> <p>1 hypothetically, a controller could be developed that had</p> <p>2 a cup on one side and a trackball on the other side,</p> <p>3 correct?</p> <p>4 A. Yes.</p> <p>5 Q. Is there any disclosure in the '700 patent that you</p> <p>6 are aware of of a controller that has a separate</p> <p>7 trackball on one side and a separate cup on the other</p> <p>8 side?</p> <p>9 A. No.</p> <p>10 Q. And he also gave you a hypothetical of a controller</p> <p>11 that would have two separate three-axis trackballs. Do</p> <p>12 you recall that questioning?</p> <p>13 A. Yes.</p> <p>14 Q. Is -- anywhere in the '700 patent, is there a</p> <p>15 disclosure of a controller that has two separate</p> <p>16 three-axis trackballs?</p> <p>17 A. No.</p> <p>18 Q. Now, the three hypotheticals that Mr. Garza asked</p> <p>19 you, the one with the -- the controller with the</p> <p>20 separate trackball and separate cup, that's the first</p> <p>21 one; the second one with three -- sorry -- with two</p> <p>22 three-axis trackballs, that's the second one; and the</p> <p>23 third one is the one with three two-axis trackballs.</p> <p>24 My question is: Are you aware of any video</p> <p>25 game controllers that have ever been sold that have any</p>

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<p style="text-align: right;">Page 869</p> <p>1 who wanted to purchase it separately?</p> <p>2 A. Yes. The way it worked is there was a game called</p> <p>3 "Star Fox" that involved manipulating a flying machine</p> <p>4 and the decision was made at Nintendo that vibration was</p> <p>5 necessary for that game and, so, we sold, as an option,</p> <p>6 a separate vibration pack.</p> <p>7 Q. And have you heard that referred to as the "Rumble</p> <p>8 Pak"?</p> <p>9 A. Well, I'm sorry to say I don't know if it was ever</p> <p>10 referred to as "Rumble Pak." In Japan we referred to it</p> <p>11 as the "vibration pack."</p> <p>12 Q. Okay. Well, I'll be glad to call it "vibration</p> <p>13 pack."</p> <p>14 Isn't it true, Mr. Ikeda, that Nintendo</p> <p>15 offered the vibration pack for sale in the United States</p> <p>16 for the first time in 1997?</p> <p>17 A. I'm sorry to say I just don't know at what point it</p> <p>18 went on sale in the United States. The reason for that</p> <p>19 is at the time of the development of the Nintendo 64, I</p> <p>20 was still working on development of cartridges for the</p> <p>21 Super NES; and, so, I really didn't have that much</p> <p>22 information about the N64.</p> <p>23 Q. About how many years after the introduction of the</p> <p>24 N64 was the Rumble Pak made available for sale?</p> <p>25 A. I'm very sorry. I just don't recall that, either.</p>	<p style="text-align: right;">Page 871</p> <p>1 about that?</p> <p>2 Q. Sure. The Wii Remote has a pad that I've heard</p> <p>3 referred to -- and I'll give you several alternatives --</p> <p>4 as a "D-pad" or a "direction pad" or a "cross pad" or a</p> <p>5 "plus key," all the same pad but it's been called all</p> <p>6 those different names.</p> <p>7 A. Yes. Now I understand what you're asking about.</p> <p>8 Thank you very much. Yes, it has one.</p> <p>9 Q. Yes. And it has buttons, too, doesn't it?</p> <p>10 A. Yes, it has buttons.</p> <p>11 Q. How many?</p> <p>12 A. Let's see. Buttons. Well, if you include the</p> <p>13 trigger button that's on the backside of the Wii Remote,</p> <p>14 then that would be -- if you're counting buttons used in</p> <p>15 games, that would make seven buttons.</p> <p>16 Then there's a button for turning on or off</p> <p>17 the power supply. And then on the backside, there is</p> <p>18 another button for synchronizing wireless communication.</p> <p>19 So, there is a total of nine buttons on it.</p> <p>20 Q. Thank you. And the Wii Remote also uses an</p> <p>21 accelerometer, correct?</p> <p>22 A. Yes. It includes an accelerometer -- an</p> <p>23 acceleration sensor.</p> <p>24 Q. The accelerometer detects movement of the Remote,</p> <p>25 correct?</p>
<p style="text-align: right;">Page 870</p> <p>1 Q. Okay. Although rumble, or vibration, was not a</p> <p>2 standard feature of the N64 controller, it is standard</p> <p>3 in the GameCube controller, correct?</p> <p>4 A. That is correct.</p> <p>5 Q. And the Wii Remote has a vibration function, too,</p> <p>6 doesn't it?</p> <p>7 A. That is correct.</p> <p>8 Q. And it comes standard with the Wii Remote, correct?</p> <p>9 A. Yes. It's included as a standard function.</p> <p>10 Q. How does the vibration feature work in the Wii</p> <p>11 Remote?</p> <p>12 A. It really depends on the game. But, for example,</p> <p>13 with Wii Sports, there's one called "tennis." And when</p> <p>14 you swing the racket and the racket hits the ball, then</p> <p>15 it would do such things as vibrate. It's a way of</p> <p>16 illustrating the game.</p> <p>17 Q. Okay. What mechanism or machine in the Wii Remote</p> <p>18 causes it to vibrate?</p> <p>19 A. There is a coin-type motor inside the controller,</p> <p>20 and there is a weight on that motor. And by means of</p> <p>21 rotating that weight, that's what gives rise to the</p> <p>22 vibration.</p> <p>23 Q. Yes, sir. The Wii Remote has what's called a</p> <p>24 "D-pad," doesn't it, "D" as in "dog"?</p> <p>25 A. I'm sorry. Could you go into a little more detail</p>	<p style="text-align: right;">Page 872</p> <p>1 A. Yes. When you wave the Remote, for example, it</p> <p>2 will detect that you have waved it.</p> <p>3 Q. What is inside the accelerometer that let's it do</p> <p>4 that?</p> <p>5 A. An accelerometer is a sensor that measures</p> <p>6 acceleration. Inside there is a portion that moves. It</p> <p>7 has a weight on it. And then there is a portion that</p> <p>8 does not move. And, so, there is a sensor that</p> <p>9 indicates or that detects whether or not there has been</p> <p>10 motion on the part that moves. So, you have a moving</p> <p>11 portion and a nonmoving portion; and they work as a kind</p> <p>12 of pair or set.</p> <p>13 Q. And does that pair detect motion in one direction?</p> <p>14 A. The part that has the weight on it can detect</p> <p>15 movement up/down, right/left, and forward and back. So,</p> <p>16 it can detect motion in three directions.</p> <p>17 Q. Yes, sir. Thank you.</p> <p>18 The distance between the probes that you</p> <p>19 described change in response to acceleration, correct?</p> <p>20 A. Yes. That's right.</p> <p>21 THE COURT: Excuse me, counsel, for just a</p> <p>22 minute. If we start getting into long, technical</p> <p>23 explanations, could you please ask the witness to break</p> <p>24 his answers up into smaller parts? I think it will be</p> <p>25 easier for us all to follow if we break it down just a</p>

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<p style="text-align: right;">Page 873</p> <p>1 little bit. We've been going along fine; but if some of 2 these answers start getting fairly long, if he can break 3 it up, you can translate, and then he can continue on, I 4 think it would be easier. 5 THE INTERPRETER: I would be happy to do 6 that, your Honor. 7 THE COURT: If you would tell him that, 8 please. 9 THE WITNESS: I have understood. 10 MR. CAWLEY: Thank you. 11 BY MR. CAWLEY: 12 Q. The distance between the two probes in the 13 accelerometer causes a change in the capacitance of the 14 static electricity, correct? 15 A. That's correct. 16 Q. And is this capacitor a sensor? 17 A. I wouldn't think of each of the individual probes 18 as sensors; but I would think of the assembly, the 19 entire unit, as a sensor. 20 Q. But I'm asking you, Mr. Ikeda, about the probes and 21 actually the capacitors. Do you understand? 22 A. I do understand what you're asking, but I just 23 don't consider those parts to be sensors. 24 Q. What senses the change in the capacitance of the 25 static electricity caused by the relative movement of</p>	<p style="text-align: right;">Page 875</p> <p>1 Q. And isn't it true that yet a different set of 2 capacitors detect movement on the Z axis? 3 A. Well, all of this is being measured with just one 4 weight; whereas, the locations of the probes are 5 different. 6 Q. Okay. I'm not asking you about the weight or the 7 probes; I'm asking you, sir, about the capacitors. 8 A. In the same manner, there are capacitors that are 9 for X, Y, and Z. 10 Q. So, there are capacitors that sense movement in the 11 X axis, correct? 12 A. That's correct. 13 Q. And there are capacitors that sense movement in the 14 Y axis, correct? 15 A. That's correct. 16 Q. Thank you, sir. 17 A. And there are capacitors for the Z axis, as well. 18 Q. Thank you even more. I appreciate that. 19 You mentioned that the accelerometer has 20 three outputs, correct? 21 A. That's correct. 22 Q. Could these outputs be used by a game designer to 23 control objects on the screen? 24 A. It's possible to move objects. However, an 25 accelerometer detects acceleration; so, all it can do is</p>
<p style="text-align: right;">Page 874</p> <p>1 the probes? 2 A. There would be several probes that are detected. 3 But what you get as an answer -- that is to say, what 4 you get as output -- there are three outputs. 5 THE COURT: Excuse me. Are you saying there 6 were several "codes" or several "probes" that are 7 detected? 8 THE INTERPRETER: That was "probes," your 9 Honor. 10 THE COURT: I'm sorry? 11 THE INTERPRETER: "Probes." I'm sorry if I 12 wasn't clear. 13 THE COURT: Thank you. 14 BY MR. CAWLEY: 15 Q. Mr. Ikeda, isn't it true that one set of capacitors 16 in the accelerometer is used to detect acceleration on 17 the X axis? 18 A. The X axis can be measured, as well. But at the 19 same time, measurement can take place along the Y and Z 20 axes. 21 Q. Yes, sir. That's my next question. Isn't it true 22 that a different set of capacitors is used to detect 23 acceleration on the Y axis? 24 A. Yes, different capacitors and probes for the Y 25 axis.</p>	<p style="text-align: right;">Page 876</p> <p>1 detect either a fast or a slow movement over a given 2 distance. So, for that reason, if you want to -- for 3 example, like moving a cursor on a personal computer, 4 left and right and up and down, that would be a pretty 5 tough thing to do using the accelerometers in the Wii 6 Remote. In order to do that kind of cursor movement, 7 there is a function known as the "pointer" that is 8 included in the Wii Remote. 9 Q. Thank you. But I'm not really asking you about 10 cursor on a screen; so, let me rephrase my question. 11 You're familiar with the game Mario Galaxy, 12 correct? 13 A. Yes, I know about that. 14 Q. Is there a place in that game where the Wii Remote 15 can be used to make Mario jump onto a ball and to move 16 the ball with his feet? 17 A. Yes. Yes, it's as you said. 18 Q. So, the Wii Remote can be used to move Mario and 19 the ball, correct? 20 A. Yes. You can make Mario jump. 21 Q. And the Wii Remote, in addition to sensing movement 22 in a direction, can also detect tilt, correct? 23 A. Tilt, yes, off to the side. It can detect that, as 24 well. 25 Q. And that's because gravity is a kind of</p>

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<p style="text-align: right;">Page 877</p> <p>1 acceleration, correct?</p> <p>2 A. It's done using gravity and also the acceleration</p> <p>3 that the person himself actually applies.</p> <p>4 Q. Now, when the Wii Remote creates the three outputs</p> <p>5 from the accelerometer -- let me start over again.</p> <p>6 That's not a good question.</p> <p>7 When the accelerometer creates the three</p> <p>8 outputs, Nintendo doesn't tell game designers what it</p> <p>9 must do with those outputs, does it?</p> <p>10 A. No, no. We don't have any requirements.</p> <p>11 Q. So, the game designer may choose to use those three</p> <p>12 outputs in any way the designer wishes, correct?</p> <p>13 A. That's correct.</p> <p>14 Q. And those outputs could be used to control the</p> <p>15 movement of people or characters, correct?</p> <p>16 A. As I said before, an accelerometer measures</p> <p>17 acceleration. So, it's not like using a mouse and</p> <p>18 making a precise motion on the screen. But you can use</p> <p>19 it, say, if you want to use it -- it's not something</p> <p>20 that you can follow a precise movement with; but you can</p> <p>21 use it as an instruction to, say, deliver a punch or</p> <p>22 swing a racket or swing a bat.</p> <p>23 Q. Well, you've already testified, Mr. Ikeda, that in</p> <p>24 Mario Galaxy it can be used to move Mario, correct?</p> <p>25 A. Yes. As I said, if you're having Mario jump,</p>	<p style="text-align: right;">Page 879</p> <p>1 saying is go in a particular direction.</p> <p>2 Q. Thank you. And I'm not asking you anything about</p> <p>3 the precision of the character's movement. My question</p> <p>4 to you is very simple. Can a game designer choose to</p> <p>5 use the output of the accelerometer to move a character</p> <p>6 on the screen?</p> <p>7 A. Yes. You can do a simple motion, like a jump.</p> <p>8 Q. Could a game --</p> <p>9 A. You can also indicate to Mario, once he's on the</p> <p>10 ball, which way to go.</p> <p>11 Q. Thank you.</p> <p>12 Could the game designer choose to use the</p> <p>13 output of the accelerometer to move objects on the</p> <p>14 screen?</p> <p>15 A. Well, just the way you can move Mario, if you had a</p> <p>16 ball-like character, you could move that ball in the</p> <p>17 same way.</p> <p>18 Q. Could a game designer choose to use the output of</p> <p>19 the accelerometer to change the player's point of view</p> <p>20 on the screen?</p> <p>21 A. I think so.</p> <p>22 Q. Thank you, sir.</p> <p>23 Now, you've used a mouse before, haven't you?</p> <p>24 A. Yes, I have.</p> <p>25 Q. And you've used a trackball before?</p>
<p style="text-align: right;">Page 878</p> <p>1 you're applying acceleration in the direction in which</p> <p>2 you want Mario to jump.</p> <p>3 Q. So --</p> <p>4 A. But you cannot say to Mario, "Okay, I want you to</p> <p>5 jump exactly a distance that is three times your</p> <p>6 height."</p> <p>7 Q. Okay. I thank you for that. But my question was,</p> <p>8 just to make sure we completely understand, then: You</p> <p>9 agree it is possible for a game designer to use the</p> <p>10 output of the accelerometer to control a character?</p> <p>11 A. Well, I may not have a complete understanding of</p> <p>12 how you're using the word "control"; but you cannot use</p> <p>13 it in order to make the character move precisely in</p> <p>14 accordance with the will of the game player -- in</p> <p>15 accordance with his intentions.</p> <p>16 And the reason for that is an accelerometer</p> <p>17 can detect the direction in which acceleration takes</p> <p>18 place, but it cannot determine how much motion.</p> <p>19 Q. You remember in Mario Galaxy, Mr. Ikeda, that once</p> <p>20 Mario jumps on the ball, he can move the ball in</p> <p>21 different directions by the player using the Wii Remote</p> <p>22 accelerometer?</p> <p>23 A. Yes. That, you can do; and that's because the</p> <p>24 acceleration that is -- that arises when you slant</p> <p>25 something, it indicates a direction. So, what it's</p>	<p style="text-align: right;">Page 880</p> <p>1 A. Yes, I have used one.</p> <p>2 Q. When you move the trackball, the trackball senses</p> <p>3 rotational movement, correct?</p> <p>4 A. Yes. The portion that comes into contact with the</p> <p>5 trackball detects rotational movement.</p> <p>6 Q. However, the cursor or pointer on the screen moves</p> <p>7 linearly, or in a line, in response to the rotational</p> <p>8 movement of the trackball, correct?</p> <p>9 A. Yes. It moves linearly, but I think what it's</p> <p>10 doing is there is some kind of parameter that is used to</p> <p>11 transform or to convert the rotational movement into</p> <p>12 linear movement.</p> <p>13 Q. Yes, sir. So, what you've just said is that when</p> <p>14 you use a trackball with a computer, the rotational</p> <p>15 movement of the trackball is translated into linear</p> <p>16 movement on the computer screen, correct?</p> <p>17 A. That's right.</p> <p>18 Q. Thank you, Mr. Ikeda.</p> <p>19 MR. CAWLEY: I'll pass the witness, your</p> <p>20 Honor.</p> <p>21 THE COURT: Ladies and gentlemen, we're going</p> <p>22 to go ahead and take a break. I will ask you to be back</p> <p>23 at quarter past.</p> <p>24 (The jury exits the courtroom, 10:57 a.m.)</p> <p>25 THE COURT: We'll be in recess until quarter</p>

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<p style="text-align: right;">Page 881</p> <p>1 past. 2 (Recess, 10:57 a.m. to 11:20 a.m.) 3 (Open court, all parties present, jury 4 present.) 5 THE COURT: Counsel? 6 MR. GUNTHER: Thank you, your Honor. 7 CROSS-EXAMINATION OF AKIO IKEDA 8 BY MR. GUNTHER: 9 Q. Mr. Ikeda, I'd like to start out -- Anascape's 10 counsel asked you some questions about what you were 11 doing during the development of the Wii Remote, but I 12 want to ask you: What's your position right now at 13 Nintendo? 14 A. I am the group manager of the second development 15 group in Nintendo's integrated development department. 16 Q. Now, sir, do you speak any English? 17 A. I can more or less read and write and understand 18 what's said; but when it comes to speaking, I only can 19 say just a few words. 20 And because I want to be exact in what I say, 21 I'm wanting to be able to use my native language when I 22 testify. 23 Q. Thank you. 24 Now, I want to ask you a few questions about 25 your background. Where were you born?</p>	<p style="text-align: right;">Page 883</p> <p>1 hours by car. 2 Q. Now, back in January of this year, you had your 3 deposition taken in Japan, correct? 4 A. That's correct. 5 Q. And that was a deposition that was taken by the 6 Anascape lawyers in this case; is that right? 7 A. That's correct. 8 Q. Now, had you ever had your deposition taken before? 9 A. No, I never have. 10 Q. And this may have been covered, but just to make 11 sure: Have you ever testified in a trial like this 12 before? 13 A. No. This is my first time. 14 Q. Can you tell us your educational background? 15 A. I attended a Japanese university known as Aoyama, 16 A-O-Y-A-M-A, Gakuin, G-A-K-U-I-N; and I graduated from 17 the department of electrical and electronic engineering. 18 Q. What year did you graduate? 19 A. I graduated in March of 1993. 20 Q. And, sir, are you a degreed electrical engineer? 21 A. That's correct. 22 MR. GUNTHER: Your Honor, could I just ask 23 Mr. Taylor to move the mic a little bit closer to him 24 when he's answering? I'm just -- from standing back 25 here, it's a little bit faint.</p>
<p style="text-align: right;">Page 882</p> <p>1 A. I was born in Yamaguchi Prefecture in Japan. 2 Q. And, sir, how old are you? 3 A. I'm 39. 4 Q. And, sir, have you lived in Japan your whole life? 5 A. Yes. Ever since I was born, I've lived entirely in 6 Japan. 7 Q. Have you ever been to the United States before? 8 A. Yes. I've been in Los Angeles -- I've been to Los 9 Angeles once, and last year I went to Honolulu. 10 Q. Have you ever been to Texas before? 11 A. This is my first trip. 12 Q. So, what do you think of Texas? 13 A. I'm impressed by how green Texas is and how good 14 the food is. It seems like a very nice place. Also, 15 there is a Nintendo software called Metroid; and I had 16 heard that that had been jointly developed by Nintendo 17 and with a Texas company. So, in that sense, I had some 18 notion of Texas. 19 Q. Thank you. Now, did you come here from Japan to 20 testify in this case? 21 A. That's correct. 22 Q. How long did it take you to get here? 23 A. From Japan's Narita N-A-R-I-T-A, airport to Houston 24 airport, it took 12 hours by plane. Then to come from 25 the Houston airport to Lufkin, here, that took about 2</p>	<p style="text-align: right;">Page 884</p> <p>1 THE INTERPRETER: So, you would like to hear 2 my answers more loudly? 3 MR. GUNTHER: If possible, Mr. Taylor. 4 THE WITNESS: All right. 5 THE COURT: Let me just suggest that you just 6 move it back and forth between the two of you. It may 7 make it a little easier. 8 THE INTERPRETER: All right. 9 BY MR. GUNTHER: 10 Q. When did you join Nintendo, Mr. Ikeda? 11 A. I joined Nintendo in April of 1993. 12 Q. And was that right after you got out of college? 13 A. Yes. I joined the company the very next month 14 after I graduated. 15 Q. Thank you. 16 Your current position, you've testified, is 17 manager of the Development Number 2 group. Can you tell 18 us what that does and how many people you supervise 19 currently? 20 A. Well, first of all, the number in the group, 21 including myself, there are 21. As for the work that we 22 do, it involves the Wii console, the Remote control, the 23 Wii Fit. We are involved in the electronic design for 24 this and for peripherals, as well. 25 Q. Now, before you were manager of the Development</p>

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<p style="text-align: right;">Page 885</p> <p>1 Group Number 2, what was your responsibilities? What 2 did you do at Nintendo? 3 A. Until July of last year, I was group manager of 4 Development Group Number 5 that specializes in the 5 design of user interfaces. 6 Q. And, sir, while you were working in that position, 7 did you work on the development of the Wii Remote? 8 A. Yes. It was in Development Group Number 5 that I 9 did development work for the Remote control for the Wii, 10 the Wii Classic, and the Wii Nunchuk. 11 Q. What were your general responsibilities while you 12 were doing that design and development work for the Wii 13 controllers? 14 A. They were various functions. One would have been, 15 say, the accelerometer sensor, that portion; then the 16 wireless. That would be Bluetooth. All of these 17 various functions, there was someone actually working on 18 that, handling the work. I was managing that work and 19 ensuring its progress; but at the same time, there was 20 some actual development work that I handled myself in 21 addition to my management work. 22 Q. Now, sir, are you a named inventor on any patents 23 as a result of your work at Nintendo? 24 A. Yes, I am. 25 Q. And can you tell us approximately how many patents</p>	<p style="text-align: right;">Page 887</p> <p>1 A. It was around 1999. There was a planning meeting, 2 and the purpose of the planning meeting was to decide 3 whether or not we could do a combination of a Game Boy 4 cartridge with a certain kind or kinds of sensor to come 5 up with something that was particularly enjoyable. And 6 at that meeting someone proposed that an accelerometer 7 be combined with a Game Boy cartridge; and, so, I became 8 involved in the work of doing that combination. I was 9 chosen to be the main person to handle this design work. 10 Q. And, sir, the cartridge that you have in your hand, 11 is that meant to fit into the Game Boy system? 12 A. Yes. The way you use this cartridge, you push 13 it -- you insert it (demonstrating) into the Game Boy 14 Advance. 15 Q. And then can you describe for us -- we're not going 16 to actually show the game, but can you describe for us 17 how that game works and how the accelerometer 18 contributes to the play of the game? 19 A. Well, there's a character named "Kirby" who appears 20 in this game. He's round, a rather ball-like character. 21 And if you take the console of the Game Boy 22 Advance and you tilt it, then this round Kirby 23 character, he will roll in that direction like a ball. 24 I'll just show you (demonstrating). I'll 25 give you an example of just what sort of action that</p>
<p style="text-align: right;">Page 886</p> <p>1 you've been named as an inventor on based on your work 2 at Nintendo? 3 A. Including applications filed in the United States, 4 it would be approximately eight patents. 5 Q. Thank you. 6 Now, sir, were you involved -- what was the 7 first time that you were involved in the development of 8 a video game that involved an accelerometer? 9 A. The first time I was involved in a game that had 10 anything to do with an accelerometer was in developing a 11 Game Boy cartridge called "Tilt 'n Tumble," Kirby. 12 MR. GUNTHER: Your Honor, may I approach with 13 a demonstrative exhibit? 14 THE COURT: All right. You may approach. 15 MR. GUNTHER: Thank you, your Honor. 16 BY MR. GUNTHER: 17 Q. Mr. Ikeda, I've handed you two objects. Can you 18 tell us what they are? 19 A. This is a Game Boy Advance SP. 20 And what we have, this pink item here, this 21 is the Kirby Tilt 'n Tumble cartridge (indicating). And 22 it may be a little hard to make out; but here up in the 23 top, there is an accelerometer built in. 24 Q. When did you work on the development of that 25 cartridge?</p>	<p style="text-align: right;">Page 888</p> <p>1 would be. You operate it like this (demonstrating). 2 Q. Now, when you were operating the Game Boy with the 3 Kirby cartridge in it, were you pressing buttons to make 4 the Kirby character move around? 5 A. Well, if you -- you had to push a button, for 6 example, to start the game or something like that. But 7 for actually moving Kirby, you did that only by tilting 8 and turning. 9 Q. And, sir, can you tell us how the accelerometer 10 factored into what you would see on the screen in terms 11 of the movement of the ball-like Kirby character? 12 A. When the player tilts the Game Boy, as a result of 13 that tilting, an acceleration is generated. What the 14 accelerometer does is detect the direction in which the 15 tilt took place, and it sends a signal to the console of 16 the Game Boy Advance. By tilting the Game Boy Advance 17 console right, left, forward, and back, what you have in 18 here is an accelerometer that detects on two axes. 19 Q. Okay. Sir, where did -- the accelerometer that's 20 in the Kirby Tilt 'n Tumble cartridge, is that made by 21 Nintendo? 22 A. No. Nintendo doesn't manufacture it. We purchase 23 that part from a U.S. company called "Analog Devices." 24 Q. Now, sir, was the idea of putting the accelerometer 25 into the Kirby Tilt 'n Tumble cartridge -- was that an</p>

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<p style="text-align: right;">Page 889</p> <p>1 idea that came from Analog Devices? 2 A. No. The idea of putting an accelerometer into the 3 cartridge, that was a Nintendo idea. 4 Q. Had any company, to your knowledge, ever done 5 anything like that before, any video game company? 6 A. I certainly don't know anything that was out as a 7 product like that. 8 Q. Thank you. 9 Now, sir, I want to talk for a moment about 10 the Nintendo 64. You were asked some questions about 11 that system by Anascape's counsel. 12 A. All right. 13 Q. Now, sir, are you familiar with the Nintendo 64 14 system? 15 A. Yes. I have used the Nintendo product. 16 Q. What kind of graphics does the Nintendo 64 have? 17 A. These are characters that are displayed on the 18 television screen. What's distinctive about it is that 19 these are characters that appear to have depth. 20 Q. And when you say they appear to have depth, are 21 they 2-D characters or are they 3-D characters or 22 something else? 23 A. The general way of referring to them would be to 24 say that these are 3-D graphics. 25 Q. Now, sir, I'm holding this device up. Do you know</p>	<p style="text-align: right;">Page 891</p> <p>1 MR. GUNTHER: Thank you. 2 Mr. Taylor, do you want to turn on the 3 microphone? 4 THE INTERPRETER: I see. 5 MR. GUNTHER: I think there is a switch on 6 there. You might have to take it out. 7 BY MR. GUNTHER: 8 Q. Mr. Ikeda, can you actually start the game? And if 9 you could demonstrate and maybe talk a little bit, as 10 you're playing, about what you're doing. 11 THE COURT: Stop one minute. 12 MR. GUNTHER: Yes, sir. 13 THE COURT: I think you're going to need to 14 stand a little closer because he's going to need to talk 15 into the microphone, also. Or else you're going to have 16 to move off to the podium so he can talk into the 17 microphone. One way or the other, Mr. Ikeda and the 18 interpreter have to have access to a microphone. 19 MR. GUNTHER: Understood, your Honor. What I 20 will do is I'm going to give him this microphone; and to 21 the extent I have to ask a question, I will talk really 22 loud. 23 THE COURT: Or you can bend it back towards 24 yourself. 25 Why don't you bend it towards him now.</p>
<p style="text-align: right;">Page 890</p> <p>1 what this is? 2 A. Yes. What you have in your hand is a Nintendo 64 3 controller. 4 Q. And is that a 3-D graphics controller, Mr. Ikeda? 5 A. I think it is a controller for operating 6 three-dimensional characters. 7 Q. Thank you. 8 Now, sir, are you familiar with the game 9 Nintendo Super Mario 64? 10 A. Yes. I've played with it just a little. 11 Q. Okay. 12 MR. GUNTHER: With your Honor's permission, 13 we would like to ask Mr. Ikeda to make a short 14 demonstration of the Nintendo 64 3-D video game with the 15 Super Mario 64. 16 THE COURT: All right. 17 BY MR. GUNTHER: 18 Q. Mr. Ikeda, I'm going to ask you, if you can, to 19 step down towards me. We have a game set up, and we're 20 going to ask you to play just a little bit of Super 21 Mario 64 on the Nintendo 64 system. 22 A. May I step forward? 23 Q. Yes. 24 MR. GUNTHER: Is that okay, your Honor? 25 THE COURT: Yes.</p>	<p style="text-align: right;">Page 892</p> <p>1 MR. GUNTHER: Yes, sir. 2 A. I will explain using this microphone. I'd like to 3 start the game right away. 4 BY MR. GUNTHER: 5 Q. Are you controlling the game right now? 6 A. No. I'm not yet operating it. 7 Q. Tell us when you actually start to operate the 8 game. 9 A. Now I've started operating Mario. I'm using the 10 analog stick on this controller to go left and to go 11 right. There appears to be a castle up ahead; so, I'm 12 going in that direction. The way I'm doing that, I'm 13 moving forward by taking this analog stick and pressing 14 it forward. 15 Q. Now, let me ask you: Is this a 2-D game or a 3-D 16 game, this Mario 64? 17 A. I think it's a 3-D game. 18 Q. Why do you say that? 19 A. Well, for example, when I go up the stairs -- and 20 here I'm by the banister. By moving the camera angle, I 21 can look at it from different points of view. 22 Also, I can move in towards the depth of 23 what's on the screen; or I can move back out towards -- 24 out of the screen. 25 Q. When you change the camera angle, what features on</p>

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<p style="text-align: right;">Page 893</p> <p>1 the controller do you use to do that?</p> <p>2 A. I'll show you now (indicating). I use the yellow</p> <p>3 buttons here to change the angle, the camera angle, and</p> <p>4 to zoom in or zoom out.</p> <p>5 Here where you have this sort of 3-D effect,</p> <p>6 it's tricky to actually get on there; and, so, I'm going</p> <p>7 to change the angle to make it easier. Uh-oh. I</p> <p>8 failed.</p> <p>9 Q. Just show us just a little bit more of the game to</p> <p>10 get the idea of the 3-D nature of the game, please.</p> <p>11 A. Well, then I'll just continue playing the game</p> <p>12 here.</p> <p>13 Q. Okay, Mr. Ikeda. Thank you very much for that.</p> <p>14 I have one more question just on this game</p> <p>15 and this system, the Nintendo 64 system. In terms of</p> <p>16 time, was this system out before or after --</p> <p>17 MR. CAWLEY: Your Honor, this is precisely</p> <p>18 the matter that your Honor ruled on at the beginning of</p> <p>19 the trial in relation to the revision of certain</p> <p>20 demonstratives.</p> <p>21 THE COURT: Sustained.</p> <p>22 BY MR. GUNTHER:</p> <p>23 Q. Mr. Ikeda, why don't you retake the witness stand,</p> <p>24 if you could.</p> <p>25 MR. GUNTHER: And for the record, while the</p>	<p style="text-align: right;">Page 895</p> <p>1 Q. Did you use anything from Mr. Armstrong's '700</p> <p>2 patent while you were developing any of the Wii</p> <p>3 controllers?</p> <p>4 A. No. Not in any controller.</p> <p>5 Q. To your knowledge, did anyone on the team that was</p> <p>6 working with you in developing the Wii Remote, the Wii</p> <p>7 Nunchuk, and the Wii Classic Controllers use anything</p> <p>8 from Mr. Armstrong's '700 patent?</p> <p>9 A. No. I don't think that happened.</p> <p>10 Q. Now, sir, can you tell me how you got involved in</p> <p>11 developing the Wii controllers and specifically the Wii</p> <p>12 Remote?</p> <p>13 A. First of all, it was in May of 2003 that I moved to</p> <p>14 the department where I now find myself; that is to say,</p> <p>15 the integrated research department.</p> <p>16 Within that department, a user interface</p> <p>17 planning team was established; and I was chosen as a</p> <p>18 member of that team. Then a Wii user interface planning</p> <p>19 team was put together, and ideas were exchanged within</p> <p>20 that team. Within that team, I came up with a number of</p> <p>21 different ideas for controllers; and I was made the</p> <p>22 leader of that planning team. And later on, by</p> <p>23 combining pointer technology with accelerometers, I was</p> <p>24 able to achieve the kind of control that is used in the</p> <p>25 Wii Remote control.</p>
<p style="text-align: right;">Page 894</p> <p>1 interpreter is getting seated, the exhibits that we've</p> <p>2 been using, the Wii console -- sorry -- the Nintendo 64</p> <p>3 controller is Defendant's Exhibit 118. The Nintendo 64</p> <p>4 console is Defendant's Exhibit 120. And the Super Mario</p> <p>5 64 cartridge is Defendant's Exhibit 121.</p> <p>6 BY MR. GUNTHER:</p> <p>7 Q. If I could turn back to the Wii controllers,</p> <p>8 Mr. Ikeda.</p> <p>9 Now, sir, you understand that the reason</p> <p>10 we're here is that Anascape is accusing the Wii Remote,</p> <p>11 when used with either the Wii Nunchuk or the Wii</p> <p>12 Classic, of infringing Mr. Armstrong's '700 patent; is</p> <p>13 that correct?</p> <p>14 A. Yes, I understand that.</p> <p>15 Q. Now, sir, during the time that you were developing</p> <p>16 the Wii Remote, had you ever heard of Mr. Brad</p> <p>17 Armstrong?</p> <p>18 A. No, I had not.</p> <p>19 Q. Had you ever met him before?</p> <p>20 A. No.</p> <p>21 Q. Do you know whether he's here in this courtroom?</p> <p>22 A. No, I don't know.</p> <p>23 Q. Now, sir, had you ever heard of Mr. Armstrong's</p> <p>24 '700 patent anytime before this lawsuit was filed?</p> <p>25 A. No, I had not.</p>	<p style="text-align: right;">Page 896</p> <p>1 Q. Let me just ask you this, because I want to make</p> <p>2 sure that we're clear on this. Who at Nintendo had the</p> <p>3 idea of putting an accelerometer in the Wii Remote?</p> <p>4 A. I was the one who pushed that idea.</p> <p>5 Q. Now, sir, let me, if I can --</p> <p>6 MR. GUNTHER: Your Honor, may I approach?</p> <p>7 THE COURT: You may.</p> <p>8 BY MR. GUNTHER:</p> <p>9 Q. I'm handing you a Wii Remote.</p> <p>10 A. Yes.</p> <p>11 Q. Are there any other features in the Wii Remote that</p> <p>12 you were primarily responsible for, in terms of the</p> <p>13 idea?</p> <p>14 A. I was the one who found the pointer technology.</p> <p>15 Q. And, sir, can you tell us what you mean by "the</p> <p>16 pointer technology" and show us where that is resident</p> <p>17 in the Wii Remote?</p> <p>18 A. The pointer is actually mounted right here</p> <p>19 (indicating), at the end of -- right here in the end.</p> <p>20 Q. I'm sorry. Could you --</p> <p>21 A. As for the functions of the pointer, there is a</p> <p>22 kind of camera contained here (indicating). However,</p> <p>23 it's not like your ordinary digital camera that can take</p> <p>24 pretty pictures. This is a camera that can -- is</p> <p>25 sensitive only to certain kinds of light.</p>

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<p style="text-align: right;">Page 937</p> <p>1 console. When the console receives that signal, the 2 console then recognizes that the player has gone through 3 the action of throwing the ball. 4 Q. Why don't you try to pick up the spare. 5 A. I'll do my best. This time I'm going to try to 6 throw a quick ball. 7 (Demonstrating.) I'm very sorry. 8 Q. This will be the last one. Give me one more try. 9 See if you can get a strike. No pressure. 10 A. (Demonstrating.) 11 Q. Would you like to demonstrate quickly another game 12 for us? 13 A. Using the pointer, I get out of the bowling game. 14 Next, I'd like to explain the baseball game. 15 Again, because I'm playing it just by myself, I will 16 select the Number 1. And I'm going to use the same 17 character as before. 18 In this case you don't use the buttons on the 19 Remote at all. Just by swinging the Remote, that makes 20 the bat swing (demonstrating). 21 The game is about to begin, and I'm the 22 batter. All you have to do to operate it is to just 23 swing the Remote, as you saw (demonstrating). And you 24 don't even have to swing it very hard. You can swing it 25 quite lightly.</p>	<p style="text-align: right;">Page 939</p> <p>1 boxing game. 2 Could you tell us how you do that and what 3 you need in terms of the controllers to do that? 4 A. First of all, by using the pointer, I'd like to 5 switch over to the boxing game. Again, because I'm a 6 single player, I choose the Number 1; and, also, I will 7 stay as the same character. 8 Here comes up a screen that says to play this 9 game, you need to use the Nunchuk controller. And, so, 10 I will -- would it be okay if I use the controller 11 that's right there? 12 Q. There you go. 13 A. In the bottom of the Remote, there is this 14 extension connector here; and, so, that's where I'm 15 going to connect the Nunchuk. 16 Q. Now, before you get going -- because you're playing 17 against the computer, aren't you? 18 A. That's right. 19 Q. Are you blue gloves or red gloves? 20 A. I've got the blue gloves. And where you can see my 21 opponent's face, that is the computer. 22 Q. All right. So, now if you can do a little boxing 23 for us and describe, as you're doing it, how you're 24 using the Wii Remote and the Wii Nunchuk. 25 A. (Demonstrating.) For both the Nunchuk and the</p>
<p style="text-align: right;">Page 938</p> <p>1 Q. Again, if you can tell us, as you're the next 2 batter -- sorry. I distracted you. As you're doing 3 that, can you tell us again how the accelerometer enters 4 into what's happening? 5 A. When I'm in the ready position, I'm holding the Wii 6 Remote in this fashion (demonstrating). And that way 7 the accelerometer points to the bottom; and, so, it 8 knows that I'm going to swing in the ready position. 9 And next, when I actually take a swing, that 10 generates an acceleration. Then when that acceleration 11 is -- takes place, the accelerometer detects that 12 acceleration and conveys it to the Wii Remote; and the 13 Wii Remote then, in turn, conveys that to the console. 14 Q. Are you now the pitcher? 15 A. Yes, that's right. We've had a changeover here, 16 and now I'm doing pitching. 17 Q. All right. We'll just do one throw. But if you 18 can show how the Wii Remote is used to actually throw a 19 pitch. 20 A. By using the button and using a certain kind of 21 motion, I can throw a change-up pitch; and that's what 22 I'd like to do here. So, I'm now going to go through 23 the motion of pitching (demonstrating). 24 Q. Okay. Let me ask you if you could do this. I just 25 want to demonstrate one more game, and this is the</p>	<p style="text-align: right;">Page 940</p> <p>1 Remote control, when you thrust it forward, you get a 2 punch. You thrust the Remote forward, you get a punch; 3 likewise with the Nunchuk. 4 Also, if you apply acceleration to the left 5 and the right, as you can see, the character himself 6 goes to the left or the right. (Demonstrating.) 7 And, so, with simple motions of this kind, 8 you can play the boxing game. 9 Q. Now, are you using any buttons or joysticks as you 10 play this game? 11 A. No. It is simply the motions of thrusting the 12 Nunchuk or the Remote control forward, as you can see 13 here (demonstrating). I'm not using the analog stick or 14 the buttons. 15 Q. Thank you very much for the demonstration, 16 Mr. Ikeda. You can re-take the witness stand. 17 MR. GUNTHER: And for the record, the Wii 18 console system is Defendant's Exhibit 169; the Wii 19 Sports game disk that was being demonstrated is 20 Defendant's Exhibit 171; the Wii Remote is Defendant's 21 Exhibit 167; and the Wii Nunchuk is Defendant's 22 Exhibit 162. 23 BY MR. GUNTHER: 24 Q. Mr. Ikeda, we talked about your role in developing 25 the Wii controllers; and I'd like to ask you this</p>

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<p style="text-align: right;">Page 1001</p> <p>1 MR. GUNTHER: Your Honor, may I make a brief 2 interim statement? 3 THE COURT: You may. 4 MR. GUNTHER: Ladies and gentlemen, 5 Mr. Pederson is going to testify. He's a senior 6 director of technical services at Nintendo of America in 7 Redmond, Washington; and he's going to talk a little bit 8 about the video game controllers. He's also going to 9 talk a little bit about his background at Nintendo. 10 He's been there for quite awhile, and he can tell you a 11 number of things about how the company got started. 12 One of the things he is going to tell you -- 13 and I had mentioned this in my opening statement -- is 14 how Donkey Kong got its name. 15 MR. CAWLEY: Your Honor, I hate to interrupt; 16 but I'm told that there are some objections on 17 demonstratives that haven't been addressed yet. I don't 18 know if we will reach those before the next break or 19 not, but I wanted to let the court know. 20 THE COURT: The objections are overruled. 21 MR. CAWLEY: Thank you, your Honor. 22 DIRECT EXAMINATION OF JOHN PEDERSON 23 CALLED ON BEHALF OF THE DEFENDANT 24 BY MR. GUNTHER: 25 Q. Mr. Pederson, could you please introduce yourself</p>	<p style="text-align: right;">Page 1003</p> <p>1 for its products? 2 A. From what I understand -- I've been at Nintendo for 3 a long time; so, I haven't experienced the return rates 4 at other companies. But I've been to return seminars 5 and heard of other companies' return rates. Ours are at 6 2 percent or less; and many other companies are higher 7 than that, much higher. 8 Q. Now, sir, are you familiar with the Nintendo 9 products that -- the Nintendo products that are sold and 10 have been sold historically and how they work? 11 A. Yes. 12 Q. And what's your basis of knowledge of those 13 products? 14 A. Well, I need to understand how the products work so 15 that we can properly service the products, correct any 16 problem that exists. 17 Q. Now, sir, do you, yourself, get involved in 18 actually developing Nintendo's video game products? 19 A. No, I do not. 20 Q. Now, let me ask a few questions about your 21 background and how you came to work at Nintendo. Can 22 you please describe for us your educational background 23 starting with high school? 24 A. I went to Roosevelt High School in north Seattle 25 and graduated in 1974, and then I went on to North</p>
<p style="text-align: right;">Page 1002</p> <p>1 to the jury. 2 A. My name is John Pederson, and I'm the senior 3 director of technical services at Nintendo of America. 4 Q. And how long have you worked at Nintendo of 5 America? 6 A. Since June of 1981. 7 Q. June of 1981, you said? 8 A. Correct. 9 Q. Now, sir, was Nintendo of America a large company 10 when you started working there? 11 A. No. It was small. In fact, I was the second 12 employee hired. 13 Q. And, sir, what do you do currently as senior 14 director of technical services at Nintendo of America? 15 A. I oversee the repair of consumer products. So, 16 when a consumer has a broken -- one of our products, 17 they send it in for repair. I oversee those services. 18 Q. And, sir, can you tell us: In terms of that 19 function, how many people do you supervise? 20 A. I have 60 employees, Nintendo of America employees, 21 and about -- between 150 to 200 temporary employees. 22 Q. And those are all people that you supervise? 23 A. Yes. 24 Q. Now, sir, can you tell us anything about the return 25 rate or the quality assurance that Nintendo has in place</p>	<p style="text-align: right;">Page 1004</p> <p>1 Seattle Community College and received an Associate of 2 Applied Science Degree in Electronics Engineering 3 Technologies in '76. 4 Q. That was in 1976? Let me just focus on that. That 5 was an associate's degree, you said? 6 A. Correct. 7 Q. And how many years did you take that degree? 8 A. Two years. 9 Q. Okay. And, sir, do you have any formal education 10 beyond that? 11 A. No. 12 Q. When did you begin working at Nintendo of America? 13 A. It was in 1981. 14 Q. And, sir, when you first joined the company, what 15 did you do? 16 A. My job was to help customers over the phone with 17 the repair of the coin-operated products that we were 18 selling at that point in time and to determine what 19 parts they needed to actually repair those and get those 20 shipped out. 21 Q. Now, sir, when you first started with the company 22 in 1981, was there any other special project that you 23 were involved with? 24 A. When I started with the company, we had a stock of 25 video games that were called "Radar Scope."</p>

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<p style="text-align: right;">Page 1025</p> <p>1 Nunchuk -- the Remote, Defendant's Exhibit 167; and the 2 Nunchuk, Defendant's Exhibit 162. 3 Thank you, your Honor. 4 THE COURT: Mr. Cawley? 5 MR. CAWLEY: Thank you, your Honor. May I 6 pull the easel over? 7 THE COURT: Please. 8 And while you're doing that, Mr. Gunther, did 9 you say one of those is Plaintiff's Exhibit 118? 10 MR. GUNTHER: No, your Honor. I'm sorry. I 11 may have misspoken. Let me take a look. 12 Your Honor, it's very possible I misspoke. 13 THE COURT: Okay. 14 MR. GUNTHER: I meant to say Defendant's 15 Exhibit 118. 16 THE COURT: All right. 17 MR. GUNTHER: Thank you, sir. 18 MR. CAWLEY: May I proceed, your Honor? 19 THE COURT: Please. 20 MR. CAWLEY: Thank you. 21 CROSS-EXAMINATION OF JOHN PEDERSON 22 BY MR. CAWLEY: 23 Q. Good afternoon, Mr. Pederson. 24 A. Good afternoon. 25 Q. You've worked for Nintendo for around 25 years; is</p>	<p style="text-align: right;">Page 1027</p> <p>1 works for Nintendo Company Limited, right? 2 A. That's my understanding, yes. 3 Q. In Japan. 4 And Ms. Story, who testified just before you, 5 works for Nintendo of America, correct? 6 A. Yes. 7 Q. And you work for Nintendo of America. 8 A. Correct. 9 Q. And it's Nintendo of America that is the defendant 10 in this lawsuit and that is accused of infringing the 11 '700 patent; is that correct? 12 A. I'm not that familiar with the paperwork in the 13 case, I guess. 14 Q. Fair enough. I think there will be plenty of other 15 sources from which we can confirm that it's Nintendo of 16 America that's the defendant in the lawsuit. 17 Now, your job is essentially to oversee the 18 service of Nintendo products for consumers and 19 retailers, correct? 20 A. Correct. 21 Q. And you didn't design any of the controllers that 22 you just told us about, did you? 23 A. No, I did not. 24 Q. Instead, it's your Japanese parent, Nintendo 25 Company Limited, that designed all those controllers; is</p>
<p style="text-align: right;">Page 1026</p> <p>1 that right? 2 A. Yeah, nearly 27. 3 Q. I wonder if I could get you to explain something 4 that's sort of been in the courtroom for a bit, but I'm 5 not sure we've had it spelled out and I want to make 6 sure there is no confusion. 7 The company you work for is called what? 8 A. Nintendo of America, Incorporated. 9 Q. Okay. So, you work for Nintendo of America. And 10 Nintendo of America is owned by what company? 11 A. Nintendo Company Limited. 12 Q. A Japanese parent? 13 A. Yes. 14 Q. And Nintendo Company Limited owns how much of 15 Nintendo of America? 16 A. It's a wholly-owned subsidiary; so, it's a hundred 17 percent, I believe. 18 Q. And just to make sure we keep this straight, 19 Nintendo of America is obviously the U.S.-based company, 20 correct? 21 A. Correct. 22 Q. And Nintendo Company Limited is the Japanese 23 company? 24 A. Yes. 25 Q. And Mr. Ikeda, who was here with us earlier today,</p>	<p style="text-align: right;">Page 1028</p> <p>1 that accurate? 2 A. That's my understanding. 3 Q. And just so there is not any confusion -- I think 4 this is clear from your testimony, but I want to be 5 sure. The GameCube controller has a motor with an 6 eccentric weight in it that accomplishes rumble, 7 correct? 8 A. Yes. There is a vibration motor. 9 Q. And the way that vibration motor works is through a 10 small electric motor with an offset weight on a shaft, 11 correct? 12 A. That's my understanding, correct. 13 Q. And when the motor spins, it spins that eccentric 14 weight and causes vibration, fair? 15 A. Yeah. I haven't disassembled one personally, but 16 that's my understanding. 17 Q. Well, would you like to see one? We happen to have 18 a couple in the courtroom here, in case you're curious. 19 Maybe you can catch that on the way out, since I don't 20 have any questions to ask you about it, if you're 21 curious. 22 And in the same way, the Wii Remote also has 23 a motor like that that provides rumble or vibration, 24 correct? 25 A. Correct.</p>

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<p style="text-align: right;">Page 1029</p> <p>1 Q. Now, in the Wii controller products, a user can't 2 use the Wii Nunchuk controller if it's not connected to 3 the Wii Remote controller; isn't that right? 4 A. That's correct. It has no way to communicate 5 otherwise. 6 Q. Okay. And in the same way, a user can't use the 7 Wii Classic Controller if it's not connected to the Wii 8 Remote controller. 9 A. Correct. Again, for communication. 10 Q. Okay. And the Wii Remote controller -- we've heard 11 quite a bit about -- has an accelerometer in it, 12 correct? 13 A. Correct. 14 Q. And that accelerometer in the Wii Remote provides 15 three separate signals representing acceleration along 16 three different axes; isn't that right? 17 A. Correct. 18 Q. And you would agree with me, wouldn't you, that the 19 use of those three outputs is up to the game designer? 20 A. Yes. 21 Q. So, just so we understand what that means, although 22 Nintendo has the popular games that we've seen, do other 23 people write games for the Nintendo console? 24 A. Yes. 25 Q. And I guess Nintendo licenses them to be able to do</p>	<p style="text-align: right;">Page 1031</p> <p>1 A. Uh-huh. 2 Q. I just want to make sure I'm clear on this. Do you 3 know, sir -- because you testified you haven't taken one 4 apart. 5 A. Right. 6 Q. Do you know whether or not the offset weight is 7 connected to the shaft? Do you know that? 8 A. I don't, because I haven't had one apart. 9 MR. GUNTHER: No further questions, your 10 Honor. 11 THE COURT: Do you have anything? 12 MR. CAWLEY: No, your Honor. I'm sorry. 13 THE COURT: Okay. You may step down, sir. 14 Does anybody object to this witness being 15 excused? In the meantime, start calling your next 16 witness. 17 MR. GUNTHER: Not for Nintendo, your Honor. 18 MR. CAWLEY: No objection, your Honor. 19 THE COURT: All right. Then, sir, you are 20 excused, which means you can leave or not leave as you 21 wish. But don't discuss the testimony in this case or 22 your -- your testimony with anybody except the lawyers 23 until the trial is over. Once the trial is over, you 24 can talk to anybody you want. And like I say, you can 25 stay if you wish; or you're free to leave. Thank you,</p>
<p style="text-align: right;">Page 1030</p> <p>1 that? 2 A. Yes. 3 Q. So, if someone wanted to start a company and came 4 to Nintendo and made their proposal and agreed to pay a 5 licensing fee to Nintendo, that person could start 6 designing their own games for the Wii, for example, 7 true? 8 A. I'm not that familiar with the business 9 relationship side of how we agree on those license 10 agreements, but we do license other companies to write 11 software for our machines. 12 Q. Okay. But you do know, don't you, that if a 13 company like that decides that they want to write 14 software to make a Wii-compatible game, they can decide 15 how to use the outputs of the controller in their game? 16 A. Yes. As I testified, that's the -- you know, why 17 they have evolved. Right. 18 Q. Okay. Thank you, Mr. Pederson. 19 MR. CAWLEY: That's all the questions I have, 20 your Honor. 21 REDIRECT EXAMINATION OF JOHN PEDERSON 22 BY MR. GUNTHER: 23 Q. Mr. Pederson, I just want to ask you about one 24 thing; and that's the vibration motor that Mr. Cawley 25 asked you some questions about.</p>	<p style="text-align: right;">Page 1032</p> <p>1 sir. 2 THE WITNESS: Thank you. 3 THE COURT: Who's next? 4 MR. PRESTA: Your Honor, Nintendo calls 5 Mr. Robert Dezmelyk. 6 THE COURT: Step forward, sir. 7 MR. PRESTA: And before I start, I'd like to 8 request the court if I could do an interim statement. 9 THE COURT: Sure. 10 MR. PRESTA: And also hand out some 11 notebooks. 12 THE COURT: Sure. 13 (The oath is administered.) 14 MR. PRESTA: May it please the court? 15 Ladies and gentlemen, the next witness is 16 Mr. Robert Dezmelyk. He is an expert. He'll tell you 17 about his qualifications. He's an expert in the field 18 of controller design and manufacturing, and I'll let him 19 explain his qualifications to you. 20 I'm going to be calling him for several 21 different reasons. There's numerous issues in the case. 22 One of the very important issues in the case involves 23 whether the claims that were filed in 2002, after 24 Mr. Armstrong learned about the GameCube controller that 25 Nintendo had -- whether those games are supported by a</p>

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<p style="text-align: right;">Page 1041</p> <p>1 In the middle of the 1990s, our company wrote</p> <p>2 essentially all of the software drivers for all of the</p> <p>3 touchpads that were being used, for companies like Sony</p> <p>4 or Compaq down here in Texas -- I used to spend a lot of</p> <p>5 time in Texas -- and Dell and other companies like that.</p> <p>6 After that, I did much more work on</p> <p>7 interfaces and, in particular, USB. I --</p> <p>8 Q. Okay. Let me stop you right there.</p> <p>9 A. Sure.</p> <p>10 Q. For those of us who may not be familiar, what is</p> <p>11 "USB"?</p> <p>12 A. USB is universal serial bus. It's that</p> <p>13 interconnection we have on our PCs. It's a little</p> <p>14 square connector. If you've plugged a mouse into a PC</p> <p>15 these days or the little -- we call them "thumbsticks"</p> <p>16 sometimes, those little memory sticks, or a camera or</p> <p>17 things. That connector is a universal serial bus, or</p> <p>18 USB.</p> <p>19 I led the standards effort for the human</p> <p>20 input device, part of that standard which covers the</p> <p>21 mice and keyboards, touchscreens, joysticks, and things</p> <p>22 like that.</p> <p>23 Q. Okay. Thank you.</p> <p>24 Now, have you had any interest in game</p> <p>25 controllers over the years?</p>	<p style="text-align: right;">Page 1043</p> <p>1 the basement and I have a pretty strict injunction that</p> <p>2 they are not allowed to come upstairs.</p> <p>3 Q. And why do you have those?</p> <p>4 A. Well, I'm interested in them, first off; and I</p> <p>5 started along the way collecting them. But it's also a</p> <p>6 way of understanding what people did over time. Many of</p> <p>7 these I worked on. Some of them were prototypes that we</p> <p>8 got in the process of building things. In other cases,</p> <p>9 I bought them in stores because I liked them. They were</p> <p>10 interesting. But it gives me a way of looking back over</p> <p>11 the history of what people have done in that technology.</p> <p>12 Q. Thank you.</p> <p>13 Now, have you had a chance to look at the</p> <p>14 1996 patent application that was filed by Mr. Armstrong?</p> <p>15 A. Yes, I have.</p> <p>16 Q. Okay. And in your notebook I gave you a copy of</p> <p>17 that application. It's Defendant's Exhibit 306. And</p> <p>18 the jury also has a copy of this application in their</p> <p>19 notebook.</p> <p>20 Now, I would like to ask you some questions,</p> <p>21 Mr. Dezmelyk, about what is disclosed in that 1996</p> <p>22 application. Okay?</p> <p>23 A. Certainly.</p> <p>24 Q. And you have had a chance to review that</p> <p>25 application in detail?</p>
<p style="text-align: right;">Page 1042</p> <p>1 A. Yes, I have.</p> <p>2 Q. Could you tell us a little bit about that?</p> <p>3 A. Well, sure. In the arcade game I designed, of</p> <p>4 course, it had controllers; and we experimented with</p> <p>5 several different configurations -- two joysticks, one</p> <p>6 joysticks, joysticks and buttons. An arcade game is</p> <p>7 kind of unique because they have to be rugged. So, you</p> <p>8 have some limitations on the type of controllers you can</p> <p>9 use.</p> <p>10 I've also designed a number of other input</p> <p>11 devices that had been useful in that environment. I</p> <p>12 actually wrote the drivers for the Cyberman, a Logitech</p> <p>13 input device that was a multidegree-of-freedom device.</p> <p>14 I worked on the handheld tilt sensor that</p> <p>15 was -- you could tilt your hand to control the cursor on</p> <p>16 the screen. And a variety of other input devices.</p> <p>17 Q. Do you have -- do you have any sort of collection</p> <p>18 of controllers?</p> <p>19 A. Yeah. I'm a pack rat. My wife may not be very</p> <p>20 happy about that, but we live out in the countryside and</p> <p>21 there is a barn out behind our house and in it are</p> <p>22 hundreds, maybe close to a thousand input devices. Over</p> <p>23 the years I've gathered up and collected various samples</p> <p>24 of mice and joysticks and game controllers and so forth;</p> <p>25 and they're piled up in boxes in the barn and also in</p>	<p style="text-align: right;">Page 1044</p> <p>1 A. Yes, I have.</p> <p>2 Q. Okay. Now, before I start --</p> <p>3 MR. PRESTA: Could I pull up Slide 17,</p> <p>4 please?</p> <p>5 Excuse me, your Honor. Just getting set up</p> <p>6 here.</p> <p>7 Slide 17, please.</p> <p>8 BY MR. PRESTA:</p> <p>9 Q. Now, we've had some timelines in this case,</p> <p>10 Mr. Dezmelyk. Did you help create some graphics to help</p> <p>11 the jury sort of understand this issue of the 1996</p> <p>12 application?</p> <p>13 A. Yes, I did.</p> <p>14 Q. Okay. And can you tell me what is now being shown</p> <p>15 on the screen?</p> <p>16 A. Well, this is just one of the pages from that</p> <p>17 application.</p> <p>18 Q. Now, it indicates that that application was filed</p> <p>19 in 1996. And have you heard that application referred</p> <p>20 to in court here as the "warehouse application"?</p> <p>21 A. Yes, I have.</p> <p>22 Q. Okay. And do you have an understanding of why that</p> <p>23 warehouse application is important to this case?</p> <p>24 A. Yes, I do.</p> <p>25 Q. And why is that?</p>

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<p style="text-align: right;">Page 1045</p> <p>1 A. Well, this is the application that Mr. Armstrong is 2 trying to claim the priority date of. 3 Q. Okay. And I'm also going to add some other things 4 to the timeline. Do you recognize the July 15th, 2002, 5 item on the timeline? 6 A. Yes, I do. 7 Q. What is that? 8 A. That's the date of a set of new claims that were 9 submitted to the Patent Office related to this 10 application. 11 Q. Okay. And you have heard the testimony in this 12 case that, in fact, those claims, when Mr. Armstrong 13 filed them, he had in his possession the GameCube 14 product. Do you understand that? 15 A. That's correct, yes. 16 Q. Okay. And, in fact, could you explain to the jury 17 your understanding of how the claims came to be, for 18 example, claim 19? 19 A. Well, my understanding is that that claim was 20 derived by Mr. Armstrong observing the GameCube 21 controller and then drafting the claim to cover that 22 controller. 23 Q. Okay. So, is it your understanding, then, that 24 there are claims in that 2002 filing that are very 25 similar to the GameCube product?</p>	<p style="text-align: right;">Page 1047</p> <p>1 A. New material that was not present in the 2 original -- 3 MR. CAWLEY: Objection, your Honor. That's a 4 misstatement of a legal principle that the court has 5 pointed out repeatedly. 6 MR. PRESTA: Perhaps I didn't under -- 7 THE COURT: Why don't you rephrase the 8 question? 9 MR. PRESTA: Okay. I forget exactly what the 10 question was now, your Honor. 11 BY MR. PRESTA: 12 Q. But I think my point was whether you had an opinion 13 as to whether the claims that were filed in 2002 -- that 14 claimed invention that was submitted in 2002 is found 15 back in the 1996 application. 16 A. I believe it is not. 17 Q. You believe it's not. 18 And why do you believe it's not? 19 A. Because the claim scope that's present is not 20 disclosed in the written description in either of the 21 earlier applications. 22 Q. Now, you say "either of the earlier." Are you 23 talking about the 1996 filing? 24 A. Right. 25 Q. As well as the 2000 filing?</p>
<p style="text-align: right;">Page 1046</p> <p>1 A. That's correct. 2 Q. Okay. Now, there is an issue in the case; and can 3 you tell me -- I put a red arrow back here. What does 4 that really mean to you? 5 A. Well, that means that there's -- I guess the word 6 would be a "need" in order to sustain the validity of 7 that claim, that that claim is entitled to the priority 8 date or the filing date of the original 1996 9 application. 10 Q. Okay. And why is that necessary for validity, in 11 your opinion? 12 A. Well, that's necessary because there is intervening 13 prior art. In other words, between 1996 and the later 14 date, there is the filing date of the '700 application; 15 there is other prior art that would invalidate that 16 claim. 17 Q. Okay. Now, did you undertake -- do you have an 18 opinion as to whether or not those claims filed in 2002 19 that are being asserted in this case against Nintendo -- 20 whether they are entitled to go back to 1996? 21 A. I believe they are not entitled to the earlier 22 date. 23 Q. And why is that? 24 A. Well, they contain new material. 25 Q. They contain what? I'm sorry?</p>	<p style="text-align: right;">Page 1048</p> <p>1 A. Right. 2 Q. Okay. Now, let me -- I'm going to ask if we could 3 please pull up Defendant's Exhibit 306. 4 BY MR. PRESTA: 5 Q. Now, do you recognize that? 6 A. Yes, I do. 7 Q. Okay. And you'll agree with me that it's the 8 application that Mr. Armstrong filed in 1996 that's 9 known as the "warehouse application" here, right? 10 A. Yes. This is the front -- first page. 11 Q. Okay. Now, I'm going to ask you to turn to the 12 figures in the application that begin on page -- mine 13 306.57, meaning it's Exhibit 306, page 57. 14 A. Okay. 15 Q. And do you see that on the screen? 16 A. Yes, I do. 17 Q. Okay. Now, this is from -- do you understand that 18 this is from the prosecution history, the records of the 19 Patent Office, that it's a copy of the application that 20 was filed? 21 A. Yes, I understand that. 22 Q. Okay. Now, I see that there is a patent number on 23 the side, 6,222,525. Do you know what that patent is? 24 A. That would be the '525 patent. 25 Q. That actually issued from this application.</p>

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<p style="text-align: right;">Page 1049</p> <p>1 A. That's correct. 2 Q. Okay. But we're looking at the application itself 3 right now. 4 A. That's correct. 5 Q. Okay. 6 MR. PRESTA: Now, the '525 patent, just for 7 the record, is Defendant's Exhibit 15. 8 BY MR. PRESTA: 9 Q. Now, I wanted to ask you if you could take a look 10 at Figure 1. 11 Now, first of all, is it your understanding 12 that the claims at issue in this case all describe a 13 controller that has two joysticks and a cross-switch? 14 A. Yes. That's the -- the claim scope that's been 15 asserted. In other words, all of the devices that have 16 been accused, certainly have that characteristic. 17 Q. Okay. Now -- all of the GameCube devices, right? 18 A. All of the GameCube devices. That's right. 19 Q. Okay. So, is it your understanding, then, that you 20 need to go back to the 1996 application and see if you 21 can find in that application a description of that type 22 of a device with the two joysticks and a cross-switch? 23 A. Right. It's necessary, in order for the patent to 24 have an adequate written description, that we can take 25 the claim, the elements of the claim, and find them</p>	<p style="text-align: right;">Page 1051</p> <p>1 A. Well, it does not include or disclose a vibration 2 motor. There is no motor shown in this drawing. 3 There is also no joystick shown, and there's 4 not what we've been calling a "D-pad" or what I may call 5 the "hat switch" occasionally. 6 Q. Okay. 7 A. None of those are present. 8 Q. Okay. Now, in turning to Figure 2, do you 9 recognize that figure? And could you tell the jury what 10 it is and if it relates back to Figure 1? As we go 11 through this, I would like it if you could just try to 12 explain to the jury what these figures are; and maybe if 13 they relate to each other, you could indicate that. 14 A. Sure. Let me try to explain this one. This is a 15 little more complicated drawing. This one is looking at 16 the side of the same thing we were looking at on the 17 top. And if I can just use a laser pointer a bit here. 18 The ball is in the middle (indicating). That's a 19 trackball. It's going to rotate. The person's hand is 20 going to come down from above and rotate that ball. 21 The little detectors (indicating) that detect 22 the rotation of these parts here, we saw them in the 23 last figure. 24 The framework we saw from above is this 25 structure around here (indicating).</p>
<p style="text-align: right;">Page 1050</p> <p>1 expressed, in some way, in a way that we can identify 2 that the inventor had that idea back in the original 3 specification. 4 Q. Okay. And I want to do that starting with the 5 figures. And I'd like for you to go through the 6 figures -- in fact, we're on Figure 1 of the application 7 that was filed in 1996. And can you tell me what that 8 figure is showing? 9 A. Yes. This is a top view -- a drawing -- first, if 10 I might, the drawings in patents are kind of like a 11 formal draftsman's drawing. They're always in black and 12 white, and they're usually shown in different 13 directions. 14 We're looking down on the top here of a 15 device; and it's showing a ball, which is a circle in 16 the center. And you'll note there's two items. One is 17 numbered 128; one is numbered 126. Those are a couple 18 of rotary encoders that detect the ball turning. This 19 is actually showing a trackball that is then mounted on 20 some platforms and so forth. 21 Q. Okay. Does this figure show the combination of 22 elements that are present in the claims that are 23 asserted against Nintendo in this case? 24 A. No, it is not. 25 Q. Okay. What is it missing?</p>	<p style="text-align: right;">Page 1052</p> <p>1 And there is also a small -- what's called a 2 "collet" or a "collar," because it goes around the ball 3 (indicating), which can be turned or twisted by the 4 hand. 5 So, this is describing an input device that's 6 got a trackball in the middle and you can push this 7 trackball back and forth and side to side or you can 8 push it up and down a little bit and it will detect with 9 these little switches here (indicating) whether it's 10 being lifted up, pushed down, or slid to one of the 11 sides. 12 Q. Okay. Does that figure describe the features that 13 you see on the GameCube controller that's in this case? 14 A. No. There's obviously no joystick. There's no 15 buttons. There's no vibration motor. And there's no 16 D-switch. 17 Q. All right. Now, when you say "D-switch," you 18 mean -- I referred to it as a "cross-switch." 19 A. Cross-switch. I'll use the word "cross-switch." 20 Q. Okay. 21 MR. PRESTA: Can we turn to the next figure, 22 3? 23 BY MR. PRESTA: 24 Q. Now, if you think they are the same figure from a 25 different angle, please explain that to the jury. I</p>

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<p style="text-align: right;">Page 1103</p> <p>1 indicates?</p> <p>2 A. Well, this slide is the steps. I'm going to back</p> <p>3 up a little bit and make that a little clearer, that I'm</p> <p>4 going to be looking, as part of my analysis, to see</p> <p>5 where in that application, where in the specification --</p> <p>6 the description that the inventor makes called the</p> <p>7 "specification" of the patent -- where, if anywhere, he</p> <p>8 disclosed the ideas that make up or that constitute the</p> <p>9 claimed invention. And there is a couple different</p> <p>10 parts of that application. It's a thick document. And,</p> <p>11 in particular, it's got drawings. It's got his written</p> <p>12 verbal text description. It's kind of complicated text;</p> <p>13 so, we may have to go through it carefully.</p> <p>14 But the first step is to look at the drawings</p> <p>15 because it's usually a little easier to look at the</p> <p>16 drawings than it is the text. And I'm going to add on</p> <p>17 that there's also -- although, we don't really need to</p> <p>18 look at them much in this matter -- technically</p> <p>19 speaking, the claims that he filed at that point in time</p> <p>20 are part of the specification. But those are not the</p> <p>21 claims we're talking about now because those claims were</p> <p>22 not used -- those inventions described in those claims</p> <p>23 and those claims are not relevant to the matter we're</p> <p>24 here on today.</p> <p>25 Q. Okay. Did you undertake a review of the drawings</p>	<p style="text-align: right;">Page 1105</p> <p>1 number on the slides, whenever possible, in the bottom</p> <p>2 right-hand corner, correct?</p> <p>3 A. That's correct. There should be, down in the</p> <p>4 corner there, where somewhere -- a place that you can</p> <p>5 find it if you want to look right at the actual drawing</p> <p>6 or text or picture in the juror notebook or if you want</p> <p>7 to make a note or something where it is.</p> <p>8 Q. Okay. And what is this -- just an overview of what</p> <p>9 this figure generally is?</p> <p>10 A. Sure. This is a picture where Mr. Armstrong is</p> <p>11 describing or beginning to describe his idea. And, in</p> <p>12 particular, he's explaining that there is what he calls</p> <p>13 an "input element" here, 12; and it has -- it can roll</p> <p>14 around that direction. It can pitch back and forth this</p> <p>15 way (indicating).</p> <p>16 Q. Let me just stop you for just one second. Now,</p> <p>17 this isn't actually a controller product, is it? Just</p> <p>18 try and --</p> <p>19 A. No.</p> <p>20 Q. -- put this in perspective for the jury of what it</p> <p>21 is. It's not --</p> <p>22 A. Right.</p> <p>23 Q. Thank you.</p> <p>24 A. Okay. Just to explain this, this is a complicated</p> <p>25 idea; so, he's working in steps to explain it. And the</p>
<p style="text-align: right;">Page 1104</p> <p>1 in the 1996 application?</p> <p>2 A. Yes, I did.</p> <p>3 Q. And you prepared some slides to help the jury</p> <p>4 understand those?</p> <p>5 A. Yes, I did. There's quite a few drawings in that</p> <p>6 application; so, I actually sorted out the ones that</p> <p>7 were important in this case. There are other ideas in</p> <p>8 there that are not related at all; so, we're not going</p> <p>9 to look at every picture in there because we would be</p> <p>10 here for days. But we're going to focus on the ones</p> <p>11 that are related to this case and the claims that came</p> <p>12 out of it.</p> <p>13 Q. Okay. Can you first tell the jury why you have</p> <p>14 that figure?</p> <p>15 A. Sure. I think this is a good starting point for us</p> <p>16 to try to understand the idea that's described in that</p> <p>17 specification.</p> <p>18 And what this shows, Figure 7, is a ball, in</p> <p>19 the middle. And, again, we're going to put highlighting</p> <p>20 on things in these pictures. These are all</p> <p>21 black-and-white drawings. It's a tradition in the</p> <p>22 Patent Office, from the beginning of our country, to</p> <p>23 make the drawings just like a pen-and-ink drawing.</p> <p>24 Q. And let me just stop you for one second. I'll just</p> <p>25 note that you had tried to put the jury notebook page</p>	<p style="text-align: right;">Page 1106</p> <p>1 first thing he's really explaining is there's going to</p> <p>2 be a input member -- in this case he's showing it like a</p> <p>3 ball -- and it can move every which way. It can move</p> <p>4 back and forth along the first, second, or third axis;</p> <p>5 or it can turn on those axes. And, really, if you think</p> <p>6 about it, it's like holding a beach ball in your hand.</p> <p>7 You can turn it any which way; and you can also move it</p> <p>8 up and down, sideways, and back and forth. But there is</p> <p>9 one kind of ball, and you can imagine that that ball</p> <p>10 itself is moving in those different directions.</p> <p>11 Q. Does the term "6 degrees of freedom" relate to this</p> <p>12 figure at all?</p> <p>13 A. Yes, it does. The technical term for that is that</p> <p>14 it has 6 degrees of freedom because you can move it</p> <p>15 three ways -- side to side, forward and backward, up and</p> <p>16 down. Those are the three arrows of what we call</p> <p>17 "linear axes," engineers. And then you can turn it,</p> <p>18 rotate it.</p> <p>19 And the typical words that are used for that</p> <p>20 rotation, to describe it, is what people talk about in</p> <p>21 boats or airplanes -- that it rolls, which means side to</p> <p>22 side; that it pitches, which means front to back; and</p> <p>23 yaw, for it turns, like if you turn your head, you are</p> <p>24 turning your head in the yaw direction.</p> <p>25 Those are just the words that people use to</p>

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<p style="text-align: right;">Page 1107</p> <p>1 talk about which way something is turning. So, if I was 2 trying to describe a boat, I might say my boat is 3 rolling over because the wind is pushing on the sail; or 4 if I go up and down on a wave, it pushes back and forth. 5 And I might say in an airplane that I'm turning my head 6 in a yaw direction, or I'm turning in that direction 7 (indicating). That's a way of describing these things 8 in a more formal sense. 9 Q. So, am I correct, then, that the 6 degrees of 10 freedom that are shown here involve being able to move 11 linearly along all three of the axes in 12 three-dimensional space as well as rotate on all three? 13 A. That's correct. There's six because there are the 14 three axes moving, and there are three ways of turning. 15 Q. Okay. Now let's take a look at the actual other 16 figures in the application. Could you tell me what that 17 figure is? 18 A. Sure. This is Figure 4. It's in your notebook, 19 page 56. And here Mr. Armstrong is describing what he 20 calls -- one of the ways in which he sees his idea. 21 That is what's called an "embodiment." He says: The 22 trackball-type embodiment. 23 "Embodiment" is a special word that's used in 24 patent applications. It says "One of the ways that my 25 invention can be built." And it's often that you make</p>	<p style="text-align: right;">Page 1109</p> <p>1 the hand-operable single input member operable in full 2 6 degrees of freedom. He's saying -- 3 Q. I'm sorry. What does it mean to be operable in 4 full 6 degrees of freedom? Because this is an important 5 concept we're going to talk about. I just want to make 6 sure that people understand it. 7 A. In this case 6 degrees operable means it moves in 6 8 degrees of freedom, and it works in the sense that it 9 outputs data or information about its motion in those 10 full 6 degrees of freedom. 11 Q. Okay. Now, did you prepare an animation; or did 12 you have an animation to help the jury understand how 13 this particular device of Mr. Armstrong's works? 14 A. Yes. There is an animation that will show how this 15 device moves. 16 Q. And I'm going to ask if we could play this and if 17 you could just try to explain to the jury, as it's 18 playing, what's going on. 19 A. Sure. This is showing the ball moving in the 20 different directions, roll -- and now if I move it 21 forward and backward, you'll see the ball and that green 22 ring around it move together, along with the whole 23 platform slides back and forth. 24 Q. Okay. 25 A. So, again it moves -- you can turn the ball in each</p>
<p style="text-align: right;">Page 1108</p> <p>1 examples of these to show people different ways you 2 could make the whole idea. 3 So, he's explaining here that in these 4 figures -- 4 is one of the set -- that this 5 trackball-type is a hand-operable 6-degree-of-freedom 6 controller. And he says: Trackball 12 -- here we see 7 that ball we talked about, just learned about how it 8 moves. It's now -- that Trackball Number 12 is sitting 9 in the middle of this mechanism. 10 One thing that we'll see a lot when we look 11 at patent drawings is you'll see a little number with a 12 line. That's just a way of talking about a particular 13 thing in the drawing to try to -- instead of using words 14 like we do in normal discussion, like "the door over 15 there" or "the window on the side," it's much easier for 16 people making these drawings -- because there are so 17 many pieces -- that they just give numbers to the 18 pieces. So, that 12 refers to the same 12 in any 19 picture where we see that number 12 pointing to a ball. 20 That's conceptually the same ball; in other words, 21 that's the same concept he's carrying forward. 22 Q. Okay. And, in fact, does that Ball 12 correspond 23 to that graph that we were looking at a minute ago? 24 A. Exactly. If we look at the last sentence that is 25 highlighted, that Trackball 12, which in this example is</p>	<p style="text-align: right;">Page 1110</p> <p>1 of those directions; but you can also grab the ball or 2 that little collar around it and push the whole assembly 3 either back and forth, left or right, or up and down. 4 Q. So, then, the ball and the thing around it are 5 related to each other in some way? 6 A. That's correct. And you can see that -- it will 7 get called a "collet," but it's also -- I like the 8 word -- I think he also says "collar" at one point. 9 It's kind of like the collar around your neck and your 10 shirt. It's around it. It can turn relative to it. 11 But if you move the ball from left to right, the collar 12 goes with it. So, the two are attached together 13 mechanically; and it actually is a way to hold -- you 14 don't want to try to push the ball or lift the ball up 15 and down. It's a way to move that ball in the different 16 directions. 17 Q. Okay. Thank you. 18 Now, Mr. Cawley had identified this drawing. 19 This is a figure that Mr. Cawley had put up on the 20 screen. Have you seen that? 21 A. I've seen that picture before, yes. 22 Q. Okay. And Mr. Cawley was saying that this 23 yellow -- do you recall -- that the collet was some type 24 of a second input member? 25 A. Well, it is described here, as you can see, as a</p>

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<p style="text-align: right;">Page 1111</p> <p>1 secondary input member for use maybe for entering other 2 parameters different from the 6 degrees of freedom. 3 If we look here, the trackball in the 4 middle -- that's 12 -- can be moved on all six axes. 5 That ball always can be moved on all six axes. The 6 collet around it, even though it moves with the ball, 7 can be twisted a little bit. So, you could rotate in a 8 twisting sense the same way you might turn a knob. You 9 can twist that extra collar around the ball, but it at 10 all times has to move with the ball. It can never move 11 separately from the ball. And I think the idea that is 12 being expressed here is that that extra secondary input 13 member adds another little bit of functionality that 14 might be used a different way, like a volume control, in 15 essence. That's an idea. 16 Q. Okay. And the part that's in pink that Mr. -- that 17 Anascape did not highlight to the jury, what does the 18 pink part mean? 19 A. Well, that's a very important point, is that this 20 trackball input member is always measured and movable on 21 all six axes. 22 Q. Okay. 23 A. These are words from the application on page 27 24 where the inventor, Mr. Armstrong, is describing how his 25 idea works. And he's saying that, in fact, that member</p>	<p style="text-align: right;">Page 1113</p> <p>1 idea here is that you would rest your arm on that while 2 you were operating the Trackball 12. 3 And there's also shown some buttons up here 4 on the front which would be like the buttons on a mouse 5 or a trackball that you could click to control your 6 personal computer. 7 Q. Now, do those buttons have anything to do with the 8 single input member being movable in 6 degrees of 9 freedom? 10 A. No, they don't. 11 Q. Okay. Are those buttons -- can they be related to 12 that collet that we saw around the ball? 13 A. No. They're just buttons, like buttons on the 14 surface of a mouse or buttons on a phone or something. 15 Q. So, you have a 6-degree-of-freedom element in here; 16 but in addition to that, you have some buttons that you 17 could use for other things. 18 A. That's correct. 19 Q. Okay. Now, that's that same Ball 12 that you 20 described to the jury earlier, right? 21 A. That's right. It's the Ball 12 in the middle 22 there. 23 Q. Okay. And the specification in the juror notebook 24 at page 18, you just described that the trackball is a 25 hand-operable single input member, right?</p>
<p style="text-align: right;">Page 1112</p> <p>1 may be interpreted on all six axes and that I can get an 2 additional separate kind of input from the collet around 3 it. 4 Q. Okay. Is it true, then, that that Item 12 -- we 5 still see that Ball 12. So, is that Item 12 still, by 6 itself, a single input member that can be movable in 6 7 degrees of freedom? 8 A. Yes, it is. 9 Q. And is that exactly what Mr. Armstrong's 10 application says? 11 A. Yes. 12 Q. Okay. But, of course, there's also other things 13 that you can do and there's a secondary input that -- 14 A. That's correct. 15 Q. Now, that doesn't affect the ball from being able 16 to be operated by itself in 6 degrees of freedom, does 17 it? 18 A. No. You can always operate the ball in 6 degrees 19 of freedom. 20 Q. Okay. Now, if I go to the next embodiment in 21 Mr. Armstrong's application, could you tell the jury 22 what this is? 23 A. Sure. This is a variation of the trackball idea. 24 Here, we can see that it's designed with a kind of an 25 Element 142, which is a nice comfortable handle. The</p>	<p style="text-align: right;">Page 1114</p> <p>1 A. That's correct. 2 Q. Okay. Now, could you tell me about this next 3 embodiment? 4 A. Sure. This is an example where the same Ball 12, 5 if we look, has been kind of miniaturized and put in a 6 handheld remote controller, like a TV remote controller. 7 And you would hold this in your hand and operate the 8 ball with your thumb. And it shows again some buttons 9 down here (indicating). And it explains how Trackball 10 12 -- which in this example it's a hand-operable single 11 input member. So, his text is explaining that you 12 operate this with your hand; and then there is a single 13 input member, that ball, which is operable -- that is, 14 returning information -- in a full 6 degrees of freedom. 15 Q. Okay. Now, can you explain to me why -- it says 16 "single." And you just told the jury that that ball is 17 a single handheld operable member in 6 degrees of 18 freedom. But my question to you then is: If it says 19 "single," why are -- what about these other buttons? 20 Can you fairly say that, in fact, that's a single thing 21 when you have all these other buttons? 22 A. Yes, because what the invention is describing is 23 the whole idea. The idea of buttons on a remote 24 controller by themselves is not the invention. In other 25 words, the idea that you can have buttons on a remote</p>

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<p style="text-align: right;">Page 1115</p> <p>1 controller is a well-known idea that existed long before 2 this. So, what the inventor is describing is what is 3 unique about his idea; and that is that he's got a 4 single input member for the 6 degrees of freedom. Also, 5 the buttons don't input positioning or 6 degrees of 6 freedom information. They're buttons like any other 7 button on a remote. 8 Q. Okay. So, it is your understanding that it is 9 still describing a single input member 10 6-degree-of-freedom device as long as it has one thing 11 that can do that, regardless if it has other buttons? 12 A. Right. 13 Q. Okay. And do you remember Mr. Cawley showed this 14 figure and had Mr. Armstrong testify that because there 15 were more buttons there, that there was a multiple input 16 6-degree-of-freedom device? Did you hear that 17 testimony? 18 A. I did. I think it's incorrect. 19 Q. Okay. Why is that incorrect? 20 A. Well, because we have to think in the minds of a 21 practitioner. As an engineer looking at this, I know 22 what buttons are for; and I know what trackballs and 23 controllers and -- motion controllers are for. And when 24 I look at those buttons, I'm not going to think, "Okay. 25 The buttons are giving me the motion. The motion comes</p>	<p style="text-align: right;">Page 1117</p> <p>1 A. That's correct. He's showing ways that might be 2 combined or used with other known technologies and how 3 it might be mounted in them and how that might work. 4 Q. So, even though there's all of these keyboard 5 buttons here and, in fact, there is even that little 6 collet, it looks like, that goes around the ball -- 7 A. That's correct. 8 Q. Even though all those other things are there, is 9 there still a single input member that's operable in 10 full 6 degrees of freedom like the application says? 11 A. Yes. 12 Q. Now if I could ask you to take a look at the next 13 one. 14 A. This is a variation of the trackball idea. In this 15 case 12 -- if you look at it here (indicating) -- is the 16 ball, and it has a handle attached to it. So, instead 17 of putting your fingers on the top of the ball and 18 pushing it back and forth like a trackball, you can just 19 grab onto the handle and then tilt it from side to side 20 or push it back and forth or lift it up and down by 21 holding onto the handle. 22 Q. Okay. 23 A. Of course, you can't turn the ball over completely 24 anymore. Right? You've now limited how much you can 25 tip it because the handle's there, but you've provided a</p>
<p style="text-align: right;">Page 1116</p> <p>1 from the ball, that I rotate that ball, I push that with 2 the ball." That's the idea we're seeing here for 3 inputting the 6 degrees of freedom. We're not seeing 4 the idea that, "Gee, I could come down here and type a 5 number in; and that number is the position I want to be 6 in next." That's not the idea. 7 Q. Okay. Thank you. 8 Could you just briefly describe this next 9 embodiment in Mr. Armstrong's 1996 application? 10 A. Sure. Here again, he's showing that the 11 trackball-type device with the Ball 12 can be mounted on 12 a keyboard. And again he's explaining how it might be 13 an enhancement to a known keyboard. This is a standard 14 personal computer keyboard. 15 And this, I think, gives us a better 16 understanding of why these buttons are not involved with 17 an input member because that's something that's been 18 known for a long time. The invention is not typing 19 numbers in from a keyboard. The invention is the idea 20 of this -- this particular idea being expressed here in 21 this application is that ball and how you can use it to 22 input positional and angular information. 23 Q. So, then, are these drawings that we're looking at, 24 these different things, just different applications of 25 Mr. Armstrong's one input, 6-degree-of-freedom idea?</p>	<p style="text-align: right;">Page 1118</p> <p>1 different way of holding onto that ball. And, again, 2 you get a full 6 degrees of freedom because you can lift 3 the handle up and down, push it back and forth, pull it 4 side to side, and then tip it and in which way around 5 it's -- 6 Q. So, then -- 7 A. -- it's in the vertical position. 8 Q. So, then, are you, then, saying that that first 9 figure we looked at with those axes of 6 degrees of 10 freedom, even though that handle looks like it might 11 just go to the left and right and forward and backwards, 12 it actually does much more than that? 13 A. Yes. It actually moves in all of the 6 degrees of 14 freedom shown for the Ball 12 in the initial picture. 15 It's just that you can't rotate it as far because if we 16 try to turn that handle, we can only really turn it some 17 amount of angles from vertical before we run into the -- 18 our hand will hit the top of the container. 19 Q. Okay. And, again, this embodiment is in the jury 20 notebook at page 29. 21 Now, all of these embodiments we've seen so 22 far, does every one of them enable somebody who's using 23 it to hold it with a single hand and then operate it in 24 a full 6 degrees of freedom regardless if it's a handle 25 on a ball or the ball.</p>

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<p>Page 1119</p> <p>1 A. Yes. You can operate any one of these embodiments 2 we've seen, or variations, with one hand; and your hand 3 is moving relative to -- and so is that single member 4 you're holding -- moving relative to the rest of the 5 pointing device, to the housing of the -- 6 Q. So, then -- 7 A. -- device. 8 Q. -- at this stage does the application indicate to 9 you that it's an idea that relates to a one-handed 10 operation device? 11 A. Right. We've seen a device that operates with one 12 hand and lets you put in a full 6 degrees of freedom 13 with that one hand. 14 Q. Okay. And that's exactly what the patent 15 application is telling us, too, right? 16 A. Right. 17 Q. Okay. And just to clarify, the figures are in the 18 jury notebook at page 64. The text is at page 29, 19 right? 20 A. Thank you. That's correct. 21 Q. Now, here's another one. Could you tell the jury 22 what that one is? 23 A. Yes. This is another variation or embodiment of 24 the invention. This one uses a different design. We'll 25 now see it looks more like a hockey puck maybe, a small</p> <p>Page 1120</p> <p>1 round, cylindrical object. And here it's called a 2 6-degree-of-freedom handle. And this is just showing 3 how it would replace or mount in a keyboard the same way 4 that the little ball-based 6-degree-of-freedom input 5 device did. This one is made with a different design 6 internally or a different way of building it, which 7 we'll look at in detail. 8 Q. I'm glad you mentioned that. I mean, Mr. Armstrong 9 disclosed many different ways to make -- did 10 Mr. Armstrong disclose many different ways to make this 11 particular one-hand 6-degree-of-freedom device in this 12 application that he refers to as the "warehouse 13 application"? 14 A. Yes. In his application he describes a lot of ways 15 of building this single input 6-degree-of-freedom 16 device, one with a ball and the sliding plates we saw. 17 We're going to see another variation here where all of 18 the sensors are activated by this kind of cylindrical 19 handle we hold. And we'll see a lot of variations in 20 how it's built internally, the internal parts of this. 21 Q. So, Mr. Armstrong then disclosed -- the application 22 is very thick, isn't it? 23 A. Yes. 24 Q. It's got a lot of stuff in it. 25 A. Yes.</p>	<p>Page 1121</p> <p>1 Q. And in your view, all the stuff in it, does it 2 relate -- regardless of how many pieces and how many 3 figures are disclosed, do all of the things in it relate 4 to building one of these things -- regardless of whether 5 it's in a keyboard or a remote control or anything, 6 building one thing that has 6 degrees of freedom that 7 you can hold with one hand? 8 A. Yes. But I'm going to make -- because I've read 9 every picture in here -- 10 Q. Please do. 11 A. And just to make it very clear, there are other 12 pictures and other sections in the application which 13 deal with some other ideas that are not related really 14 to this litigation at all. There are some ideas in 15 there for the internal structure of a pressure-sensing 16 switch and a couple of things like that that are not in 17 the claims of the invention at all and are not really 18 related to what we're talking about here. 19 So, we're not going to show those pictures 20 because they're an entirely different technology that's 21 not really involved in the things we're talking about 22 here. 23 Q. Okay. Now, in those other things that you're 24 talking about that you're not going to show the jury, 25 did any of them have in them a 6-degree-of-freedom</p> <p>Page 1122</p> <p>1 controller where it split the 6 degrees of freedom 2 between more than one handheld element? 3 A. No. No. And they are not at all related to this. 4 I'm saying they're very detailed designs for the inside 5 of a switch, for instance, things that aren't in here at 6 all. 7 Q. So, just to be clear, is there any disclosure 8 anywhere in the 1996 application of a 9 6-degree-of-freedom device where the 6 degrees of 10 freedom are split beyond having just input member? 11 A. No. The only disclosure is a single handle, a 12 single input member. 13 Q. Okay. Could you describe to the jury this one? 14 And I believe you also have an animation for this one. 15 But could you quickly just describe what the figure is 16 showing? It's a little bit of a strange format. 17 A. Sure. Let me take a minute to explain this drawing 18 and how -- talk about it a little bit just to get us 19 orientated. 20 This is the handle (indicating), the same 21 handle design. It's got a slightly different number 22 because there's two variations of that handle. This one 23 is 300. It is attached to a stock. And these parts 24 that are shown here (indicating), this is what's called 25 an "exploded drawing." It's as if you took the physical</p>
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<p style="text-align: right;">Page 1123</p> <p>1 object apart and just sort of lifted up the pieces and 2 they're floating in the air. The drawing shows each of 3 the pieces as if this thing was taken apart. So, it's 4 put -- 5 Q. Let me ask you, then: It's kind of like an 6 assembly drawing where it's showing you how the pieces 7 fit together? 8 A. Right. And this was kind of complicated; so, I 9 would hope I didn't get a set of directions like that 10 with something I bought at the store. So, the arrows 11 are showing how these pieces go together vertically. 12 This is a vertical exploded diagram. These pieces are 13 just as if you'd pulled it apart vertically. 14 Q. Okay. 15 A. And you're seeing each of the pieces here lined up 16 in this figure. It is in your jury notebook at page 72. 17 And it shows a lot of the pieces, and that's so he can 18 explain how this works. In other words, for an engineer 19 looking at this, how does that thing come together and 20 work. And we'll see an animation of it and talk more 21 about how those pieces actually work together to make 22 this thing operate. 23 Q. Okay. Again, though, before we do that, is there a 24 single hand-operable element here that's movable in 6 25 degrees of freedom?</p>	<p style="text-align: right;">Page 1125</p> <p>1 A. Right. We're going to use those kind of terms a 2 lot. An embodiment, again, is an example; and this is 3 an animation that shows how those pieces come together 4 and how that idea works. 5 Q. And how it actually moves in 6 degrees of 6 freedom -- 7 A. Right. 8 Q. -- and operates the various sensors? 9 Okay. Could we run that animation, please? 10 A. First, it's coming together. And then we'll see 11 how it moves once it's put together. Back and forth, 12 you can see the handle slides relative to the things; 13 and you'll see underneath some of these parts moving and 14 changing. And that's how it works. See? As you pull 15 it up and down, it activates that little sensor in there 16 as it goes up and down. 17 The turning part comes from the top. The 18 very top of that handle rocks back and forth relative to 19 the bottom so you can enter it -- and you can twist it 20 to get the yaw. 21 MR. PRESTA: Could we just run that one more 22 time, please? 23 A. Yeah. Let's look at that again. That's a little 24 hard to get in one viewing. 25 Back and forth, side to side, and up and</p>
<p style="text-align: right;">Page 1124</p> <p>1 A. Yes, there is. And let me just give a little more 2 background on it. There is the handle (indicating) that 3 you operate with your hand. 317 is the top of the 4 housing or the case. So, all the parts under 317 are 5 inside of the keyboard or inside of the input device. 6 All of these parts that we see down here (indicating), 7 when they are assembled, are not in view of the person 8 that's holding the handle. They are inside. 9 Q. Okay. So, you can't touch any of the parts under 10 this Item 317 -- you can't actually touch with your hand 11 any of those parts when it's put together? 12 A. No, not when it's assembled in the case. 13 Q. So, just this one handle sticks out above the case 14 kind of like those keyboard examples that we saw 15 earlier? 16 A. Right. In that keyboard example we saw the 17 little -- it looks like that "hockey puck" shape, I call 18 it, sticking out of the top and underneath that -- 19 that's the top surface of the keyboard (indicating). 20 Q. Okay. Thank you. 21 Did you prepare some type of an animation to 22 help the jury understand this embodiment? 23 A. Yes. 24 Q. And when I say "embodiment," I mean this example of 25 Mr. Armstrong's application.</p>	<p style="text-align: right;">Page 1126</p> <p>1 down. And then here, the tipping. And finally, yaw. 2 BY MR. PRESTA: 3 Q. Okay. So, is that thing right there what you 4 described earlier as a single handle that can be movable 5 in all 6 degrees of freedom? 6 A. Yes. That's the handle or the input member that 7 you grasp in your hand and move in all 6 degrees of 8 freedom. 9 Q. Okay. Now, Mr. Cawley had pointed out 10 Mr. Armstrong said, "Well, there's these other buttons 11 here; so, that's not one element moving 6 degrees of 12 freedom. There's three there. That supports a 13 three-element 6-degree-of-freedom device." Do you agree 14 with that? 15 A. No. No. Those buttons are buttons the same way we 16 have buttons on a mouse. And if you think about your 17 mouse, your mouse moves on a table in two axes; but the 18 buttons don't have anything to do with the motion. The 19 buttons are just a way to enter information into your 20 computer. And those buttons are moving around, but we 21 don't consider that the motion of the buttons has 22 anything to do with the motion of a mouse. And the same 23 way here. There are a couple of buttons shown that 24 actually, just like a mouse button, you might grasp them 25 with your fingers while you're using this device if you</p>

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<p style="text-align: right;">Page 1127</p> <p>1 want to click on something on the screen. 2 Q. Thank you. 3 Again, there's a few more figures. 4 Obviously, there's a lot of figures in this application. 5 Could you tell the jury what this next one is and -- 6 A. Sure. This is another picture describing a 7 variation of the controller we just looked at. Again, 8 there is the handle, the single input member, 300. In 9 this case it's been shown that it could be a little bit 10 bigger and inside of there could be a motor to give 11 vibration. It still has the same general structure. 12 Here, 317, this thing here (indicating) shown with the 13 little diagonal lines, this is the top or the outside 14 surface. 15 Again, this is a kind of a drawing that 16 you're probably familiar with, people who are involved 17 with engineering; but what we're looking at here is 18 what's called a "section" or a "cross-view." This is 19 looking into this device kind of like we've cut through 20 it and we're holding it up and looking through it, like 21 a section through it. So, we're not looking down from 22 above or from an angle; but we're kind of looking right 23 into it. 24 So, now when we see this kind of hash line, 25 that means we're looking at the edge of something that's</p>	<p style="text-align: right;">Page 1129</p> <p>1 as one of his ball -- trackball embodiments. And then 2 there's the joystick-type which just has the handle and 3 no ball. 4 Q. Okay. Let me take you to the next one. Actually, 5 did you have an animation for this one so the jury could 6 understand how it works? 7 A. Yes. 8 MR. PRESTA: Could we just run -- 9 A. Well, again this is just a different view. Now 10 we're getting closer to that view inside, looking at it 11 from inside instead of from above. And here we can see 12 how the internal mechanism activates the sensors below 13 when it's moved back and forth. 14 The motion of the handle causes those sensors 15 to move inside and to be activated and to generate 16 signals. 17 BY MR. PRESTA: 18 Q. Okay. Now, that whole -- the whole item's moving 19 forward now. That's just to look at the inside, right? 20 A. Right. 21 Q. But that would normally be stationary. Now we'd be 22 looking inside it? 23 A. Right. This animation -- first we see it from the 24 outside to see what handle motion is happening. Then we 25 come down. We fly inside to see how the internal parts</p>
<p style="text-align: right;">Page 1128</p> <p>1 been cut. 2 Q. Okay. 3 A. So, that would be like the top surface of a 4 keyboard. Imagine we've sawed through it and now we can 5 see all of these parts that are inside that are 6 underneath the top of it. The user's hand is out here 7 (indicating), holding onto that ball and moving it. 8 Q. Does this also show a single input member -- a 9 single handheld input member that is movable in 10 6 degrees of freedom? 11 A. Yes, it does. And the text, as we can see again at 12 page 13 in the application -- or in your juror notebook, 13 sorry -- 14 Q. Okay. 15 A. -- is a 6-degree-of-freedom joystick-type 16 embodiment. And this is one of the figures describing 17 them. There's quite a few of them. 18 Q. So, because he had trackball-type embodiments and 19 he had joystick-type embodiments. 20 A. Right. We've seen the trackball-type; that is, the 21 ball. Now we're on the joystick-type. And I don't want 22 to confuse the joystick-type with the handle on the ball 23 because that's kind of -- we might call that two ways. 24 We might say, "Well, that's got a handle; so, it's a 25 joystick." But it's got a ball. So, he's treating it</p>	<p style="text-align: right;">Page 1130</p> <p>1 are actually working in Mr. Armstrong's idea. 2 Q. And, again, is that a single handle that's moving 3 in 6 degrees of freedom? It could actually move in 6 4 degrees of freedom, right? 5 A. That's correct. That handle can move back and 6 forward, side to side, up and down, and then be twisted 7 or rocked in any angular sense at the very top. 8 Q. Okay. Now, these buttons we see again, do those 9 buttons in any way operate any of these sensors that 10 allow it to be going in 6 degrees of freedom? 11 A. No, they don't. 12 Q. Okay. So, these are actually sensors? 13 A. These are -- these little elements here are the 14 sensors that are being activated. 15 Q. And the idea is so they can sense when your single 16 hand moves in any one of those 6 degrees of freedom, 17 there is a sensor for each way, right? 18 A. That's correct, yes. 19 Q. Okay. Thank you. Again, this looks like a 20 previous one. I don't want to spend too much time if 21 there's nothing new that you think the jury can get from 22 it, but this is another one. 23 A. Yeah. I'll just kind of give a quick overview of 24 this one. Again, the handle, single input element, a 25 different design inside the handle, the way the rocking</p>

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<p style="text-align: right;">Page 1131</p> <p>1 switches are mounted. And down below, also there is 2 some different design. There is no rocker. There is a 3 piece here (indicating), kind of like a cam-shaped 4 piece. It's a different way of building the idea. 5 In other words, the fundamental idea here is 6 a single handle that's movable in 6 degrees of freedom; 7 and inside we're seeing different ways to actually make 8 that -- mechanically to make that happen; in other 9 words, the different levers and cams that make that idea 10 possible. 11 Q. Is it fair to say that the reason the invention is 12 so thick and has so much stuff, anytime -- I'm sorry. 13 Not the invention. Let me strike that. 14 The reason the 1996 application, with all of 15 Mr. Armstrong's ideas in it, is so thick is because he 16 showed so many different ways to build a single handle 17 6-degree-of-freedom device? 18 A. That's correct. There are a lot of different 19 designs shown on how you could implement it internally. 20 Q. But what's the common theme of every one of those 21 things? 22 A. They all have a single handle that you can move in 23 every direction and twist from left to right, forward 24 and backward. They have a single 6-degree-of-freedom 25 input element.</p>	<p style="text-align: right;">Page 1133</p> <p>1 he also talked about Figure 20 where we had what we've 2 just animated and showed you in that exploded view. 3 And what did Mr. Armstrong testify about 4 every one of those figures? 5 A. Well, he said: In every one of these embodiments, 6 there is a single input member operable in 6 degrees of 7 freedom? 8 He said: Yep. 9 Q. And that's true, right? 10 A. Yes. 11 Q. You understand that, right? 12 A. Yes. 13 Q. Is there no debate about that in your mind? 14 A. There is no debate about that. 15 Q. Okay. Now, Mr. Cawley pointed again to these 16 little buttons on the side (indicating) and got 17 Mr. Armstrong to testify that those were additional 18 inputs. Could you again explain why that's correct? 19 A. Well, they are not additional inputs that are 20 related to motion or the 6 degrees of freedom or 21 describe anything other than motion from a single 22 handle. They are just buttons, and the idea of button 23 has been known from way before this. They are just 24 buttons like the buttons on a mouse. 25 Q. So, Mr. Armstrong's testimony is a hundred percent</p>
<p style="text-align: right;">Page 1132</p> <p>1 Q. Okay. Now here's another one, and I don't want to 2 spend that much time on it. This is another example, 3 isn't it? 4 A. It's just another variation. This one is more 5 compact. More of the sensing mechanism is in the 6 handle, less inside the case. That's just again a 7 slightly different way of building that same 8 functionality. 9 Q. Okay. So, again, the reason there's so much text 10 in the application and so many figures is because he's 11 showing all different kinds of ways in which he could 12 build this single-handle 6-degree-of-freedom device, 13 correct? 14 A. That's correct. 15 Q. Thank you. 16 Now, did you hear Mr. Armstrong's testimony 17 in this trial? 18 A. Yes, I did. 19 Q. And, in fact, when Mr. Gunther was cross-examining 20 Mr. Armstrong, did you hear this part of his testimony? 21 A. Yes, I did. 22 Q. Okay. And the testimony was relating to Figure 4 23 with the collet around it. It talks about maybe 6 as 24 well, which are really generally the same; also 25 Figure 9, where we had these buttons and this ball. And</p>	<p style="text-align: right;">Page 1134</p> <p>1 accurate, right? 2 A. His testimony there was correct, yes. 3 Q. But do you agree with Mr. Cawley's then later 4 representation about those? 5 A. No. 6 Q. Okay. Now, again, in fact, this is -- did you hear 7 Mr. Cawley's questioning of Mr. Armstrong? 8 A. Yes, I did. 9 Q. Okay. And he says: Okay. Now, what are those 10 things that we now can see much larger that are marked 11 376? 12 Do you see that? 13 A. Yes. 14 Q. And Mr. Armstrong said: Those are additional input 15 members. 16 Do you see that? 17 A. Yes. 18 Q. And then the answer again was: They're buttons on 19 the handle. They are additional input members. 20 See that? 21 A. I see what he said, yes. 22 Q. And then Mr. Cawley said: And did you actually 23 describe to the Patent Office in the text of your patent 24 those additional input members? 25 And Mr. Armstrong said: Yes, I did.</p>

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<p>Page 1151</p> <p>1 Q. As you just explained. 2 Okay. And this is in the jury notebook. 3 Again, at page 3 is where the application starts. Could 4 you tell the jury what this is telling us? 5 A. Sure. The first section that's normally included 6 in this type of thing, just to get us a little 7 orientation, is what's called an "abstract of the 8 disclosure." And that's kind of a fancy way of saying 9 "summary." And the idea here is you put kind of a 10 summary of your idea in a paragraph so the people that 11 are looking at the final patent can get a quick idea of 12 what it's about. It's not necessarily all of the 13 detail, but it gives just a quick idea. 14 Q. Okay. And what does it tell you? 15 A. Well, it explains here that we have a multiple-axes 16 controller comprised of a single input member operable 17 in 6 degrees of freedom relative to a reference member. 18 That's the housing. And it says the input member can be 19 of a continuously rotatable trackball-type or a limited 20 rotation joystick-type. 21 And there again he's sort of given the 22 overview that one of them is a trackball that you can 23 roll around as much as you want, and the other one is 24 like a joystick. It has some limited range of motion in 25 each of those degrees of freedom.</p> <p>Page 1152</p> <p>1 Q. Are those words consistent with what you saw in all 2 the figures? 3 A. Yes, they are. 4 Q. And what are the words, then, telling you? 5 A. Well, it tells us what the idea is; that is, the -- 6 the idea is a single input member that you can operate 7 in 6 degrees of freedom; and it is explained that there 8 can be a couple of types of it, one that's built with a 9 ball and another one that is some joystick-type thing. 10 Q. Okay. And I'm going to turn now to page -- it 11 looks like it's written page 7. I note that there's two 12 different page numbers. Because you're understanding 13 that this came out of the Patent Office records, of the 14 U.S. Patent and Trademark Office? 15 A. Yes, that's correct. 16 Q. This is part of what's called the Patent Office 17 "file history"? 18 A. That's correct. 19 Q. You understand that? 20 And there's different page numbers that some 21 patent examiner maybe or the applicant put on there but 22 they've also been numbered in the jury notebook in the 23 bottom right-hand corner and this particular page is 24 page 9. So, I just don't want there to be any confusion 25 that there are multiple page numbers. They existed at</p>	<p>Page 1153</p> <p>1 the Patent Office and the court renumbered them in the 2 jury notebook and this is page 9. 3 You agree with that, right? 4 A. Yeah, I agree with that. 5 Q. Okay. Thank you. 6 So, this next page states the summary of the 7 invention -- in a section titled "Summary of the 8 Invention." Can you tell the jury what this is 9 describing? 10 A. Well, the next step in one of these specifications 11 or disclosures is usually a section which is called 12 "Summary of the Invention" which describes again what 13 the invention is, now in a little more detail than the 14 abstract. 15 Q. Okay. 16 A. And here -- 17 Q. Now, you understand, of course, that claims define 18 an invention, right? 19 A. Absolutely. The claims define the invention. They 20 define the scope. I think we saw in a video in the 21 beginning that they are like a fence around the edge and 22 says exactly where the boundary is but -- 23 Q. And a patent application could have many ideas in 24 it, right? 25 A. Absolutely.</p> <p>Page 1154</p> <p>1 Q. Okay. 2 A. And they usually do. 3 Q. Okay. And many times those ideas are summarized in 4 the section of the application called "Summary," right? 5 A. Right. 6 Q. Okay. Could you go ahead and tell me what the 7 summary is telling us? 8 A. Well, it starts off -- in this section I've 9 highlighted about how it's -- (reading) the 10 controllers -- that's what he's talking about -- provide 11 structuring for 6 degrees of freedom physical input by 12 the hand on a hand-operable single input member. 13 So, he's saying, "I'm making a 14 6-degree-of-freedom single input member device." 15 Q. Okay. Now, here's another little bit of -- another 16 text that you wanted me to blow up. 17 A. Right. 18 Q. Can you tell me what this is saying? 19 A. Well, here he's explaining that the input member 20 can be a trackball or the input member can be any handle 21 fit to be manipulated by a human hand, such as a 22 joystick-type handle. But in either case -- no matter 23 what, in either case, the input member accepts 6 degrees 24 of freedom of hand input relative to the case. 25 Q. Okay. So, if I understand you, then, regardless if</p>
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<p style="text-align: right;">Page 1167</p> <p>1 have invented these ideas. I'm separating my ideas that 2 I'm claiming from the earlier ideas; and I'm not trying 3 to claim the ideas, for instance, that Mr. Chang 4 invented." 5 Q. Okay. So, now I want to ask you -- now you've 6 looked at the words and you've looked at the figures and 7 you've looked at the entire 1996 application, right? 8 A. That's correct. 9 Q. Or you have personally. 10 A. Yes, I have. 11 Q. We haven't had a chance to look at every single 12 piece of it. But do you believe that you have now -- in 13 your review did you come to a conclusion as to somebody 14 skilled in the art, what they would understand 15 Mr. Armstrong's idea was in that 1996 application -- or 16 ideas, plural -- when he filed it in 1996? 17 A. Yes. 18 Q. And what is that? 19 A. Well, I think there's a couple of key things. One, 20 that there is a single input member movable in 6 degrees 21 of freedom and that it moves relative to the housing and 22 that it's not a multiple input member device. 23 Q. Okay. So, that's the scope of the 1996 application 24 of what his invention is. 25 And did you also understand what -- did he</p>	<p style="text-align: right;">Page 1169</p> <p>1 Q. Okay. And before we do that, I had noticed 2 something -- and I want to ask you about it -- in the 3 specification of the 1996. So, I don't want to confuse 4 you. We're going to come and we're going to start the 5 scope of 2002. 6 MR. PRESTA: But I'd just like Kam, please, 7 if she would just put up a part of the specification 8 that we didn't show and I want to ask you if you would 9 describe what it means to the jury. And this is on 10 page -- because we're pulling it up live, I don't have 11 the -- page 13 of the jury notebook. 12 BY MR. PRESTA: 13 Q. And I would like to ask you to describe what this 14 paragraph is getting at in the application before we 15 move on because I want to see if it affects your 16 opinions. 17 A. Sure. 18 THE COURT: And just for the record, you're 19 talking about the original application, right? 20 MR. PRESTA: Yes, your Honor. 21 BY MR. PRESTA: 22 Q. We went back to the 1996 application. We're 23 getting ready to start an analysis of the 2002 claims, 24 but I'm going back to the 1996 application. I just -- 25 there's one more thing I forgot to have you look at.</p>
<p style="text-align: right;">Page 1168</p> <p>1 clearly indicate what his invention was not? 2 A. Right. He disclaimed the ideas of Chang; that is, 3 the ideas of having multiple input members. He says 4 that what Chang has is deficient and it's not what he's 5 doing. 6 Q. Okay. So, then -- thank you. 7 Now -- so, you now have just described what 8 you believe the 1996 -- the scope of that application is 9 of Mr. Armstrong's. Now there's something else -- 10 another process that you undertook. Could you tell the 11 jury what the next step in your analysis was? 12 A. Right. Well, first, we have to understand the 13 scope of the invention. And I'll make it clear that 14 it's the scope of the invention that's relevant to the 15 issues here. There may be other things that are not 16 related to us that are in that patent that are not 17 something we're going to talk about at all. 18 But the next step, once we understand in our 19 minds what the idea was that that inventor had, then we 20 want to look at the actual claims in this case and we 21 want to look at those claims that have been asserted and 22 we want to look and see is there support back in that 23 application, can we find information that shows us that 24 Mr. Armstrong had the idea as described by the claim 25 back in 1996.</p>	<p style="text-align: right;">Page 1170</p> <p>1 A. Sure. Let me take a second to dig into this text a 2 little bit and explain it. 3 Again, people that are writing patent 4 applications, you want to make a clear description. So, 5 in this section Mr. Armstrong is writing about how he's 6 going to use these terms. He's saying, "I'm going to 7 define the words or the terms 'joystick-type controller' 8 and 'trackball-type controller.'" And he's saying the 9 term "joystick-type controller" -- they both represent 10 two kinds of hand-operated input devices which both have 11 a hand-operable input member which is operated relative 12 to a reference member. 13 And the difference in the two controllers is 14 as follows: For a joystick-type controller, the handle 15 can be moved or operated in up to 6 degrees of freedom; 16 but, he's saying -- this is important -- the freedom of 17 the input member is only to go with a limited range. 18 So, what he's saying is that I can't 19 necessarily rotate that joystick all the way around in 20 pitch or yaw because the joystick handle hits the 21 surface, as opposed to a trackball. The input member of 22 a trackball-type device, since it's spherical, has an 23 unlimited amount of travel in rotation. 24 So, he's really explaining that if you make a 25 trackball and you want to input the angle of, you know,</p>

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<p style="text-align: right;">Page 1171</p> <p>1 roll or pitch, you can roll that thing as much as you 2 want. But if you have a joystick, you have a limitation 3 in the amount you can get in the angular directions 4 because you cannot tip the handle that far without it 5 running into mechanically the surface. 6 Q. Okay. And the very last sentence there, it covers 7 Figures 1 through 10 and 13 through 36, which -- the 8 figures that you put up, that covers all the figures 9 that you put up, right? 10 A. Right. 11 Q. Okay. And what is that last sentence telling us? 12 A. Well, it says a 6-degree-of-freedom trackball 13 embodiment is in the first set of pictures -- we saw 14 those -- and the 6-degree-of-freedom joystick-type 15 embodiments or examples are illustrated in the second 16 set of pictures, 13 to 36; and those are the ones we've 17 looked at. 18 Q. Okay. And you took that statement into account 19 when you formulated your opinion about the scope of the 20 1996 application? 21 A. Yes, I did. 22 Q. Okay. And, again, your opinion is as you stated it 23 to the jury? 24 A. Yes. 25 Q. Okay.</p>	<p style="text-align: right;">Page 1173</p> <p>1 back in 1996? 2 Q. Okay. So -- 3 A. So, we're going to take a claim at a time and now 4 go back -- now that we're a little bit familiar with the 5 specification -- then go back and see if we can find 6 support for it. 7 Q. Okay. So, this is the second step in the process, 8 right? 9 A. Right, second step. 10 Q. Okay. Now, we talk about independent claims 14, 11 16, and 19. Do you understand why we only need to look 12 at those three instead of also claims 22 and 23 that are 13 dependent? 14 A. Yes. The reason is a dependent claim includes the 15 independent claim it came from. To save space in 16 writing out these things, I guess, it is kind of a 17 tradition or part of the law that you can write one 18 claim; and then you can say another claim which adds 19 something to the first one. So, it would be claim 19 20 but something else. 21 So, if there is no support for the 22 independent claim 19 in the original application, there 23 can't be support for the other parts which include 19 as 24 part of their requirements. 25 Q. So, we're lucky, then, that that simplified our</p>
<p style="text-align: right;">Page 1172</p> <p>1 MR. PRESTA: Now if I could go back to the -- 2 BY MR. PRESTA: 3 Q. Now I'd like to move away from the 1996 application 4 and move to a new topic. Okay? And the topic that I'd 5 like to ask you questions about has to do now with the 6 scope of the claims that Mr. Armstrong filed in 2002. 7 Do you understand that? 8 A. Yes. 9 Q. Okay. And you undertook a study of the scope of 10 those claims of 2002? 11 A. Yes, I did. 12 Q. Okay. And why are we doing this again? Just to 13 make sure the jury is following why you and I are going 14 through this process. 15 A. Okay. Well, the claims we're going to talk about 16 here are the claims that are at issue in this case. 17 We're going to go through the claims that have been 18 asserted, the particular claims that Nintendo has been 19 accused of infringing; and we're going to ask the 20 question for each of those claims and the invention it 21 describes, can we find support for that back in the 22 original application. 23 If we go back for each claim and look, can we 24 find the elements of that claim, the full description of 25 them of what that means -- can we find support for that</p>	<p style="text-align: right;">Page 1174</p> <p>1 process a little bit, right? 2 A. Right. For a written description analysis, it 3 simplifies the work we have to do a little bit. 4 Q. Right, because we don't have to look at all five of 5 the asserted claims; you can just look at these three. 6 A. Right. We don't have to look at the independent 7 claims. 8 Q. Okay. Now, I'm going to ask you first to look at 9 claim 19. Now, obviously claim 19 has a lot of words in 10 it. Very difficult to just sit here and look at it and 11 understand exactly what it means. 12 Have you undertaken a process of trying to 13 find a way to help the jury understand what this 14 claim -- what this -- oh, I see I have a -- let's 15 clarify something first. I have a very bad title on 16 this, in fact. This could be extremely confusing 17 because the title has a typographical error. 18 A. Let's fix that title. 19 Q. Let's fix that so there is no confusion. 20 THE COURT: You read my mind. 21 MR. PRESTA: Try to. 22 BY MR. PRESTA: 23 Q. Okay. Now, this is the claim that was issued from 24 the patent application that was filed in the year 2000 25 that was actually added by Mr. Armstrong in 2002. You</p>

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<p style="text-align: right;">Page 1187</p> <p>1 Q. Okay. Now, how about this other one, quickly, in 2 1996? Did that one help -- did that one provide the 3 three-input 6-degree-of-freedom or not? 4 A. No, it does not. It doesn't provide three separate 5 input elements. It only has a single handle, a single 6 input element. 7 Q. Okay. And, again, when you compare it back to the 8 text -- this is just a brief summary of the text. Does 9 any of the text describe this invention -- does any of 10 the text from 1996, in Mr. Armstrong's 1996 application, 11 describe the claim that he filed in 2002? 12 A. No. I would use the term "support" maybe. 13 Q. Okay. Thank you. 14 A. In that in every instance he says there is a single 15 input member, but here this claim scope includes three. 16 And, so, there's nothing that indicates that he had the 17 idea of having three input members back here in '96 18 where every time he talks about it he says there is a 19 single input member. 20 Q. Okay. And what about Chang? Does Chang help you 21 understand what -- what he said about Chang -- whether, 22 in fact, this 2002 claim 19 was part of his idea of what 23 he considered to be the new thing he was filing his 24 patent on back in 1996? 25 A. Well, again let's look at Chang. If you recall,</p>	<p style="text-align: right;">Page 1189</p> <p>1 Q. Okay. Is there any support for even having three 2 elements that together combine to provide 6 degrees of 3 freedom of control in his 1996 application? 4 A. No, not with independent handles and elements. 5 Q. But they are asserting that claim 19 is actually 6 that broad -- Anascape is -- aren't they? 7 A. That's correct. 8 Q. In fact, in order to prove infringement against 9 Nintendo, they need to say it's that broad, don't they? 10 A. That's correct. 11 Q. Now, just to further emphasize, for example, this 12 embodiment of Figure 20, I'd like to ask you 13 specifically if we can find support in this embodiment 14 for the scope of claim 19. And I'd ask you what this 15 illustration is showing that you helped create. 16 A. Okay. Well, the first thing is that within this 17 disclosure -- not in this particular drawing but in one 18 of the drawings associated with it -- it is shown that, 19 in fact, this handle (indicating) rocks back and forth, 20 that it can tip forward and backward and side to side 21 and it has the unidirectional sensors and there is a 22 description of that type of four unidirectional sensors 23 that can be rotated with a platform, that rotates on 24 them and activates them. And, so, that element is 25 present inside the handle.</p>
<p style="text-align: right;">Page 1188</p> <p>1 Chang has three separate elements. And interestingly, 2 there are three elements here. They don't exactly meet 3 the requirements; but there's three elements at least, 4 three separate elements. And he says that the Chang 5 controller doesn't have a single input member; so, it's 6 deficient. It's not good, and it's a problem because it 7 lacks a hand-operable single input member. So, in fact, 8 when he says what his invention is not, he points to 9 three separate input members, which is exactly what we 10 have in the claim scope that's asserted here. 11 Q. So, these statements about Chang that Mr. Armstrong 12 is saying in 1996 are bad and don't do it and it's not 13 my invention, do those statements also apply to this 14 claim that he filed in 2002? 15 A. Right. The same logic that he says that there's 16 three separate elements back in 1996 and that's a bad 17 thing, that's not my idea, are present now in claim 19. 18 Q. Okay. Now, based on that, do you have an opinion 19 on whether, as somebody skilled in this area of 20 technology as you are, in reading the 1996 application 21 as a whole, that it supports this claim 19 that he later 22 filed in 2002? 23 A. No. There's no support in the 1996 application for 24 the full scope of claim 19 or claim 19 as it's been 25 asserted in this case.</p>	<p style="text-align: right;">Page 1190</p> <p>1 Q. So, that particular piece of claim 19 is found in 2 the Figure 20. Is that what you're telling me? 3 A. That's correct. 4 Q. Okay. And, also, what about -- is there a motor as 5 Mr. Armstrong described, that you can have a vibration 6 feature in his single handle? 7 A. Yes. I think we saw another picture again showing 8 one of the variations of this design where the cap -- it 9 was kind of a rounded top, and inside there was room for 10 a motor for vibration. 11 Q. So, Mr. Armstrong -- 12 A. So, that element also has been disclosed in a way 13 that Mr. Armstrong clearly had the idea of putting that 14 motor in the handle. 15 Q. So, again, the motor is actually something he did 16 describe in 1996, right? 17 A. That's correct. 18 Q. Okay. Now, he also -- his 1996 also supports these 19 on/off buttons, doesn't it? 20 A. That's correct. As we've talked about, there's two 21 little buttons shown here on the edge that you could put 22 your fingers over this hockey puck and squeeze on and 23 those buttons -- since the claim asks for more than one 24 button and two buttons certainly is more than one, those 25 two buttons there meet that claim limitation; so, that</p>

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<p style="text-align: right;">Page 1191</p> <p>1 part of it is present.</p> <p>2 Q. So, so far, so good.</p> <p>3 A. There's support for those three elements of the</p> <p>4 claim.</p> <p>5 Q. Okay. Now, where's the support in this figure for</p> <p>6 this other input member that you could control in two</p> <p>7 axes and a third input member that you could control in</p> <p>8 two axes? Is that present in Figure 20?</p> <p>9 A. No. Because there is no other element that you can</p> <p>10 hold onto to move to do that. There is just no other</p> <p>11 element.</p> <p>12 Q. In fact, Mr. Armstrong said that that would be a</p> <p>13 bad idea to do that in 1996 when he criticized Chang,</p> <p>14 didn't he?</p> <p>15 A. That's correct. He said it was a bad idea.</p> <p>16 Q. So, there is no -- so, what we're looking for is</p> <p>17 scope of the full -- of the invention of claim 19, the</p> <p>18 entire thing, right? That's the test.</p> <p>19 A. Right. It all has to be there. We need support to</p> <p>20 show that Mr. Armstrong had the idea that he's now</p> <p>21 asserting is the scope of this claim back in 1996.</p> <p>22 Q. Okay. And what is your conclusion with respect to</p> <p>23 at least this figure about whether there's support?</p> <p>24 A. Well, the test for support is the entire -- my</p> <p>25 understanding is the entire application. And there is</p>	<p style="text-align: right;">Page 1193</p> <p>1 1996 application?</p> <p>2 A. Well, it certainly does. It's a contradiction of</p> <p>3 what he's saying is the benefit or the value or even the</p> <p>4 objective of his invention.</p> <p>5 Q. Okay. So, now we're back to claim 19; and I just</p> <p>6 want to be very careful here, Mr. Dezmelyk, because we</p> <p>7 may -- you made this illustration of claim 19 but the</p> <p>8 real test, of course, is -- as I believe you know and I</p> <p>9 want you to understand is the test -- is that it's</p> <p>10 really claim 19, the words.</p> <p>11 And I'm going to ask you now: Do you have an</p> <p>12 opinion as to whether claim 19 as described, the full</p> <p>13 scope of that claim, that claim that's being asserted</p> <p>14 against Nintendo in this case, of whether that claim is</p> <p>15 supported back in the 1996 application?</p> <p>16 A. Claim 19 is not supported back in the 1996</p> <p>17 application.</p> <p>18 Q. Okay.</p> <p>19 THE COURT: All right. Counsel, we're going</p> <p>20 to go ahead and take a break.</p> <p>21 Ladies and gentlemen, I'll ask you to be back</p> <p>22 at 11:30.</p> <p>23 (The jury exits the courtroom, 11:12 a.m.)</p> <p>24 THE COURT: We went through several rulings</p> <p>25 earlier this morning. Let me be very clear on that</p>
<p style="text-align: right;">Page 1192</p> <p>1 no support.</p> <p>2 Q. Okay. Again -- this is that figure from 1996</p> <p>3 that's put back together instead of being exploded and</p> <p>4 you -- I just ask you if you would agree with me again</p> <p>5 that there is support in this figure for the four</p> <p>6 unidirectional sensors in the platform, right?</p> <p>7 A. That's correct. You actually can see the platform,</p> <p>8 and you can see the sensors in there.</p> <p>9 Q. You can also see the motor.</p> <p>10 A. Vibration motor. Yep. There's the vibration</p> <p>11 motor. Goes there (indicating).</p> <p>12 Q. Mr. Armstrong did have the idea for a platform and</p> <p>13 the motor back then, right?</p> <p>14 A. That's correct.</p> <p>15 Q. But -- and he also -- we saw before that these</p> <p>16 buttons could be somewhere on there, right?</p> <p>17 A. That's right.</p> <p>18 Q. But again, does this figure show these other two</p> <p>19 input members that he now claims in 1992 [sic], in this</p> <p>20 1996 drawing?</p> <p>21 A. No. There are no other input members. And you can</p> <p>22 see here is the top of the housing; so, there is nothing</p> <p>23 else that you can touch when it's put together.</p> <p>24 Q. Okay. In fact, having multiple input members, as</p> <p>25 this claim requires, would -- would it conflict with his</p>	<p style="text-align: right;">Page 1194</p> <p>1 Chipworks one because no one from plaintiffs spoke. The</p> <p>2 precise ruling there is I had not -- I don't believe I</p> <p>3 have yet heard a predicate that would allow that use of</p> <p>4 those documents. So, to just bring them in without the</p> <p>5 proper predicate at this point is what I'm saying.</p> <p>6 We're in recess now until half past.</p> <p>7 MR. PRESTA: Thank you.</p> <p>8 (Recess, 11:13 a.m. to 11:29 a.m.)</p> <p>9 (Open court, all parties present, jury</p> <p>10 present.)</p> <p>11 THE COURT: Counsel?</p> <p>12 MR. PRESTA: Thank you, your Honor.</p> <p>13 BY MR. PRESTA:</p> <p>14 Q. Mr. Dezmelyk, before the break, you had given us an</p> <p>15 opinion on whether, after studying the 1996 application</p> <p>16 and the scope of claim 19 as filed in 2002 -- you had</p> <p>17 given us an opinion on whether you think that 2002 claim</p> <p>18 was supported back in the 1996 application. Again,</p> <p>19 could you just repeat your opinion?</p> <p>20 A. Yes. My opinion is that the limitations of claim</p> <p>21 19 are not supported by the 1996 application.</p> <p>22 Q. Okay. And what's your main reason for that?</p> <p>23 A. Well, the primary reason is that there was a lack</p> <p>24 of three input elements. The specification only</p> <p>25 indicates that Mr. Armstrong had the idea of a single</p>

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<p style="text-align: right;">Page 1251</p> <p>1 pictures. That's a part of the description -- shows, 2 again, that the inventor had that idea at the time; that 3 is, it's fully disclosed. His idea is disclosed in the 4 application or the specification for the patent. 5 Q. Thank you. 6 Now, we have a slide up on the screen now; 7 and that is -- could you tell us what that slide is 8 representing? 9 A. Yes. 10 Q. First of all, let me just ask you: Did you review 11 the application that was filed in 2000? 12 Earlier today we went through in detail the 13 application that was filed in 1996, and now that's 14 behind us. Now I was asking you to take a look at the 15 application that was filed in 2000, the year 2000, that 16 contained the claims that are being asserted in this 17 case; and you undertook a study of that, you've told me, 18 right? 19 A. Yes, I did. 20 Q. Okay. Now, when you undertook that study, did you, 21 in fact, do the same thing that you did when you were 22 trying to find support in the 1996 application for the 23 2002 claims? 24 A. Yes. I did the same analysis but this time with 25 the November, 2000, application --</p>	<p style="text-align: right;">Page 1253</p> <p>1 enough -- if he even described the invention then, if he 2 was able to -- in his mind if he had the whole invention 3 at that point in time, the invention that he's claiming. 4 Q. You studied that issue, right? 5 A. Yes, I did. 6 Q. Did you formulate an opinion of what the answer is 7 to that question -- 8 A. Yes, I did. 9 Q. -- that you just posed? 10 And what was it? 11 A. That there is no written description support in the 12 application in November, 2000, for the asserted claims. 13 Q. You mean even in the -- even in that application 14 that he filed in 2000, there is no description of the 15 invention that he later claimed in 2002? Is that what 16 you're telling me? 17 A. Right. There's not enough information to show that 18 he had that idea even at that point in time. 19 Q. Okay. Now let me -- 20 MR. PRESTA: If I could go to that slide. 21 Thank you. 22 BY MR. PRESTA: 23 Q. Could you please explain to the jury -- now, 24 there's a lot of similar subject matter in the -- or -- 25 I'm sorry.</p>
<p style="text-align: right;">Page 1252</p> <p>1 Q. Okay. 2 A. -- and its specification. 3 Q. Because the claims -- could you just describe the 4 relationship between these three things on the timeline 5 for the jury just so people understand now that we're 6 moving to another topic? 7 A. Sure. We started to see if the claims that were 8 written in July, 2002, and that ultimately are in the 9 '700 patent that we're talking about here were supported 10 first back in this application (indicating), this 11 written description; and we found they are not. 12 Now we're going to look to see if they're 13 even supported in the November, 2000, description when 14 Mr. Armstrong filed the patent application that became 15 the '700 patent. 16 Q. Now, why is it important that we find a written 17 description -- to see if there is written description 18 support in the 2000 application? 19 A. Well, again, a reason for a patent's claim -- a 20 claim in a patent to be invalid is if there's no written 21 description. We still have to determine did the 22 inventor have that idea, the full scope of that patent, 23 in mind when he filed that later application because 24 even if he's only entitled to the date when he filed 25 that in November, 2000, we still want to see if he had</p>	<p style="text-align: right;">Page 1254</p> <p>1 Is there a lot of things that are the same in 2 the 2000 application as in the 1996 application? 3 A. Yes. 4 Q. Okay. Are there any differences? 5 A. Yes, there are. 6 Q. Okay. Could you just, instead of -- so we don't 7 have to go through the whole thing again, is there a 8 way -- or is it possible for you to explain to the jury 9 what the differences are and how those differences 10 affected your understanding of what the scope of that 11 2000 application was? 12 A. Sure. First off, one of the things, which 13 mercifully for us in our time today, is the pictures are 14 the same. The drawings are the same; so, we do not need 15 to go through all the pictures all over again. 16 Q. Let me stop you right there just so we understand. 17 You just said that all of the drawings that are in this 18 2000 application are the same drawings that are in that 19 1996 application? 20 A. That's correct. 21 Q. Okay. Go on, please. 22 A. The text has some differences. In many places 23 where it used to say "one input member," it's been 24 changed. The text has changed to say "at least one 25 input member."</p>

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<p style="text-align: right;">Page 1295</p> <p>1 Q. Thank you. 2 Now, the next product in line is the Wii 3 Classic and the Wii Remote connected together. Do you 4 understand that? 5 A. Yes. 6 Q. Once again, they are not accusing either the Wii 7 Classic Controller by itself or the Wii Nunchuk -- I'm 8 sorry -- I'm sorry -- or the Wii Remote by itself, 9 right? 10 A. Right. It is only the combination of those two 11 controllers that are being accused. 12 Q. Do you have an opinion on whether that combination 13 infringes claim 19? 14 A. My opinion is that it does not infringe claim 19. 15 Q. And why is that? 16 A. Well, a couple different reasons. Primarily, 17 again, that the elements are not present if we go 18 through them. If we look -- again, we have the same 19 issue where it says a hand-operated controller. The 20 definition of "controller" is a device held in the hand. 21 And if we look for the limitations present in either of 22 these devices, we cannot find it. 23 Q. Now, is there -- for example, claim 19 requires 24 that there be a rumble motor, right? 25 A. Right.</p>	<p style="text-align: right;">Page 1297</p> <p>1 A. Yes, because it's intended for playing the really 2 old games. And really there's only a couple games here 3 on this list that it can even play; and one of them, for 4 instance, Paper Mario, this is actually a Nintendo 64 5 game that was written for running with the Nintendo 64 6 system. And it can also be used to operate the Wii 7 system itself. In other words, you can use the handles 8 on the controller to operate the Wii menus with them. 9 But if you look at that game, the Paper Mario 10 game, it's not possible in that game to use a third 11 element to manipulate objects or a viewpoint or even to 12 use a second element to manipulate a viewpoint. 13 Q. Are you aware that the Wii Classic Controller -- do 14 you know if the Wii Classic Controller works with any 15 GameCube games? 16 A. Not to my knowledge. 17 Q. Okay. Are you aware of whether or not, in fact, 18 the -- there are games that Nintendo has for its system 19 where you can use both the joysticks to do anything? 20 A. I'm unaware of any, but I haven't tried all of the 21 old games nor their 2-D games. 22 Q. But the games you did look at that were identified 23 by the plaintiff, what was your conclusions with respect 24 to those? 25 A. The third element does not do anything, and the</p>
<p style="text-align: right;">Page 1296</p> <p>1 Q. Is there a rumble motor inside the Wii Classic? 2 A. No, there is not. 3 Q. There's one inside, though, the Wii Remote. 4 A. That's correct. 5 Q. Is that why -- so, that's why they need to be 6 combined in order to satisfy the claim language, in your 7 view? 8 A. Yes. You wouldn't have -- the Wii Classic 9 Controller by itself lacks a rumble capability; so, it 10 wouldn't meet that limitation by itself. It only meets 11 it when it's combined with the other controller. 12 Q. Did you actually try to play some games to see what 13 the functionality of the Wii Classic Controller is? 14 A. Yes. 15 Q. And what did you determine? 16 A. Well, there are also particular situations -- well, 17 first off, there's no rumble. But there's also 18 particular situations where you cannot meet all of the 19 requirements for navigating a viewpoint and controlling 20 objects with both elements with the Wii Classic 21 Controller. 22 Q. Do you recognize this chart? 23 A. Yes, I do. 24 Q. Do you know why the Wii Classic is called the 25 "Classic"?</p>	<p style="text-align: right;">Page 1298</p> <p>1 second element cannot control or manipulate a viewpoint. 2 Q. Are you aware of any games where both of the 3 joysticks are operable on the Wii Classic Controller? 4 A. No. 5 Q. Have you read -- did you investigate at all to see, 6 in fact, whether there were games that the Wii Classic 7 Controller could be used, for example, to play GameCube 8 games to require actually two joysticks? 9 A. Right. I have read that it cannot be done. I 10 certainly have not tried every game in the world. I 11 only tried the games that were in this case. 12 Q. Okay. And you said you read and heard -- and read 13 it could not be done, did I hear? 14 A. Right. My understanding is it cannot be done. 15 Q. And what is your understanding of why it can't be 16 done? 17 A. I don't have a -- I don't know what the motivation 18 was or why that's the case. 19 Q. I understand. Thank you. 20 Now, I'd like to ask you a few questions 21 about the Wavebird and the Nintendo GameCube. Okay? 22 A. Sure. 23 Q. Now, when we look at claim 14, there is a term 24 "3-D" in claim 14. Do you see that? 25 A. That's correct.</p>

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<p style="text-align: right;">Page 1303</p> <p>1 A. Yes, I do. 2 Q. What is it? 3 A. This, again, is a chart showing, for the games that 4 were listed by Anascape in Mr. Howe's report, what you 5 could do with the second element and the third 6 element -- that's those joysticks on the GameCube 7 Wavebird -- in terms of controlling an object or 8 controlling a viewpoint. 9 And as you can see, there's no way, there's 10 no case, no example where you actually can control an 11 object with the third element. 12 Q. Did you do that same -- that chart is for both the 13 GameCube and the Wavebird, isn't it? 14 A. Yes, it is. 15 Q. So, again, then, do you have an opinion on whether 16 or not the GameCube -- whether the GameCube infringes 17 any of the asserted claims? 18 A. The GameCube does not infringe any of the asserted 19 claims. 20 Q. What about the Wavebird? 21 A. The Wavebird does not infringe any of the asserted 22 claims, either. 23 Q. Well, Mr. Dezmelyk, I appreciate your time. 24 MR. PRESTA: I'll pass the witness. 25 THE COURT: Who's for plaintiffs?</p>	<p style="text-align: right;">Page 1305</p> <p>1 A. In October of 2000. 2 Q. 2000. 3 So, it's absolutely clear, isn't it, that 4 both of those products were released years after 5 Mr. Armstrong's 1996 patent application? 6 A. Yes. They are released subsequent to the original 7 1996 application. 8 Q. And you also mentioned a patent -- a foreign patent 9 called either "Goto" or "Goto" (pronouncing), something 10 like that, you remember? 11 A. Yes, I did. It's a -- to be accurate, it's a 12 foreign-published patent application from Mr. Goto. 13 Q. What was the date of that patent? 14 A. The date of the patent issuing -- I don't know the 15 publication date -- is in April of 1998. 16 Q. '98. So, that also is at least two years after 17 Mr. Armstrong's 1996 patent application, correct? 18 A. That's correct. 19 Q. Now, you spent quite a bit of time going through 20 the Sony controllers, both the DualShock and the 21 DualShock 2, and comparing them to the asserted 22 claims -- at least some of them -- in the '700 patent, 23 correct? 24 A. Yes. 25 Q. And isn't it fair to say that you concluded that</p>
<p style="text-align: right;">Page 1304</p> <p>1 MR. CAWLEY: Sorry, your Honor. May I 2 proceed now? 3 THE COURT: Yes. That's what I was asking, 4 who would take him. 5 CROSS-EXAMINATION OF ROBERT DEZMELYK 6 BY MR. CAWLEY: 7 Q. Good afternoon, Mr. Dezmelyk. 8 A. Good afternoon. 9 Q. I just have what I hope won't be too many 10 questions; although, I know you've been on the stand a 11 while and naturally that's raised some questions that 12 I'd like to discuss with you. 13 Let's talk first about the Sony controllers. 14 You discussed those at some length. Remind us when the 15 Sony controllers that you discussed were first 16 introduced to the market. 17 A. Sure. The Sony -- the first Sony controller 18 introduced was the Sony DualShock, which was introduced 19 in June to retail sales. It shipped early, of course, 20 to wholesalers; but it was on retail sale -- I believe 21 you'll hear from the Sony witness -- at the end of June, 22 in June, 1998. 23 Q. 1998. 24 And the DualShock 2 was released in what 25 year?</p>	<p style="text-align: right;">Page 1306</p> <p>1 both of those Sony products are using the invention 2 described in those claims of the '700 patent? 3 A. No. That's an incorrect statement of my 4 conclusion. 5 Q. Well, let me ask you this: Isn't it true that you 6 said that they anticipate those claims? 7 A. Yes. They anticipate the claims. 8 Q. Doesn't that mean, then, that those devices 9 practice or do or have what is described in the claims? 10 A. It means that they meet the claim limitations, but 11 since -- 12 Q. All right, sir. 13 A. -- they were issued before the -- 14 Q. That really was my question. That was my question. 15 They meet or have within them what the claims 16 describe, correct? 17 A. That's correct. 18 Q. Okay. Have you had any discussions with any 19 Nintendo employees in this case? 20 A. Well, briefly I met a couple of Nintendo employees 21 here during the course of the trial, I think some of the 22 people that are -- 23 Q. Is that all? 24 A. That's all. 25 Q. You haven't had any discussions with any Nintendo</p>

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<p style="text-align: right;">Page 1307</p> <p>1 employees about how their products work or how they 2 develop their products? 3 A. I have not spoken to them about their product 4 development process or how those products work, no. 5 Q. Have you bothered to make yourself aware that some 6 Nintendo employees have described the Wii Nunchuk as 7 being an extension of the Wii Remote? 8 A. I'm not aware of that, but that's a fair 9 characterization. It adds to its capabilities. 10 Q. And it's true, isn't it, that the Nunchuk doesn't 11 work at all without the Wii Remote. 12 A. That's true. That's similar to the way the 13 Wavebird won't work without its receiver. 14 Q. Okay. But your answer to my question is yes, 15 correct, the Nunchuk won't work without the Remote? 16 A. Right. The Nunchuk uses the Remote to transmit its 17 information back down to the Wii. 18 Q. All right. So, it wouldn't surprise you if 19 Mr. Genyo Takeda, who is an engineer and a developer for 20 Nintendo, had testified in his deposition that he 21 considered the Nunchuk to be an invention of the Wii 22 Remote. That wouldn't surprise you, would it? 23 A. No. 24 Q. Were you here for the testimony of Mr. Ikeda last 25 week?</p>	<p style="text-align: right;">Page 1309</p> <p>1 A. Yes. He's one of the main characters in that game. 2 Q. And you know, don't you, that you need the Wii 3 Nunchuk connected to the Remote to play that game? 4 A. Yes. You can use it -- you use both of them in the 5 course of playing that game. 6 Q. Yes, sir. 7 And Mr. Ikeda also testified, didn't he, that 8 for games that require the use of the Nunchuk, if you 9 attempt to use the game with the Wii Remote alone, you 10 get a message on the screen saying you've got to connect 11 the Nunchuk? 12 A. Is that a question? 13 Q. Yes, sir. 14 A. Oh. 15 Q. I'm sorry. 16 A. I'm sorry. I didn't realize if -- I didn't know if 17 you were done. 18 Q. Let me add onto the end of it. You know that, 19 don't you? 20 A. Right. He has said that was the case. 21 Q. And Ms. Story also testified -- 22 MR. CAWLEY: I'm sorry. If we could have 23 that slide back up again. 24 BY MR. CAWLEY: 25 Q. Ms. Story also testified, didn't she, that Mario</p>
<p style="text-align: right;">Page 1308</p> <p>1 A. Yes, I was. 2 Q. And did you see him playing the boxing game? 3 A. Yes, I did. 4 Q. And he needed both the Wii Remote and the Wii 5 Nunchuk together to be able to do that, didn't he? 6 A. He used both of them when he was playing that game, 7 yes. 8 Q. And he needed them to be able to do that, didn't 9 he, to be able to play that boxing game? 10 A. Yes. He used both of them in the course of playing 11 the game. 12 Q. And were you here for Ms. Jacqualee Story's 13 testimony last week? 14 A. I'm sorry. I was not present for her testimony. 15 Q. Have you read her testimony? 16 A. No, I haven't. 17 Q. Let me show you a slide, Slide Number 3, that she 18 used in her testimony. Have you seen this slide before? 19 A. I mean, I've seen the characters; and I'm generally 20 familiar with it, yes. 21 Q. In the upper left there is a character called 22 "Link." Do you see that? Are you familiar with Link? 23 A. Yes. 24 Q. Do you know that Link appears in the game of Zelda: 25 Twilight Princess?</p>	<p style="text-align: right;">Page 1310</p> <p>1 and Luigi and at least one princess are in the game 2 Super Mario Galaxy? 3 A. Well, again, who were you referring to in the 4 testimony there? 5 Q. Ms. Story's testimony. 6 A. Right. I told you I was not present for her 7 testimony; so, I don't know what she testified to. 8 Q. Okay. Then, are you aware that the characters 9 Mario and Luigi and the princess all appear in the game 10 Super Mario Galaxy? 11 A. Yes, those characters all appear in that game. 12 Q. And you need the Wii Nunchuk to play that game, 13 too, don't you? 14 A. Yes. You normally use the Nunchuk to play that 15 game. 16 Q. And then, finally, are you aware that, as Ms. Story 17 told us, this character, Samus, in the lower right-hand 18 corner of the slide, is the main character of the game 19 Metroid Prime 3? 20 A. I'm not familiar with Metroid Prime 3; so, I can't 21 really comment about Samus or the game. 22 Q. Are you aware that you need the Wii Nunchuk to play 23 that game? 24 A. As I said, I'm not -- I've never played that game, 25 not familiar with the details of it; so, I can't really</p>

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<p style="text-align: right;">Page 1311</p> <p>1 comment on how it's played. 2 Q. Let me show you a piece of the transcript of 3 Ms. Story's testimony. She was asked: And was Samus a 4 character for the GameCube series, as well? 5 She answered: Yes. 6 Question: And what game does she appear in 7 on the Wii system? 8 Answer: She looks quite a bit different 9 because she wears a suit of armor. 10 Okay. 11 Answer: But I believe -- well, she's in 12 Metroid Prime 3. 13 Question: All right. And to play that game, 14 you need to use the Wii Remote and the Nunchuk, don't 15 you? 16 Answer: Yes. I believe you do. 17 Do you have any reason to disagree with 18 Ms. Story about that? 19 A. Well, I don't have a reason to either agree or 20 disagree. I've never played the game. I'm not familiar 21 with the game. So, I have no more information about 22 that than her testimony. 23 Q. Let me ask you some questions about the 24 accelerometer. You said you were here for Mr. Ikeda's 25 testimony, correct?</p>	<p style="text-align: right;">Page 1313</p> <p>1 the Z axis, as well. 2 Do you remember hearing that testimony from 3 Mr. Ikeda? 4 A. Yes, I do. 5 Q. Have you ever seen a picture of the interior of the 6 accelerometer used in the Wii Remote? 7 A. I think so. I'm not sure if I've seen a photo of 8 the exact chip that's on that particular -- certainly -- 9 I'm not sure -- they change by version; but I have a 10 general idea of what that chip looks like on the 11 surface, yes. 12 Q. Well, my question is -- let me ask this 13 specifically: Have you ever seen a Chipworks report for 14 the chip inside the Wii Remote? 15 A. Yes, I have. I've seen the Chipworks report. 16 MR. PRESTA: Objection. There's been no 17 foundation that that Chipworks report -- 18 MR. CAWLEY: He just testified to that. 19 THE COURT: I can't hear your objection 20 anyway. 21 MR. PRESTA: I'm sorry. The objection was 22 foundation with respect to the Chipworks report. 23 THE COURT: Overruled. 24 BY MR. CAWLEY: 25 Q. You've seen that picture, haven't you?</p>
<p style="text-align: right;">Page 1312</p> <p>1 A. Yes. 2 Q. Let me ask you if you remember this testimony. 3 Question: Mr. Ikeda, isn't it true that one 4 set of capacitors in the accelerometer is used to detect 5 acceleration on the X axis? 6 Answer: The X axis can be measured, as well. 7 But at the same time, measurement can take place along 8 the Y and Z axes. 9 Question: Yes, sir. That's my next 10 question. Isn't it true that a different set of 11 capacitors is used to detect acceleration on the Y axis? 12 And his answer: Yes, different capacitors 13 and probes for the Y axis. 14 Did you hear that testimony, sir? 15 A. Yes, I did. 16 Q. Let me ask you about some other of Mr. Ikeda's 17 testimony. 18 (Reading) So, there are capacitors that sense 19 movement in the X axis, correct? 20 And he answered: That's correct. 21 And then he was asked: And there are 22 capacitors that sense movement in the Y axis, correct? 23 And he answered: That's correct. 24 I said: Thank you, sir. 25 And he added: And there are capacitors for</p>	<p style="text-align: right;">Page 1314</p> <p>1 A. Yes, I have. 2 Q. And I think you just said that as far as you know, 3 it's a fair depiction of what's inside the chip? 4 A. Yeah. I could direct your attention to one part of 5 it where I think is a pretty accurate description of 6 what the chip is. 7 Q. Well, it wasn't the description; it was the 8 photograph that I'm interested in. Do you think that 9 the photograph that you saw in the Chipworks report was 10 an accurate depiction of what you saw -- of what is 11 inside the Wii Remote chip? 12 A. I think the photograph I saw that shows a single 13 sense line coming from the proof mass and shows a pair 14 of drive lines, one for X and one for Y, is an accurate 15 depiction of that chip, yes. 16 Q. You heard Mr. Ikeda's testimony that actually is 17 still up on the screen about capacitors that sense 18 movement in the accelerometer, correct? 19 A. Yes. 20 Q. Have you examined the 1996 application to determine 21 whether they refer to the possibility of using 22 capacitors as sensors? 23 A. The application -- Armstrong application? 24 Q. Yes, sir, 1996. 25 A. No, not specifically.</p>

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<p style="text-align: right;">Page 1315</p> <p>1 Q. Do you mean that it doesn't?</p> <p>2 A. No. I wasn't looking for the presence -- the</p> <p>3 specific mention of a capacitor as a sensing device.</p> <p>4 Q. Have you read the application?</p> <p>5 A. Yes, I have.</p> <p>6 Q. Well, wouldn't that be pretty important to this</p> <p>7 case to know if Mr. Armstrong had described as -- the</p> <p>8 possibility of using a capacitor as a sensor?</p> <p>9 A. It would be relevant to the extent it was related</p> <p>10 to the rest of the structure. I think -- I'd be happy</p> <p>11 to look at it if you would like to point me to the place</p> <p>12 that you're talking about.</p> <p>13 Q. Okay. Let's look at Slide 2. You see that this is</p> <p>14 an excerpt from the 1996 application?</p> <p>15 A. Yes.</p> <p>16 Q. And it's on -- in the jury book it's on page 12,</p> <p>17 line 12. And beginning at the top it says: For the</p> <p>18 purposes of this teaching, specification and claims, the</p> <p>19 term "sensor" or "sensors" is considered to include not</p> <p>20 only simple on/off, off/on contact switches but also</p> <p>21 proportional sensors such as proximity sensors, variable</p> <p>22 resistive and/or capacitive sensors. Do you --</p> <p>23 A. That's correct.</p> <p>24 Q. Do you see that, sir?</p> <p>25 A. Yeah. He's listing that as an example of a type of</p>	<p style="text-align: right;">Page 1317</p> <p>1 Q. And you've played that game, haven't you?</p> <p>2 A. Yes, I have.</p> <p>3 Q. And you played it with the Wii Nunchuk connected to</p> <p>4 the Wii Remote, correct?</p> <p>5 A. Yes. This chart, though, is about the Wii Classic</p> <p>6 and the Wii Remote.</p> <p>7 Q. Okay. Did you play this game with the Wii Classic</p> <p>8 connected to the Wii Remote?</p> <p>9 A. Yes.</p> <p>10 Q. Well, the test is -- sorry. You corrected me.</p> <p>11 This is about the Wii Classic; and, so, you played the</p> <p>12 game not with a Wii Nunchuk but with the --</p> <p>13 A. Well --</p> <p>14 Q. -- Wii Classic connected to the Wii, correct?</p> <p>15 A. Well, I think you're mischaracterizing. "Playing"</p> <p>16 is I tested the game.</p> <p>17 Q. Okay. Fine.</p> <p>18 A. And the answer is no, none of those elements do</p> <p>19 anything. But you wouldn't say that you're playing the</p> <p>20 game. There's a little bit of a different perspective</p> <p>21 on it because the game is not played with the Classic</p> <p>22 controller.</p> <p>23 Q. Okay. You tested it, then?</p> <p>24 A. Right. This chart is showing what I tested,</p> <p>25 because I tested each of the games.</p>
<p style="text-align: right;">Page 1316</p> <p>1 sensor.</p> <p>2 Q. Yes, sir. And does a capacitive sensor use a</p> <p>3 capacitor?</p> <p>4 A. Yes.</p> <p>5 Q. And is that the type of capacitors that Mr. Ikeda</p> <p>6 described?</p> <p>7 A. It's -- a capacitive sensor measures capacitance,</p> <p>8 and it's a type of sensor.</p> <p>9 Q. Yes, sir. And it's a type of sensor that was</p> <p>10 specifically discussed by Mr. Armstrong both in his 1996</p> <p>11 application and in the '700 application, correct?</p> <p>12 A. Right. He discloses -- he listed certain types of</p> <p>13 sensors --</p> <p>14 Q. I think my question was: It was listed, correct?</p> <p>15 And I think you just confirmed that it was,</p> <p>16 right?</p> <p>17 A. It was listed, yes.</p> <p>18 Q. Okay.</p> <p>19 MR. CAWLEY: Let me ask Mr. Martin or</p> <p>20 Mr. Moreno to pull up your Slide 194.</p> <p>21 BY MR. CAWLEY:</p> <p>22 Q. This chart lists, among other games, the game</p> <p>23 Zelda: Twilight Princess, correct?</p> <p>24 A. This chart, yes. The Legend of Zelda: Twilight</p> <p>25 Princess, yes.</p>	<p style="text-align: right;">Page 1318</p> <p>1 Q. But you can't play the game Zelda: Twilight</p> <p>2 Princess with the Wii Classic Controller, can you?</p> <p>3 A. As you can see in the chart here, neither of the</p> <p>4 controls do anything. So, in fact, as this chart is</p> <p>5 showing, you can't control objects and you can't control</p> <p>6 viewpoints --</p> <p>7 Q. Right.</p> <p>8 A. -- with either handle, which means you can't play</p> <p>9 the game.</p> <p>10 Q. So, the reason that the Wii Classic Controller</p> <p>11 can't control objects and navigate viewpoints is it's</p> <p>12 not compatible with this game at all, is it?</p> <p>13 A. Correct.</p> <p>14 Q. Okay. So, you could list 50 controllers that</p> <p>15 aren't compatible with this game and say the same thing</p> <p>16 about it, couldn't you?</p> <p>17 A. Well, I don't think there are 50 controllers. And,</p> <p>18 again, I'm looking at the very specific set of games in</p> <p>19 Dr. Howe's report. It's a rebuttal report. So, I'm</p> <p>20 allowed to look at the games he suggested and go through</p> <p>21 them and test them, and this is my test results. So, in</p> <p>22 fact, I have to test them all; and that's the results of</p> <p>23 the testing.</p> <p>24 Q. Well, maybe there aren't 50. But, for example, the</p> <p>25 Atari controller isn't compatible with any of those</p>

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<p style="text-align: right;">Page 1319</p> <p>1 games, is it?</p> <p>2 A. Well, but again, sir --</p> <p>3 Q. I'm sorry --</p> <p>4 A. -- I'm writing a rebuttal --</p> <p>5 Q. I'm sorry. Could you answer my question?</p> <p>6 The Atari controller is not compatible with</p> <p>7 that game, is it?</p> <p>8 A. No, it is not.</p> <p>9 Q. Okay. And that doesn't tell -- merely saying that</p> <p>10 it doesn't control object and viewpoint or object and</p> <p>11 viewpoint doesn't really tell you anything about the</p> <p>12 Atari controller, does it?</p> <p>13 A. It tells you that it does not meet that claim</p> <p>14 limitation.</p> <p>15 Q. Well, it tells you, doesn't it, that it's not even</p> <p>16 compatible with the game and never was intended to be</p> <p>17 used with that game in the first place? Isn't that</p> <p>18 true?</p> <p>19 A. Yes, and shows you it doesn't meet the claim</p> <p>20 limitation for that game.</p> <p>21 Q. Isn't that true, sir? Was your answer "yes"?</p> <p>22 A. Yes, along with the rest of my answer, which is</p> <p>23 that it does not operate that game.</p> <p>24 Q. I'm sorry, sir. Maybe I'm being unclear in my</p> <p>25 question. Was your answer "yes"?</p>	<p style="text-align: right;">Page 1321</p> <p>1 Q. And you can't play Animal Crossing with the Wii</p> <p>2 Classic Controller, can you? That's a GameCube</p> <p>3 controller.</p> <p>4 A. Again, that's correct.</p> <p>5 Q. You can't play Blood Omen II with the Wii Classic</p> <p>6 Controller, can you?</p> <p>7 A. That's correct.</p> <p>8 Q. You can't play Super Mario Galaxy with the Wii</p> <p>9 Classic Controller, either, can you?</p> <p>10 A. That's correct.</p> <p>11 Q. Now, you recognize that the left thumbstick on this</p> <p>12 controller is capable of controlling objects, isn't it?</p> <p>13 A. Right. That's correct.</p> <p>14 Q. But isn't the right thumbstick exactly the same as</p> <p>15 the left thumbstick?</p> <p>16 A. In terms of its internal design --</p> <p>17 Q. Yes, sir.</p> <p>18 A. -- yes.</p> <p>19 Q. So, wouldn't it be capable, therefore, of</p> <p>20 controlling objects, too, if the game designer chose to</p> <p>21 program his or her game that way?</p> <p>22 A. If a game designer chose to do that, yes, it could</p> <p>23 be used for similar functionality.</p> <p>24 Q. All right, sir.</p> <p>25 MR. CAWLEY: Let's take a look at Slide 217.</p>
<p style="text-align: right;">Page 1320</p> <p>1 A. Well, my answer was if you -- can you please</p> <p>2 restate the question?</p> <p>3 Q. Sure. Since the Atari controller isn't even</p> <p>4 compatible with the game The Legend of Zelda: Twilight</p> <p>5 Princess, saying that it doesn't control object and</p> <p>6 viewpoint doesn't really tell you anything about the</p> <p>7 capability of the controller, does it?</p> <p>8 A. It does tell you that you cannot meet the claim</p> <p>9 limitation of claim 19 with that controller.</p> <p>10 Q. And that game, correct?</p> <p>11 A. Right.</p> <p>12 Q. What if it does it with another game?</p> <p>13 A. That's a different test.</p> <p>14 Q. Are you saying to the jury that it's a fair test to</p> <p>15 take a controller, to see if it can control objects and</p> <p>16 viewpoints, and to test that on a game that the</p> <p>17 controller is not even compatible with?</p> <p>18 A. No. You're mischaracterizing my statement in my</p> <p>19 report.</p> <p>20 Q. Well, so, you're not telling the jury that, then,</p> <p>21 correct?</p> <p>22 A. No.</p> <p>23 Q. It's true that you can't play Shrek the Third with</p> <p>24 the Wii Classic Controller, either, can you?</p> <p>25 A. That's correct.</p>	<p style="text-align: right;">Page 1322</p> <p>1 BY MR. CAWLEY:</p> <p>2 Q. Is this another chart that you showed us?</p> <p>3 A. Yes, it is.</p> <p>4 Q. And this chart says that it shows the GameCube</p> <p>5 controller doesn't move objects or navigate viewpoints</p> <p>6 with Zelda: Twilight Princess, correct?</p> <p>7 A. Yes.</p> <p>8 Q. Did you, by any chance, review the game manual that</p> <p>9 comes with Zelda: Twilight Princess?</p> <p>10 A. Yeah, but I don't recollect it at the moment.</p> <p>11 Q. Don't worry. I think I have a couple of printouts</p> <p>12 from that manual.</p> <p>13 Let's take a look at the slide. That's the</p> <p>14 cover of it. Does it look familiar?</p> <p>15 A. I've seen it, yeah.</p> <p>16 Q. Do you see on the left thumbstick that it says</p> <p>17 "Control Stick"? Do you see that?</p> <p>18 A. I do see that.</p> <p>19 Q. And do you see that it says "walk/run/swim/jump"?</p> <p>20 A. Yes. But I also see -- isn't this the GameCube</p> <p>21 version of Zelda?</p> <p>22 Q. Sir, if I could get you to answer my question.</p> <p>23 A. It says --</p> <p>24 Q. Is that what it says?</p> <p>25 A. Yeah.</p>

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<p style="text-align: right;">Page 1323</p> <p>1 Q. And doesn't it show that the left thumbstick is 2 used to make Link swim, run, and jump? 3 A. Yes. 4 Q. And doesn't it show that the right thumbstick is 5 used to navigate viewpoints? 6 A. It says "change camera angle," yes. 7 Q. Okay. Do you quibble with "navigate viewpoints" 8 and "change camera angle"? 9 A. No, no. That would be navigating a viewpoint. 10 Q. So, would the answer to my question be "yes," 11 Mr. Dezmelyk? 12 A. Yes. I see that. 13 Q. Thank you. 14 And you say you've actually played these 15 games? 16 A. Well, you're putting up here a different game than 17 the one I played and a different one than I am writing 18 about in my report. Mine was the Wii version, because 19 I'm testing on the Wii platform. 20 Q. Now, you heard Mr. Ikeda's testimony, didn't you, 21 when he was discussing the Wii version of the Mario 22 game? 23 A. Yes. 24 Q. Did you hear him say that you can use the Wii to 25 move a ball-like character using the accelerometer?</p>	<p style="text-align: right;">Page 1325</p> <p>1 Mr. John Pederson, who is the senior director of 2 technical services at Nintendo? 3 A. No, I was not. 4 Q. Okay. Did you read his testimony? 5 A. No. 6 Q. "No"? Let me make sure you've seen it. 7 He was asked the question: The Wii Remote 8 controller -- we've heard quite a bit about -- has an 9 accelerometer in it, correct? 10 He answered: Correct. 11 And that accelerometer in the Wii Remote 12 provides three separate signals representing 13 acceleration along three different axes; isn't that 14 correct? 15 He answers: Correct. 16 And you would agree with me, wouldn't you, 17 that the use of those three outputs is up to the game 18 designer? 19 You don't disagree with Mr. Pederson, do you? 20 A. No. 21 Q. So, you agree with him and Mr. Ikeda that the 22 designer of the game can choose how to use the user 23 inputs and outputs from the controller? 24 A. Yes. A game designer certainly can choose how they 25 want to use the information that comes from the</p>
<p style="text-align: right;">Page 1324</p> <p>1 A. I don't recall that exact line of testimony. 2 Q. Do you remember Ikeda saying he thought that a game 3 designer could use the output of the accelerometer to 4 change the player's point of view? 5 A. Again, I don't remember his exact statement. I 6 don't have any reason to doubt it if you are 7 representing that that's his statement. 8 Q. Well, I don't want to ask you to take my word for 9 it. 10 You were here during his testimony, weren't 11 you? 12 A. Yes, but I don't recall every word the guy says. 13 Q. Okay. He was asked a question: Could the game 14 designer choose to use the output of the accelerometer 15 to move objects on the screen? 16 He answered: Well, just the way you can move 17 Mario, if you had a ball-like character, you could move 18 that ball in the same way. 19 Question: Could a game designer choose to 20 use the output of the accelerometer to change the 21 player's point of view on the screen? 22 And he answered: I think so. 23 Does that refresh your recollection? 24 A. Yes. 25 Q. And do you -- were you here for the testimony of</p>	<p style="text-align: right;">Page 1326</p> <p>1 controller, sure. 2 Q. And the outputs from the controller are capable of 3 being used to change a player's point of view? 4 A. Well, they're capable to be used by the game 5 designer the way he wants; and so, a game designer could 6 do that, yes. 7 Q. Okay. And could it be capable of being used by the 8 game designer to move objects? 9 A. Yes. 10 Q. Okay. Thank you, sir. 11 THE COURT: Counsel, we're going to go ahead 12 and take a break. 13 I'll ask you to be back, ladies and 14 gentlemen, at ten of. 15 (The jury exits the courtroom, 3:33 p.m.) 16 (Discussion off the record) 17 THE COURT: All right. We're in recess until 18 ten of. 19 (Recess, 3:33 p.m. to 3:48 p.m.) 20 (Open court, all parties present, jury 21 present.) 22 THE COURT: Counsel? 23 MR. CAWLEY: Thank you, your Honor. 24 BY MR. CAWLEY: 25 Q. Mr. Dezmelyk, you indicated in your expert report</p>

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<p style="text-align: right;">Page 1335</p> <p>1 have the whole idea at the time. It's not like we're 2 looking for the words in the claim. 3 Q. Well, obviously we're not looking for the word 4 "yes" or "no" or "of" or "thumb" or something. But you 5 agree with me the word "thumbstick" doesn't appear in 6 any of the claims of the asserted patent? 7 A. Right. It does not. 8 Q. Okay. Things like "member" appears or "element" or 9 "sensor," right? 10 A. Right. 11 Q. And you would also agree with me, wouldn't you, 12 that it's not proper to compare, or to look for and 13 compare, what's disclosed in the claims to the Nintendo 14 products, at least for purposes of this exercise of 15 determining whether or not the disclosure in '96 was 16 adequate? 17 A. I actually disagree with you there in that the 18 infringement contentions and the testimony put before us 19 show a scope that's asserted. 20 Q. So, you think that when the jury is trying to 21 decide this issue and trying to decide whether what 22 Mr. Armstrong put in his claims for the '700 patent -- 23 whether that's adequately described in the '96 24 application, you think they should look at Nintendo's 25 products to do that?</p>	<p style="text-align: right;">Page 1337</p> <p>1 Q. There may be some times when I also want to ask you 2 about the application that was filed for the '700 3 patent, but I'll try and make that clear when I'm doing 4 that. 5 A. Thank you. 6 Q. Okay. So, you have the patent in front of you. 7 You have claim 19, right? 8 A. Yes. 9 Q. Okay. Claim 19 requires, at the very beginning of 10 it, a hand-operated controller, right? 11 A. Yes. 12 Q. Okay. Let's take a look at Slide 6. Some of these 13 pictures are probably becoming pretty darn familiar to 14 us by now; so, I'm not going to take a whole lot of time 15 on them. But you recognize this as claim 3 from the 16 application, don't you? 17 A. Yes. 18 Q. And it shows a ball, right? 19 A. Yep. 20 Q. And it shows a collet or collar around the ball, 21 right? 22 A. That's correct. 23 Q. And can't the user use the ball with his hands? 24 A. Yes. 25 Q. And can't the user move the collet with his or her</p>
<p style="text-align: right;">Page 1336</p> <p>1 A. No. That's not what I said. 2 Q. Okay. Well, thank you, sir. 3 Let's take a look at some claims, then; and 4 I'd like to now -- instead of comparing the claims to 5 your summary or to pictures, I'd like to go through and 6 compare some of them to what's actually in the '96 7 disclosure. 8 Do you have a copy of the '700 patent in 9 front of you, sir? 10 A. Sure. I believe so. 11 Q. Since I think you started with claim 19, why don't 12 we start with claim 19. Claim 19 requires a 13 hand-operated controller, doesn't it? 14 A. Yes, it does. I think, though, I'd like to ask 15 kind of a question of you first to clarify it. You've 16 asked me to look at the '700 patent. 17 Q. Yes, sir. 18 A. Are you asking me questions related to the 19 description disclosure and specification of that patent 20 or the filed application? 21 Q. No. I'm sorry. Thank you for the clarification. 22 No, sir. I am going to ask you some questions about 23 that, but mostly I'm going to be asking you about the 24 disclosure in the '96 application. 25 A. Right. So --</p>	<p style="text-align: right;">Page 1338</p> <p>1 hands? 2 A. Yes. 3 MR. CAWLEY: Now let's go to Slide 7. 4 BY MR. CAWLEY: 5 Q. This slide, which at the top is from the '96 6 application and from the bottom is from the '700 7 application -- let's start up top. 8 In the '96 application it says: This 9 invention relates to structuring for sheet supported 10 sensors and associated circuitry in hand-operated 11 graphic image controllers. 12 Correct? 13 A. Yes. 14 Q. And the '700 application, that disclosure says: 15 This invention relates to hand input controllers. 16 Correct? 17 A. Yes. 18 Q. Now, claim 19 also requires, a little bit further 19 on, structure allowing hand inputs rotating a platform 20 on two mutually perpendicular axes, correct? 21 A. That's correct. 22 Q. Now, I notice -- we might just note this, that this 23 structure specifically says "allowing hand inputs," 24 doesn't it? 25 A. Yes.</p>

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<p style="text-align: right;">Page 1339</p> <p>1 Q. And the pictures, just to skip ahead a little, the 2 pictures that you drew for the second element and third 3 element, those red things on your picture -- remember? 4 A. Yes. 5 Q. The second and third element don't say anything 6 about the hand, do they? 7 A. No, they don't. 8 Q. Okay. 9 A. Not in the text. 10 Q. Yes, sir. But let's go back to this part of claim 11 19 that requires a structure allowing hand inputs 12 rotating a platform on two mutually perpendicular axes. 13 And take a look at Slide 8, which is Figure 28. This is 14 from the '96 disclosure, correct? 15 A. Right. 16 Q. And this thing that we've colored blue at the top, 17 that's a flat surface that's designed for someone to 18 grab and hold, correct? 19 A. That's correct. It's at the top of the handle. 20 Q. And to rotate it on the pitch and roll axes, 21 correct? 22 A. Right. You can see the pivots down below in that 23 assembly. 24 Q. And are those perpendicular axes? 25 A. Yes, they are.</p>	<p style="text-align: right;">Page 1341</p> <p>1 A. Yes. 2 Q. Have you studied this? 3 A. Yes. I'm familiar with that. 4 Q. Are you familiar with how it works? 5 A. Yes. 6 Q. I want to redraw it a little bit so that it will be 7 a little clearer and we can make it actually move. So, 8 let me go to the next slide. This is a 3-D rendering of 9 that drawing. Would you take a minute to look at it? I 10 know we've given you these slides in advance; so, you 11 may have had a chance to look at this. 12 Does this appear to be a 3-D rendering of 13 Figure 22? 14 A. Right. It's animated to show the operation of some 15 of the mechanism. 16 Q. And you agree that this is how this embodiment 17 would work, at least parts of it, if it was actually 18 built, right? 19 A. Right. 20 Q. Now, you see this light purple rod, correct? 21 A. Yes. 22 Q. And when that light purple rod moves up and down, 23 the dark purple rocker in the front rocks back and 24 forth, correct? 25 A. Right.</p>
<p style="text-align: right;">Page 1340</p> <p>1 Q. All right, sir. 2 A little further on, claim 19 requires a 3 controller including tactile feedback means for 4 providing vibration, right? 5 A. Yes. 6 Q. If we go to the next slide, which will show us 7 Figure 21 of the application, we've seen this a number 8 of times. You're familiar with it, aren't you? 9 A. Yes, I am. 10 Q. And the quote in that figure says: Another 11 preferred embodiment. Such a device has additional 12 benefits including space to place active tactile 13 feedback in a still small handle, et cetera. 14 Do you see that? 15 A. Yes, I do. 16 Q. By the way, if I forgot to mention it -- and I'm 17 trying to move along at a reasonable clip here -- all of 18 these slides have references to the specific page number 19 in the juror notebooks where these things appear, if any 20 of the jurors want to flip to that page for any reason. 21 The next thing that I want to direct your 22 attention to in claim 19 requires a second element 23 movable on two perpendicular axes. 24 Let's take a look at Figure 22 from the 1996 25 application. Do you see that figure?</p>	<p style="text-align: right;">Page 1342</p> <p>1 Q. And when the light purple rod swings from side to 2 side, the dark purple rocker in the back rocks back and 3 forth, right? 4 A. Right. I can see that. 5 Q. And these rockers, when they do rock, push down on 6 these domes underneath them, correct? 7 A. Yes. 8 Q. And each of these domes activates a unidirectional 9 sensor, correct? 10 A. Right. 11 Q. Okay, sir. 12 If we go to the next slide, this shows Figure 13 45 from the 1996 application, correct? 14 A. Yes. 15 Q. And you're aware, aren't you, that this is a 16 bi-directional sensor? 17 A. Right. 18 Q. So that instead of just going one direction, this 19 thing can rock up or down against that potentiometer 20 that it's engaged with, right? 21 A. Right. As the Element 336 rocks back and forth, 22 the Gear 754 would rotate 752; and the Potentiometer 750 23 would change its position. 24 Q. Yes, sir. And, in fact, the '96 application that 25 Mr. Armstrong filed said that you could replace the</p>

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<p style="text-align: right;">Page 1343</p> <p>1 unidirectional sensors on Figure 22 with these 2 bi-directional sensors, correct? 3 A. That's correct. 4 Q. Okay. Thank you. 5 The next little bit of claim 19 requires a 6 third element movable on two mutually perpendicular 7 axes; is that right? 8 A. Yes. That's the next claim element in line, the 9 third element section. 10 Q. Let's take a look at the next slide. This is 11 another 3-D rendering of that same Figure 22 from the 12 '96 application, correct? 13 A. Yes. 14 Q. Now, what moves these dark purple rockers in the 15 controller? 16 A. I believe there's a kind of a block that comes down 17 from the plate above it inside. 18 Q. Okay. So, there's a plate above these, correct? 19 A. Right. 20 Q. And there is an engagement point that is connected 21 to that plate above that engages the top of these two 22 rockers. Fair? 23 A. Right. 24 Q. And you see these red things are supposed to 25 represent those engagement points, right?</p>	<p style="text-align: right;">Page 1345</p> <p>1 A. That's correct. 2 Q. And there are two buttons here, right -- 3 A. That's correct. 4 Q. -- colored blue? 5 A. Yes. 6 Q. And Slide 16, you see that this is also some quotes 7 from the '96 application? 8 A. (Pausing.) 9 Q. Yes, sir? 10 A. Yeah. I'm just taking a second to read it. 11 Q. Sure. 12 A. I can't read it as fast as you can perhaps. 13 Q. Well, let's just work through them together. At 14 the top, on page 39, it says: Also shown here are two 15 buttons, 378, for operation by the user's fingers. 16 A. Okay. 17 Q. Right? 18 A. Yep. 19 Q. And on page 40 it says: Additionally, auxiliary 20 secondary buttons -- select, fire buttons, special 21 function keys, et cetera -- are readily integrated. 22 See that? 23 A. Yep. I see that. 24 Q. And then next on page 48 -- oh, where shall we 25 start -- (reading) sensors within a 6-degree-of-freedom</p>
<p style="text-align: right;">Page 1344</p> <p>1 A. Right. They are two parts inside the structure. 2 Q. And when the light platform moves, this light 3 purple platform moves, the engagement points fixed to 4 the plate above cause the rockers to rock back and 5 forth, correct? 6 A. Right. We can see it in animation here. 7 MR. CAWLEY: Let's go to the next slide, 8 14 -- oh, wait a minute. I skipped something. I'm 9 sorry. Let's stay on this slide and go ahead in the 10 animation. 11 Are we ready to rock? Okay. Thank you. 12 BY MR. CAWLEY: 13 Q. The middle shaft here and the small rod that 14 activates the other two rockers also moves back and 15 forth and side to side along with the bottom platform, 16 correct? 17 A. That's correct. 18 Q. Okay. Now let's look at something else that claim 19 19 requires, a plurality of finger-depressible buttons. 20 Do you see that? 21 A. Yes. 22 Q. Okay. Let's take a look at Slide 15. 23 Do you recognize this? 24 A. Yes, I do. 25 Q. It's from the '96 application, correct?</p>	<p style="text-align: right;">Page 1346</p> <p>1 device such as for my co-pending application and for 2 finger-activated buttons which may be located elsewhere 3 within the device. 4 A. Right. 5 Q. See that? 6 (Reading) Such as on either the handle 7 housing, the base housing, et cetera. 8 Do you see that? 9 A. Right. I see that. 10 Q. Now I want to give you that alert that I talked to 11 you about before. Let's go ahead -- rather than to have 12 to go back and repeat it -- and look at something 13 similar in the '700 patent. Do you see that, likewise, 14 the '700 patent says: Also shown here are two buttons, 15 378, for operation by the user's fingers? 16 A. Yep. 17 Q. And from the '700 patent: Auxiliary secondary 18 input buttons. 19 See that? 20 A. Yes. 21 Q. And from the '700 patent, a 3-D device such as for 22 my co-pending application, et cetera, and for finger 23 activated buttons, correct? 24 A. Yes, I see that. 25 Q. In addition to the plurality -- and just remind us.</p>

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<p style="text-align: right;">Page 1347</p> <p>1 "Plurality" means what?</p> <p>2 A. Well, a plurality is more than one.</p> <p>3 Q. More than one. So --</p> <p>4 A. Two is a plurality.</p> <p>5 Q. -- disclosure of two buttons satisfies the</p> <p>6 disclosure at least as far as a plurality is concerned,</p> <p>7 correct?</p> <p>8 A. It satisfies the disclosure of a button alone. It</p> <p>9 doesn't necessarily satisfy the disclosure overall.</p> <p>10 Q. Well, my question is about --</p> <p>11 A. But in this case it does disclose two buttons, yes.</p> <p>12 Q. Okay. And that's a plurality, right?</p> <p>13 A. Yes.</p> <p>14 Q. Okay. If we go on to claim 19, it next requires a</p> <p>15 button sensor, correct?</p> <p>16 A. Yeah. We're reading backwards up from the</p> <p>17 bottom -- or we're reading down from "buttons." I</p> <p>18 understand.</p> <p>19 Q. Yep.</p> <p>20 A. We've switched applications, but we're now reading</p> <p>21 down.</p> <p>22 Q. Right.</p> <p>23 A. I just wanted to make sure I was following.</p> <p>24 Q. Yes, sir.</p> <p>25 A. Thank you.</p>	<p style="text-align: right;">Page 1349</p> <p>1 button claim. Yeah, I'm familiar with it.</p> <p>2 Q. Okay. In the next slide we've got a couple of</p> <p>3 quotes, one from the '96 application and one from the</p> <p>4 '700 patent. Do you see that?</p> <p>5 A. Yes.</p> <p>6 Q. And the first one says: The invention can be</p> <p>7 constructed with sensors as simple as electrical</p> <p>8 contacts or more sophisticated proportional and</p> <p>9 pressure-sensitive variable output sensors, or the like.</p> <p>10 Isn't that accurate?</p> <p>11 A. Yes.</p> <p>12 Q. And the '700 application, likewise, it says the</p> <p>13 same thing, doesn't it?</p> <p>14 A. Right. I mean, the text here is obviously</p> <p>15 accurate. It's the --</p> <p>16 Q. Yes, sir.</p> <p>17 A. The text is there.</p> <p>18 Q. Let's take a look at Slide 20. This is sort of the</p> <p>19 same setup. From the '96 application, Mr. Armstrong</p> <p>20 disclosed, did he not, Figure 42 which shows a compound</p> <p>21 membrane sensor sheet 700 containing a compound sensor</p> <p>22 702 which, in essence, is a commonly known simple</p> <p>23 switched membrane sensor on top of my novel proportional</p> <p>24 membrane sensor.</p> <p>25 Do you see that?</p>
<p style="text-align: right;">Page 1348</p> <p>1 Q. We're reading back claim 19; and we've got to find</p> <p>2 support for a button sensor in claim 19, right?</p> <p>3 So, let's look back now. We're back in the</p> <p>4 '96 application. Does this figure show button sensors?</p> <p>5 A. Yes, it does.</p> <p>6 Q. All right, sir. They are associated with the dark</p> <p>7 blue buttons, colored light blue, right?</p> <p>8 A. Yes.</p> <p>9 Q. These are the buttons (indicating); and these are</p> <p>10 the button sensors (indicating), accurate?</p> <p>11 A. Yes.</p> <p>12 Q. Wouldn't be much point in a button without a button</p> <p>13 sensor, would there?</p> <p>14 A. No.</p> <p>15 Q. Okay. Let's now turn our attention to the '700</p> <p>16 patent and go over some of the other claims. I think</p> <p>17 that has taken us through claim 19. Let's look at</p> <p>18 claim 22. Maybe you know it well enough, or if you want</p> <p>19 to turn to it.</p> <p>20 Claim 22 requires a button sensor that</p> <p>21 outputs data proportionate to depression of one of said</p> <p>22 buttons, correct?</p> <p>23 A. Well, if you could give me a second because --</p> <p>24 Q. Yes, sir.</p> <p>25 A. That's 19, dependent claim 22, the proportional</p>	<p style="text-align: right;">Page 1350</p> <p>1 A. Right. I do think it's appropriate to note here</p> <p>2 that this illustration is -- and this discussion of this</p> <p>3 proportional sensor invention is a different topic.</p> <p>4 Q. Well --</p> <p>5 A. It's not.</p> <p>6 Q. I understand that's what you say, sir; but my</p> <p>7 question is -- have you read these disclosures before?</p> <p>8 A. Yes, I have.</p> <p>9 Q. And you see that the same one is in the '700 as is</p> <p>10 in the '96?</p> <p>11 A. Yes.</p> <p>12 Q. Claim 23 requires, among other things, a rotary</p> <p>13 potentiometer, correct?</p> <p>14 A. That's correct.</p> <p>15 Q. And on Slide 21 -- we already saw this picture, I</p> <p>16 think, earlier. This is in the '96 application,</p> <p>17 correct?</p> <p>18 A. Right.</p> <p>19 Q. And that is a rotary potentiometer, is it not?</p> <p>20 A. That's correct.</p> <p>21 Q. And, in fact, we don't have much doubt about it</p> <p>22 because this line 29 through 30 of page 46 describes it</p> <p>23 as a rotary encoder or potentiometer, don't they?</p> <p>24 A. Right.</p> <p>25 Q. And on this slide -- and this now is the '700</p>

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<p style="text-align: right;">Page 1351</p> <p>1 application itself -- it also describes a rotary encoder 2 or potentiometer, correct? 3 A. That's correct. 4 Q. Now going back up to claim 16 for a minute. 5 Claim 16 requires two sheets on two planes, correct? 6 A. Yes. 7 Q. Let's take a look at Figure 29 from the 1996 8 application. And this has obviously been colored, 9 since, as you told us, you don't file patent 10 applications in color. So, this has been colored. Is 11 this thing on the top a sheet? 12 A. Yes. This is -- 13 Q. This part on the bottom is the sheet, correct? 14 A. Right. And there's kind of a sandwich of sheets in 15 this particular illustration, the way it's peeled apart 16 at the end. 17 Q. Okay. And these you understand for purposes of the 18 drawing -- these parts of the sandwich have been opened 19 up so that we can see what they look like; but, in fact, 20 they are meant to be sandwiched together like in the 21 corner over there, correct? 22 A. Right. They would be assembled and, you know, 23 glued or together into one composite. 24 Q. Sure. And here (indicating), this is what I'm 25 going to call a "plus" or "cross-shaped stack" of</p>	<p style="text-align: right;">Page 1353</p> <p>1 A. Either one. 2 Q. Could be depressible by a single finger, correct? 3 A. Yes. 4 Q. Okay. And the next slide, these are some 5 quotations -- again both from the '96 application and, 6 to save time, from the '700 patent application -- about 7 finger-depressible buttons. And we read from '96 that 8 there are two finger select switches, right? 9 A. Right. 10 Q. Is that referring back to those buttons we just 11 saw? 12 A. I'm not sure that that exact 146 is the same one, 13 but it's a button. 14 Q. Okay. And the same thing, two finger select 15 switches, was disclosed in the '700 application. Fair? 16 A. Right. 17 Q. And you see, while we're at it -- although I'll get 18 to this later -- that the two finger select switches are 19 described both in the '96 application and in the '700 20 application as secondary input members? 21 A. Yes. I see that. 22 Q. Okay. Now, claim 16 that we're talking about here 23 actually begins with the term a "3-D graphics 24 controller," correct? 25 A. Correct.</p>
<p style="text-align: right;">Page 1352</p> <p>1 sheets, isn't it? 2 A. Yes. 3 Q. And this (indicating) here, which sort of looks 4 like frog lily pads or something -- these are a 5 circular-shaped stack of sheets that have been opened up 6 to let us see that they are, in fact, made of different 7 sheets, correct? 8 A. Right. That's correct. 9 Q. All right, sir. Claim 16 also requires a button 10 depressible by a single finger, right? 11 A. Yes. I don't have the claim language memorized; 12 but -- 13 Q. I'm sorry. 14 A. -- yes, I believe so. 15 Q. Would you like to consult it? 16 A. No. That's fine. 17 Q. Okay. 18 A. You know that pretty well. 19 Q. Let's go to the next slide. Does this from the 20 1996 application disclose a button depressible by a 21 single finger? 22 A. Yes, it does. There's two buttons here. One or 23 the other could be a button depressible by a single 24 finger. 25 Q. Either one of them?</p>	<p style="text-align: right;">Page 1354</p> <p>1 Q. And in Slide 26 we see that Mr. Armstrong -- 2 although in '96 he often used the phrase "6 degrees of 3 freedom," he did talk about "3-D graphic image 4 controllers," correct? 5 A. Correct. 6 Q. And, in fact, he described that his invention, his 7 structure enabling the use of this common break-over 8 technology in a 6-degree-of-freedom controller is a 9 highly novel and useful improvement in the field of 3-D 10 graphic image controllers. 11 Correct? 12 A. Right. That's a statement from his application in 13 1996. 14 Q. And he said the same thing in the year 2000 in the 15 '700 application; isn't that right? 16 A. Well, except that he changed "6-degree-of-freedom" 17 to "3-D" -- 18 Q. Okay. 19 A. -- in the line where -- 20 Q. Right. 21 A. -- it says "in a 3-D controller," "in a 22 6-degree-of-freedom controller." 23 Q. But in terms of his talking about 3-D graphic image 24 controllers in both '96 and 2000, those things are in 25 the language we just read, aren't they?</p>

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<p style="text-align: right;">Page 1355</p> <p>1 A. Yes.</p> <p>2 Q. Okay. Let's take a look at claim 14, if you'd like</p> <p>3 to look at it or if you just want to take my word for</p> <p>4 it.</p> <p>5 I'm going to ask you: Claim 14 requires six</p> <p>6 axes of control, correct?</p> <p>7 A. Yes.</p> <p>8 Q. If we look at the next slide, first from the '96</p> <p>9 application, this quote says: Ideally a pair of</p> <p>10 unidirectional sensors are used to describe each axis,</p> <p>11 thus 6 pair of unidirectional sensors, 12 individual</p> <p>12 sensors, can describe 6 degrees of freedom.</p> <p>13 Was that in Mr. Armstrong's '96 application?</p> <p>14 A. Yes. That's a statement from the application.</p> <p>15 Q. Was it in his application for the '700 patent?</p> <p>16 A. Yes, it is.</p> <p>17 Q. And when I ask you if it is in the '700 patent, you</p> <p>18 understand that I'm referring to the '700 patent</p> <p>19 specification?</p> <p>20 A. Well, yes. I understand that. Just for clarity,</p> <p>21 the citation there is to the '700 patent; but the '700</p> <p>22 patent specification from that application from 2000 is</p> <p>23 printed in the patent.</p> <p>24 Q. Okay.</p> <p>25 A. So, the same document --</p>	<p style="text-align: right;">Page 1357</p> <p>1 requires is a sheet connected to at least eight sensors,</p> <p>2 correct?</p> <p>3 A. Yes.</p> <p>4 Q. Okay. Let's go back and take a look at the '96</p> <p>5 application and the '700 specification. We see here the</p> <p>6 description that Mr. Armstrong gave back in '96 that</p> <p>7 Figure 2 shows a side view of a 6-degree-of-freedom</p> <p>8 two-planar device using one circuit board per plane for</p> <p>9 support of sensors and electronics with eight sensors</p> <p>10 located on a plane in the base.</p> <p>11 Do you see that, sir?</p> <p>12 A. Yes.</p> <p>13 Q. And essentially, except for the change of</p> <p>14 "6-degree-of-freedom" to "3-D," the same thing is</p> <p>15 disclosed in the '700 specification, correct?</p> <p>16 A. Right. Again, we see that "6-degree-of-freedom"</p> <p>17 has been changed to "3-D." But other than that, the</p> <p>18 remainder of it is the same sentence.</p> <p>19 Q. Okay. Let's take a look at some other parts of the</p> <p>20 '96 application now. On Slide 29, you see here that</p> <p>21 this is a discussion of the rotatable collet. Right?</p> <p>22 A. Yes.</p> <p>23 Q. And you described this, I think, as being like a</p> <p>24 collar around the trackball, correct?</p> <p>25 A. That's correct.</p>
<p style="text-align: right;">Page 1356</p> <p>1 Q. Right.</p> <p>2 A. -- appears in both places.</p> <p>3 Q. But technically the exercise as it relates to the</p> <p>4 '700 patent is in comparing the claims to the</p> <p>5 specification. You understand that?</p> <p>6 A. Right.</p> <p>7 Q. So, the questions I've asked you about what's in</p> <p>8 the '700 patent, you understand that I've been showing</p> <p>9 you quotations out of the patent specification.</p> <p>10 A. Right.</p> <p>11 Q. Which should be the same as what's in the</p> <p>12 application.</p> <p>13 A. Right.</p> <p>14 Q. But since the exercise is a comparison of the claim</p> <p>15 to the specification for purposes of the '700 patent, I</p> <p>16 just want to make sure I haven't created any confusion.</p> <p>17 You're with me, right?</p> <p>18 A. Right. I understand that. I am relying on your</p> <p>19 representation -- and I believe it's correct -- that the</p> <p>20 '700 patent has the same specification -- these parts of</p> <p>21 it -- as -- not in the claims but this part of it, the</p> <p>22 relevant part, as it did in 2000. I believe that's the</p> <p>23 case.</p> <p>24 Q. Okay. We were talking about claim 14 and things</p> <p>25 that it requires. One of the things that claim 14</p>	<p style="text-align: right;">Page 1358</p> <p>1 Q. I guess we've also heard it referred to as a</p> <p>2 "collet," a "collar," a "cup"; but all the same thing</p> <p>3 we're talking about, right?</p> <p>4 A. Right. Those words all describe that same shape</p> <p>5 that's the element that's directly around the ball.</p> <p>6 Q. Okay. And Mr. Armstrong informed readers of his</p> <p>7 '96 application, didn't he, that the rotatable collet</p> <p>8 can serve as an additional secondary input member for</p> <p>9 whatever use may be desired by a software designer or</p> <p>10 end user. Did you read that, sir?</p> <p>11 A. Yes.</p> <p>12 Q. And he disclosed the same thing when he got the</p> <p>13 specification for his '700 patent, didn't he?</p> <p>14 A. Yes, he did.</p> <p>15 Q. You testified at some length this morning about</p> <p>16 your opinion about the requirement in the '96</p> <p>17 application of a single input member movable in 6</p> <p>18 degrees of freedom, correct?</p> <p>19 A. Yes.</p> <p>20 Q. A single input member. Let's take a look at</p> <p>21 Slide 30. We've seen this before. We've seen the</p> <p>22 colored portion before. But do you remember this part</p> <p>23 of the 1996 application --</p> <p>24 A. Yes, I do.</p> <p>25 Q. -- where it says that the rotatable collet can</p>

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<p style="text-align: right;">Page 1359</p> <p>1 serve as an additional secondary input member? That's</p> <p>2 what the language we just read is referring to, isn't</p> <p>3 it?</p> <p>4 A. Right.</p> <p>5 Q. And turning on the same issue to the '700 patent,</p> <p>6 same figure, same language, correct?</p> <p>7 A. That's correct.</p> <p>8 Q. Both of them in which Mr. Armstrong made clear that</p> <p>9 the collet can serve as a secondary input member,</p> <p>10 correct?</p> <p>11 A. That's correct.</p> <p>12 Q. Let's take a look at some more language from the</p> <p>13 '96 application on this issue of a single input member.</p> <p>14 In '96 Mr. Armstrong disclosed to the Patent Office the</p> <p>15 embodiment shown in Figure 8 is also shown with two</p> <p>16 thumb select switches and two finger select switches,</p> <p>17 secondary input members.</p> <p>18 Do you see that?</p> <p>19 A. Yes, I do.</p> <p>20 Q. And do you see that in the '700 patent</p> <p>21 specification, he tells us that the embodiment shown in</p> <p>22 Figure 8 is also shown with two thumb select switches</p> <p>23 and two finger select switches, which he tells us are</p> <p>24 secondary input members.</p> <p>25 Do you see that, sir?</p>	<p style="text-align: right;">Page 1361</p> <p>1 ask you about it. But this is sort of my opportunity to</p> <p>2 focus our attention narrowly on the point that I want to</p> <p>3 make here.</p> <p>4 Doesn't he tell us here that the</p> <p>5 joystick-type controller may be manipulable or operable</p> <p>6 in up to 6 degrees of freedom?</p> <p>7 A. Yes. But in the context, that doesn't mean what</p> <p>8 you're implying it means.</p> <p>9 Q. Well --</p> <p>10 A. What it means is it's comparing --</p> <p>11 Q. Don't you understand, sir, that "up to" generally</p> <p>12 means you can have at least that many but you may have</p> <p>13 less?</p> <p>14 A. In general. But you have to read the sentence</p> <p>15 before it and the sentence after it, which is the</p> <p>16 context of the comparison between the joystick handle</p> <p>17 and the trackball handle. And I think just taking that</p> <p>18 quote out without the sentences around it makes a</p> <p>19 suggestion that is really incorrect.</p> <p>20 Q. Are you familiar with this quotation from the</p> <p>21 specification of the '700 patent where Mr. Armstrong</p> <p>22 informs us that the controllers in preferred</p> <p>23 embodiments, while not restricted or required to be full</p> <p>24 6 degrees of freedom -- do you see that?</p> <p>25 A. Yes.</p>
<p style="text-align: right;">Page 1360</p> <p>1 A. Yes, I do see that.</p> <p>2 Q. And if we go to the next slide, you see that in the</p> <p>3 discussion of the single input members, Mr. Armstrong</p> <p>4 told the Patent Office in his '96 application that the</p> <p>5 auxiliary secondary input buttons -- select, fire</p> <p>6 buttons, special function keys, et cetera -- are readily</p> <p>7 integrated. Do you see that?</p> <p>8 A. Yes, I do see that.</p> <p>9 Q. And not to read it over again; but he said the same</p> <p>10 thing in his '700 specification, didn't he?</p> <p>11 A. Yes.</p> <p>12 Q. Let's take a look at another section of the</p> <p>13 application and of the '700 patent. Here Mr. Armstrong</p> <p>14 was talking about how the input member can be operable.</p> <p>15 Now, you understand what he's referring to</p> <p>16 here as the input member, don't you, the joystick-type</p> <p>17 controller?</p> <p>18 A. I do. But your quotation there, in the clipping of</p> <p>19 it, I think, is mischaracterizing it.</p> <p>20 Q. The clipping of it mischaracterizes it?</p> <p>21 A. Yeah. There's more to it -- you need the context</p> <p>22 around it to understand what that sentence is talking</p> <p>23 about.</p> <p>24 Q. Well, let me ask you what I have up here first.</p> <p>25 I'm sure if the context is helpful, your counsel will</p>	<p style="text-align: right;">Page 1362</p> <p>1 Q. Do you understand that he's telling us there that</p> <p>2 you can have a controller that's up to 6 degrees of</p> <p>3 freedom but it's not required to have that many?</p> <p>4 A. Yes. That's present in the '700 specification from</p> <p>5 2000.</p> <p>6 Q. And let's look at Slide 35. Do you see here in the</p> <p>7 '96 application where Mr. Armstrong told the Patent</p> <p>8 Office: This structuring also offers tremendous</p> <p>9 advantage in many non 6 DOF applications.</p> <p>10 Do you see that, sir?</p> <p>11 A. Yes, I do.</p> <p>12 Q. And do you see that the same language is contained</p> <p>13 in the specification of the '700 patent?</p> <p>14 A. Yes, I do.</p> <p>15 Q. Now, let's go back to Figure 2 of the patent.</p> <p>16 MR. CAWLEY: Or maybe it's on a slide and we</p> <p>17 just need to pull it up.</p> <p>18 BY MR. CAWLEY:</p> <p>19 Q. You remember this, don't you?</p> <p>20 A. Yes, I do.</p> <p>21 Q. And this Figure 2 in the '96 application -- this is</p> <p>22 actually Figure 2 from the patent but that's -- let me</p> <p>23 do it backwards.</p> <p>24 This is Figure 2 from the '700 patent,</p> <p>25 correct?</p>

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<p style="text-align: right;">Page 1363</p> <p>1 A. That's correct.</p> <p>2 Q. But this same figure is also Figure 2 in the '96</p> <p>3 application, correct?</p> <p>4 A. Yes, it is.</p> <p>5 Q. Okay. And you have told the jury that the '96</p> <p>6 specification does not show multiple input members that</p> <p>7 together provide 6 degrees of freedom, haven't you?</p> <p>8 A. I'm not sure that's an exact quote, and I think</p> <p>9 that may be a mischaracterization of what I said.</p> <p>10 Q. In what way?</p> <p>11 A. Well, I think we went through this in detail, that</p> <p>12 there is a 6-degree-of-freedom input element 12 that</p> <p>13 moves in a full 6 degrees of freedom and that there is a</p> <p>14 second collet around it that rotates -- that's a second</p> <p>15 input element -- and that it moves back and forth with</p> <p>16 the ball. And we had lengthy testimony on that. But I</p> <p>17 think that that would more accurately characterize my</p> <p>18 description of that than what you --</p> <p>19 Q. Okay. And you haven't talked to any Nintendo</p> <p>20 engineers about that?</p> <p>21 A. About that?</p> <p>22 Q. What you just said --</p> <p>23 A. The trackball --</p> <p>24 Q. What you just said or this figure.</p> <p>25 A. No.</p>	<p style="text-align: right;">Page 1365</p> <p>1 A. Well, you're asking me to comment on testimony I</p> <p>2 haven't seen.</p> <p>3 Q. Would you like to see it, sir?</p> <p>4 A. If you'd like, if you think it would be helpful.</p> <p>5 MR. CAWLEY: May we play that brief clip of</p> <p>6 the deposition, your Honor?</p> <p>7 THE COURT: It's your time.</p> <p>8 MR. CAWLEY: Okay.</p> <p>9 BY MR. CAWLEY:</p> <p>10 Q. Let's see Mr. Koshiishi's testimony on this</p> <p>11 subject.</p> <p>12 (The following testimony was presented by</p> <p>13 video.)</p> <p>14 Question: Figure 2 of the '700 patent</p> <p>15 depicts a cross-section of a game controller that is</p> <p>16 described by this patent; is that correct?</p> <p>17 Answer: Yes.</p> <p>18 Question: Now, in the middle of the figure,</p> <p>19 there is a circle that has been labeled with the</p> <p>20 number "12"; is that correct?</p> <p>21 Answer: Yes.</p> <p>22 Question: What is that?</p> <p>23 Answer: It's a ball -- sorry. It's a</p> <p>24 sphere.</p> <p>25 Question: Now, the ball is surrounded by a</p>
<p style="text-align: right;">Page 1364</p> <p>1 Q. Specifically, have you talked to or met</p> <p>2 Mr. Koshiishi?</p> <p>3 A. No. I do not know Mr. Koshiishi.</p> <p>4 Q. Were you in court when Mr. Koshiishi's deposition</p> <p>5 was played?</p> <p>6 A. No, I was not.</p> <p>7 Q. Have you read Mr. Koshiishi's deposition?</p> <p>8 A. No, I have not.</p> <p>9 Q. Are you aware that Mr. Koshiishi talked about</p> <p>10 Figure 2 of the patent and that the jury heard that</p> <p>11 testimony?</p> <p>12 A. No. I didn't see the testimony; so, I don't know</p> <p>13 what he talked about.</p> <p>14 Q. And you're aware that Mr. Koshiishi, a Nintendo</p> <p>15 engineer who had this patent figure in front of him,</p> <p>16 stated that if you remove the cup or collet, that you</p> <p>17 would no longer have a 6-degree-of-freedom controller.</p> <p>18 Are you aware of that?</p> <p>19 A. No, I'm not aware of that testimony; but it's</p> <p>20 incorrect.</p> <p>21 Q. And are you aware that Mr. Koshiishi swore under</p> <p>22 oath in his deposition that if you remove the collet,</p> <p>23 you would not be able to sense movement on the line or</p> <p>24 axis and, instead, you would have remaining a</p> <p>25 3-degree-of-freedom controller?</p>	<p style="text-align: right;">Page 1366</p> <p>1 cup-like structure that has been labeled "16"; is that</p> <p>2 correct?</p> <p>3 Answer: Yes.</p> <p>4 Question: Can you tell from looking at the</p> <p>5 figure whether the structure of the game controller</p> <p>6 allows it to sense the linear movement of the cup?</p> <p>7 Answer: Yes.</p> <p>8 Question: If you moved the cup from the</p> <p>9 controller depicted in Figure 2, you would not be able</p> <p>10 to sense movement on three linear axes; is that correct?</p> <p>11 Answer: No, you wouldn't.</p> <p>12 Question: But if you still had the</p> <p>13 trackball, you would still have a 3-degree-of-freedom</p> <p>14 controller because you could still sense rotational</p> <p>15 movement on three axes; is that correct?</p> <p>16 Answer: Yes.</p> <p>17 Question: Now, conversely, if you did not</p> <p>18 remove the cup but you did remove the trackball, then</p> <p>19 you would still have a 3-degree-of-freedom controller</p> <p>20 except it would be able to measure linear movement on</p> <p>21 three axes and not rotational movement on three axes; is</p> <p>22 that correct?</p> <p>23 Answer: Yes.</p> <p>24 (Video presentation concluded.)</p> <p>25 Mr. Dezmelyk, were you aware of that</p>

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<p style="text-align: right;">Page 1412</p> <p>1 MR. CAWLEY: No, your Honor. We understand. 2 THE COURT: And same with defendants? 3 MR. GUNTHER: Yes, sir. 4 THE COURT: Okay. Please step forward, sir. 5 You remember, of course, sir, that you are still under 6 oath. 7 THE WITNESS: I do. 8 THE COURT: All right. Go ahead. 9 MR. CAWLEY: Thank you. 10 DIRECT EXAMINATION OF ROBERT HOWE 11 CALLED ON BEHALF OF THE PLAINTIFF 12 BY MR. CAWLEY: 13 Q. Professor Howe, why have you returned today? 14 A. Well, I've been listening to the Nintendo experts 15 in the testimony; and I've come to offer some comments. 16 Q. And what is your opinion? 17 A. Well, I'm of the opinion that the '700 patent 18 claims we've been discussing are infringed by the 19 Nintendo controllers; and those claims are entitled to 20 the 1996 priority date. 21 Q. And do you also have an opinion as to whether those 22 claims that have been asserted in this case are 23 supported by the specification of the '700 patent? 24 A. Yes, they are. 25 Q. Let's talk first about accelerometers. We heard a</p>	<p style="text-align: right;">Page 1414</p> <p>1 springs from the corner. Now, this is simplified, 2 again. The real mass is actually a ring, and the 3 springs have a different shape. But this is basically 4 how the device works. 5 And on each side here (indicating), there is 6 a capacitor. And the real structure has finger-shaped 7 structures that move away from the central mass. But 8 they function the way this is shown. 9 Okay. So, as the accelerometer -- I should 10 say as the case of the Wii is moved up and down, we saw 11 from our animation the other day that the mass lags 12 behind a little. So, as the controller goes up, the 13 mass is behind it first, then catches up. And as you go 14 down, the mass is behind, then catches up. 15 BY MR. CAWLEY: 16 Q. Let me interrupt you, Professor Howe; but why don't 17 we go ahead and see that animation. 18 A. Great. 19 Oh, yeah. Here we go. Okay. So, the hand 20 moves -- 21 THE COURT: Is that chart in the way of 22 the -- can all the jurors see the screen? 23 A. So, as the controller moves back and forth, the 24 mass stays in place at first; and then the springs apply 25 enough force that it starts to move and catch up.</p>
<p style="text-align: right;">Page 1413</p> <p>1 good bit of testimony about that yesterday; and then, of 2 course, we heard about it last week, as well. And 3 you've already given us some explanation of 4 accelerometers; so, I don't want to repeat all that. 5 But did you hear Mr. Dezmelyk yesterday testify about 6 the structure of the accelerometer in the Wii Remote? 7 A. Yes, I did. 8 Q. And did you watch him draw a sketch of that? 9 A. Yes. 10 MR. CAWLEY: May I approach the -- 11 THE COURT: You may. 12 MR. CAWLEY: -- easel, your Honor? 13 BY MR. CAWLEY: 14 Q. Does Mr. Dezmelyk's sketch of the accelerometer 15 show the entire internal structure of the accelerometer? 16 A. No. It's greatly simplified, of course. The basic 17 operating principles are there; but there's a lot more 18 going on in the real chip, of course. 19 Q. Could you step down to the easel and explain that 20 to us? 21 A. Certainly. 22 THE WITNESS: Your Honor, may I step down? 23 THE COURT: Please. 24 A. Okay. So, we're recalling Mr. Dezmelyk said there 25 is this mass in the middle; and it's suspended on</p>	<p style="text-align: right;">Page 1415</p> <p>1 Now, that displacement is just what these 2 capacitive sensors measure. So, as we go back and forth 3 here, the mass lags behind. It gets closer to this 4 (indicating) capacitor plate, and that gives it -- the 5 change in capacitance is measured. That change in 6 distance causes a change in capacitance that is 7 measured. Likewise, when it goes the other way, the 8 same thing happens. 9 Now, up and down, once again, the change in 10 distance between this plate here (indicating) and this 11 plate here (indicating) in the mass provides a signal 12 that then can be amplified and sent out of the device. 13 BY MR. CAWLEY: 14 Q. All right. Can you draw with your red pen the 15 capacitors that are inside the accelerometer? 16 A. You bet. (Illustrating.) So, here's one; here's 17 another; here's a third; and here's a fourth. 18 Q. Are these capacitors sensors? 19 A. Yes, they are. 20 Q. Are there two different sets of capacitors? 21 A. Yes. There's one set for the vertical direction, 22 and there's another set for the right/left direction. 23 Q. Okay. Thank you, Dr. Howe. I think you can 24 probably take your seat again. 25 Professor Howe, you've read Mr. Ikeda's</p>

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<p style="text-align: right;">Page 1416</p> <p>1 testimony, have you not?</p> <p>2 A. I have.</p> <p>3 Q. Do you remember who he was?</p> <p>4 A. I'm sorry. What was the question?</p> <p>5 Q. Do you remember who he was?</p> <p>6 A. Yes. He was an engineer from Nintendo, and he was</p> <p>7 one of the people who actually developed the Wii</p> <p>8 controllers.</p> <p>9 Q. And do you remember this testimony that he gave --</p> <p>10 A. I do.</p> <p>11 Q. -- where he was asked: Isn't it true that one set</p> <p>12 of capacitors in the accelerometer is used to detect</p> <p>13 acceleration on the X axis?</p> <p>14 And he answered: The X axis can be measured,</p> <p>15 as well. But at the same time, measurement can take</p> <p>16 place along the Y and Z axes.</p> <p>17 Do you agree with that?</p> <p>18 A. Yes, I do.</p> <p>19 Q. And then there was a question: Yes, sir. That's</p> <p>20 my next question. Isn't it true that a different set of</p> <p>21 capacitors is used to detect acceleration on the Y axis?</p> <p>22 And he answered: Yes, different capacitors</p> <p>23 and probes for the Y axis.</p> <p>24 Do you agree with that?</p> <p>25 A. I do.</p>	<p style="text-align: right;">Page 1418</p> <p>1 Q. Okay. Well, let's go through that just one more</p> <p>2 time. I'll just hold this up.</p> <p>3 MR. CAWLEY: If I may move this easel now,</p> <p>4 your Honor?</p> <p>5 THE COURT: You may.</p> <p>6 MR. CAWLEY: I think it is in the way.</p> <p>7 BY MR. CAWLEY:</p> <p>8 Q. What does the third element require?</p> <p>9 A. Okay. Well, that's about where your hand is; and</p> <p>10 it says: A third element movable on two mutually</p> <p>11 perpendicular axes, said third element structured to</p> <p>12 activate two bi-directional proportional sensors</p> <p>13 providing outputs at least in part controlling objects</p> <p>14 and navigating a viewpoint.</p> <p>15 Q. Now, how does the structure inside the</p> <p>16 accelerometer that Mr. Ikeda testified about and that</p> <p>17 you've told us about satisfy this third element?</p> <p>18 A. Well, let's see. We've talked about the mass in</p> <p>19 the middle there; and that's the third element. And</p> <p>20 we've seen that because of the springs, it can move on</p> <p>21 two mutually perpendicular axes. It can move up and</p> <p>22 down; it can move right and left.</p> <p>23 Then it says: The third element is</p> <p>24 structured to activate two bi-directional proportional</p> <p>25 sensors.</p>
<p style="text-align: right;">Page 1417</p> <p>1 Q. Do you understand that Mr. Ikeda has testified here</p> <p>2 that there are two -- at least two different sets of</p> <p>3 capacitors in the accelerometer?</p> <p>4 A. Yes. That's right.</p> <p>5 Q. And has he testified that they are sensors for</p> <p>6 different things?</p> <p>7 A. That's right.</p> <p>8 Q. Let me show you just a little bit more of his</p> <p>9 testimony.</p> <p>10 Question: So, there are capacitors that</p> <p>11 sense movement in the X axis, correct?</p> <p>12 And he answers: That's correct.</p> <p>13 And there are capacitors that sense movement</p> <p>14 in the Y axis, correct?</p> <p>15 And he answers: That's correct.</p> <p>16 Do you agree with him?</p> <p>17 A. I do.</p> <p>18 Q. And do you understand that Mr. Ikeda has told us</p> <p>19 here that the capacitors that you've drawn on this</p> <p>20 drawing are sensors?</p> <p>21 A. Yes. That's right.</p> <p>22 Q. Now, do these sensors and the associated structure</p> <p>23 that -- the proof mass that you told us about, do these</p> <p>24 meet the third element part of claim 19?</p> <p>25 A. Yes, they do.</p>	<p style="text-align: right;">Page 1419</p> <p>1 Now, those are the capacitors we just talked</p> <p>2 about. And there are two of them, as Mr. Ikeda said and</p> <p>3 as I agreed. There is a set that measures up and down,</p> <p>4 and there is a set that measures left and right. And it</p> <p>5 goes on to say that these sensors provide outputs at</p> <p>6 least in part controlling objects and navigating a</p> <p>7 viewpoint.</p> <p>8 Q. Okay. Let's talk about that. Is the output of the</p> <p>9 accelerometer capable of moving objects and navigating a</p> <p>10 viewpoint?</p> <p>11 A. Yes, it is. And we've seen that, for instance, in</p> <p>12 the boxing game that Mr. Ikeda demonstrated.</p> <p>13 Q. And Mr. Ikeda also testified about what the output</p> <p>14 of this accelerometer is capable of doing, didn't he?</p> <p>15 A. Yes, he did.</p> <p>16 Q. He was asked: Could the game designer choose to</p> <p>17 use the output of the accelerometer to move objects on</p> <p>18 the screen?</p> <p>19 And he answered: Well, just the way you can</p> <p>20 move Mario, if you had a ball-like character, you could</p> <p>21 move that ball in the same way.</p> <p>22 Question: Could a game designer choose to</p> <p>23 use the output of the accelerometer to change the</p> <p>24 player's point of view on the screen?</p> <p>25 And he answered: I think so.</p>

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<p style="text-align: right;">Page 1420</p> <p>1 Do you agree with Mr. Ikeda?</p> <p>2 A. Yes, I do.</p> <p>3 Q. Now, have you seen pictures of the interior</p> <p>4 structure of accelerometers?</p> <p>5 A. Oh, yes, certainly. Many.</p> <p>6 Q. And you're familiar with what the internal</p> <p>7 structure of an accelerometer looks like?</p> <p>8 A. Yes.</p> <p>9 Q. Have you seen a picture of the internal structure</p> <p>10 of the accelerometer in the Nintendo Wii Remote?</p> <p>11 A. Yes, I have.</p> <p>12 Q. And does that picture accurately depict the</p> <p>13 internal structure of that accelerometer?</p> <p>14 A. Yes. As far as I know, it does.</p> <p>15 MR. CAWLEY: Your Honor, at this time we'd</p> <p>16 offer that picture.</p> <p>17 MR. PRESTA: Objection, your Honor. That's</p> <p>18 the hearsay document that we spoke about before. That's</p> <p>19 not a proper predicate. Mr. Howe has previously</p> <p>20 testified that he doesn't know the company that made the</p> <p>21 report or where it came from and he did no verification</p> <p>22 whatsoever regarding the report.</p> <p>23 MR. CAWLEY: It's classic --</p> <p>24 THE COURT: Is this the type of information</p> <p>25 he relies upon?</p>	<p style="text-align: right;">Page 1422</p> <p>1 show what's inside that accelerometer.</p> <p>2 Q. Can you walk us through it?</p> <p>3 A. Sure. Well, again, the key parts here -- the proof</p> <p>4 mass, as I mentioned and as Mr. Dezmelyk said, as well,</p> <p>5 is actually wrapped around this.</p> <p>6 And then here (indicating) you see a bunch of</p> <p>7 these parallel lines, and you can see the label here.</p> <p>8 It says "Y capacitors." So, these are the ones that</p> <p>9 sense motion, actually in this direction (indicating).</p> <p>10 Over here (indicating) we see something</p> <p>11 labeled "X capacitors"; and, again, those sense motion</p> <p>12 in this direction (indicating).</p> <p>13 So, we have two sets of capacitors shown as</p> <p>14 structures within this device.</p> <p>15 Q. So, is this actually a picture of the two separate</p> <p>16 capacitors in the Wii Remote accelerometer?</p> <p>17 A. That's correct.</p> <p>18 Q. And are they sensors?</p> <p>19 A. Yes, they are.</p> <p>20 Q. And do they satisfy the elements that you just</p> <p>21 described to us of this third element claim in the '700</p> <p>22 patent?</p> <p>23 A. Yes. They match the description given in the</p> <p>24 claim.</p> <p>25 Q. Thank you.</p>
<p style="text-align: right;">Page 1421</p> <p>1 BY MR. CAWLEY:</p> <p>2 Q. Is this the type of information that you, as an</p> <p>3 expert, would typically rely on in this case?</p> <p>4 A. Yes. And Mr. Dezmelyk cited it, as well.</p> <p>5 THE COURT: Under exception 18 of the hearsay</p> <p>6 rule, I'll allow him to display it and discuss it in</p> <p>7 front of the jury. The photo itself is not an exhibit.</p> <p>8 It may be discussed --</p> <p>9 MR. CAWLEY: Thank you, your Honor.</p> <p>10 THE COURT: -- and shown to them.</p> <p>11 MR. PRESTA: Thank you.</p> <p>12 THE COURT: And there are cases allowing</p> <p>13 videos, photos in addition to text in such a situation.</p> <p>14 BY MR. CAWLEY:</p> <p>15 Q. All right. Can you show us that picture?</p> <p>16 A. Yep. There it is.</p> <p>17 Q. Do you have a laser pointer?</p> <p>18 MR. CAWLEY: Or can we find one?</p> <p>19 A. I do not. I would appreciate it.</p> <p>20 MR. CAWLEY: May I approach, your Honor?</p> <p>21 THE COURT: You may.</p> <p>22 BY MR. CAWLEY:</p> <p>23 Q. Professor Howe, what is this?</p> <p>24 A. Well, this is sort of an extreme close-up taken</p> <p>25 with a special microscope, an electron microscope, to</p>	<p style="text-align: right;">Page 1423</p> <p>1 Professor Howe, do you consider the Wii</p> <p>2 Nunchuk, when it's connected to the Wii Remote, as a</p> <p>3 hand-operated controller?</p> <p>4 A. Yes, certainly.</p> <p>5 Q. And why is that?</p> <p>6 A. Well, you can't use the Wii Nunchuk by itself. You</p> <p>7 have to use it in combination with the Wii Remote.</p> <p>8 Q. And why does that make a difference?</p> <p>9 A. Well, since you can't use it by itself, it's really</p> <p>10 one device when you hook them up.</p> <p>11 Q. And have you reviewed the testimony of anyone from</p> <p>12 Nintendo in coming to this conclusion?</p> <p>13 A. Yes, a number of the engineers there.</p> <p>14 Q. Did you consider the testimony of Mr. Takeda?</p> <p>15 A. Yes.</p> <p>16 Q. And what did he say about that?</p> <p>17 A. Well, he said exactly that point, that the Wii</p> <p>18 Remote -- I'm sorry -- the Wii Nunchuk is really an</p> <p>19 extension of; it is really part of the Wii Remote and</p> <p>20 they make one controller when used together.</p> <p>21 Q. Is this a deposition of Mr. Takeda that you</p> <p>22 considered in arriving at your opinion?</p> <p>23 A. Yes, it is.</p> <p>24 Shall I read it?</p> <p>25 Q. Sure. Go ahead.</p>

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<p style="text-align: right;">Page 1424</p> <p>1 A. Okay. So, the question: Mr. Takeda, in front of 2 you are two objects that have been labeled 295 and 296. 3 What is Exhibit 295? 4 Answer: We call it the "Wii Remote 5 controller"; so, it's the controller for the Wii video 6 game. 7 Question: And what's Exhibit 296? 8 Answer: Well, this is part of the Wii Remote 9 control. Exhibit 295, one holds in the right hand. 10 Exhibit 296 is the Wii extension which is plugged in 11 here -- 12 The Interpreter: And the witness pointed to 13 plugging into the Wii Remote. 14 It goes on and the answer continues: -- and 15 is held in the left hand. So, it's an extension of the 16 controller for the Wii. 17 Question: Now, to use the Nunchuk, you have 18 to plug it into the Wii Remote, correct? 19 Answer: Yes, the Nunchuk does not exist as a 20 stand-alone product. The Nunchuk depends on the Wii 21 Remote. It operates when attached to the Wii Remote. 22 Q. So, what do you think is the significance of that 23 testimony? 24 A. Well, I think it makes it clear that the Nunchuk 25 and the Remote together constitute one controller. The</p>	<p style="text-align: right;">Page 1426</p> <p>1 MR. PRESTA: Objection, your Honor. This is 2 going outside the scope of his expert report, as we 3 spoke about earlier, when he was going to testify on 4 this issue. In particular, claim 19. 5 MR. CAWLEY: Well, I can refer your Honor to 6 the sections of his report where he offers this opinion. 7 MR. PRESTA: There is no opinion. 8 THE COURT: Since it is in rebuttal, I'll 9 overrule it. 10 BY MR. CAWLEY: 11 Q. Have you come to any opinions regarding the 12 priority date of the asserted claims? 13 A. Yes, I have. 14 Q. What are your opinions? 15 A. My opinion is that the asserted claims are 16 supported by and deserve the priority date of the 1996 17 application. 18 Q. How did you come to that conclusion? 19 A. Well, it's important to compare the claims, the 20 claim limitations, the terms in the claim to the 21 original application and make sure that they're there, 22 they're supported, and also to look at the disclosure, 23 the figures and words in the beginning of the actual 24 '700 patent and make sure that the claims are supported 25 there, as well.</p>
<p style="text-align: right;">Page 1425</p> <p>1 Nunchuk by itself is not a controller. 2 MR. CAWLEY: May I approach, your Honor? 3 THE COURT: You may. 4 BY MR. CAWLEY: 5 Q. Professor Howe, is what I've just handed you the 6 Wii Remote connected to a Nunchuk? 7 A. That's right. This is the Remote (indicating), 8 this is the Nunchuk (indicating). 9 Q. Does it matter to your opinion that this is one 10 controller that you need two hands to hold it? 11 A. No, certainly not. Most of the controllers that 12 we've seen use two hands so -- for instance, the 13 Nintendo GameCube uses two hands. The Sony DualShock 14 uses two hands; Microsoft Xbox; going back to older 15 controllers, the Atari. So, two-handed operation is 16 typical for video game controllers nowadays. 17 Q. Have you, Professor Howe, in the course of your 18 work in this case -- have you studied the 1996 19 application? 20 A. Certainly, yes. 21 Q. And have you studied the asserted claims of the 22 '700 patent? 23 A. I have. 24 Q. Have you come to any opinions regarding the 25 priority date of the asserted claims?</p>	<p style="text-align: right;">Page 1427</p> <p>1 Q. And when you were studying the disclosure in 1996, 2 from what perspective did you read it? 3 A. Right. Well, you have to analyze this in terms of 4 one skilled in the art. 5 Q. What do you mean by that? 6 A. Well, my understanding -- it's a legal term. My 7 understanding is that what matters is not what somebody 8 off the street might think; you have to look at this 9 through the eyes of someone who understands this 10 material, who works in the field, and who would be able 11 to apply the teachings in the patent. 12 Q. How do you know if someone is skilled in the art or 13 not? 14 A. Well, in general that's a complicated question; 15 and, of course, it varies from patent to patent. Now, 16 fortunately, Judge Clark here has given us a definition 17 of someone skilled in the art. 18 Q. Do you have that definition with you? 19 A. I do. 20 Okay. So, it reads: The court finds that 21 one of ordinary skill in the art is someone with an 22 equivalent of a four-year degree from an accredited 23 institution, usually denoted in this country as a BS 24 degree, in mechanical or electrical engineering and at 25 least three years experience in designing, developing,</p>

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<p style="text-align: right;">Page 1428</p> <p>1 or improving electronic systems that include sensors 2 and/or controllers for computers, robotics, video games 3 or other electronic devices. He or she should have some 4 familiarity with pressure-sensitive variable conductance 5 material. Extensive experience and technical training 6 might substitute for educational requirements while 7 advanced degrees might substitute for some experience. 8 So, basically this says you need to be 9 somebody with some engineering background who works in 10 this area in order to be someone of skill in the art. 11 Q. And did you follow the court's instruction in 12 reading and then arriving at opinions on the '96 13 disclosure from the perspective of someone like you just 14 described? 15 A. Yes. 16 Q. Now, yesterday you were here for the testimony of 17 Mr. Dezmelyk, right? 18 A. Yes, I was. 19 Q. And based on what you heard and saw during his 20 testimony and the teachings of the 1996 application, are 21 all of the claim requirements found in the '96 22 application? 23 A. Yes, they are. 24 Q. What is disclosed in the '96 application? 25 A. Well, lots of things. It includes many different</p>	<p style="text-align: right;">Page 1430</p> <p>1 A. Yes. Certainly, Mr. Armstrong thought that was one 2 good idea. 3 Q. But is that all it discloses? 4 A. No. Again, there are pressure-sensitive buttons. 5 There are different ways of configuring simple sensors 6 to allow complicated control. There's a lot going on in 7 that patent. 8 Q. And has Mr. Dezmelyk yesterday told us that we 9 should simply disregard everything except the single 10 member of control in 6 degrees of freedom? 11 A. Well, I believe that was his, you know, big 12 message, if you will. But I believe he also pointed out 13 that there are a lot of different ideas there. 14 Q. Okay. Well, let's take a look at what he told us. 15 Here's some testimony from Mr. Dezmelyk from 16 yesterday. There was a question -- and I won't read it 17 all; but I'll just start here, that second paragraph: 18 Now, when you began your testimony about that subject, 19 you went through the '96 application; and you 20 testified -- and I'm not trying to put words in your 21 mouth here, but maybe we can work together to get 22 whatever words you're comfortable with. You testified 23 that in your reading of the '96 application, you believed 24 that the inventions or ideas that Mr. Armstrong 25 disclosed was a single input member that could control</p>
<p style="text-align: right;">Page 1429</p> <p>1 ideas. We've heard the word "warehouse patent" and I 2 think that may have been a bit overused, but I think 3 that's not a bad description. So, in addition, we've 4 heard a lot about a one input member controller moving 5 in 6 degrees of freedom; and that's certainly there. 6 Certainly, Mr. Armstrong thought that was an important 7 idea. But he talks about a lot of other ideas, as well. 8 So, for instance, he talks about how to use 9 flexible circuit sheets in order to make the 10 manufacturing of these devices less expensive and more 11 reliable. 12 He talks about these interesting little 13 rocker devices and how they can be configured to either 14 activate unidirectional sensors or bi-directional 15 sensors. There are a lot of different ideas in there; 16 and I think that's shown, for instance -- so far we've 17 been looking at roughly five or six figures that we've 18 shown you again and again; whereas, the actual 19 application, I believe, has 50 figures. So, there are 20 many different ideas present in that patent application. 21 Q. Let me make sure we understand what you just said, 22 Professor Howe. You've agreed with Mr. Dezmelyk -- I 23 think I just heard you say -- that the '96 application 24 does disclose a single member control with 6 degrees of 25 freedom. Is that correct?</p>	<p style="text-align: right;">Page 1431</p> <p>1 degrees of freedom. Is that accurate? 2 And the answer was: Well, I think it's 3 important that we have a very clear sort of definition 4 of what that is because, first off, there is a number of 5 things described in that application. Some of them are 6 not relevant to this litigation. 7 And the next question: Okay. And you said 8 that this morning. 9 And then he went on: There are also a lot of 10 descriptions of the particular details of the idea, like 11 some sheet connections, some ways of mounting 12 proportional buttons, and so forth. Not all of those 13 are necessarily related to this, either. So, I don't 14 want to appear that I'm characterizing his invention in 15 some kind of very simple, narrow-minded way. I'm saying 16 that relative to the claims we're talking about here, 17 there are certain key aspects of that invention. The 18 scope of the invention -- it would be inappropriate to 19 try and look at every idea that was in the whole 20 application. We could be here for days. 21 Now, Professor Howe, we've already been here 22 for days. 23 A. Yes, we have. 24 Q. But I'm sure we would all agree it would be not a 25 good idea to be here for days more. So, give us a</p>

<p style="text-align: right;">Page 1432</p> <p>1 shortcut. Do you agree that it's inappropriate to look 2 at every idea in the application? 3 A. Well, in analyzing these questions of validity and 4 support, yes, you do have to take the whole patent into 5 account. You can't just focus on one of the good ideas 6 in there and say that's the only thing in the patent. I 7 agree with this statement from Mr. Dezmelyk. There are 8 a lot of ideas in there, and we need to consider the 9 whole patent in addressing this question of validity and 10 priority date. 11 Q. So, from reading the whole specification and the 12 whole disclosure in 1996, do you have an opinion as to 13 whether Brad Armstrong only taught using the technology 14 disclosed in the '96 application with a single input 15 member with 6 degrees of freedom? 16 A. No, I don't. He talks about many ideas, and 17 there's nothing in there that limits it to that one 18 idea. Certainly that was an important idea in there, 19 but there are other ideas -- and I think we've seen a 20 number of those examples -- where it's clear the scope 21 is larger than just that one single idea. 22 Q. Okay. And just -- since all of this is being 23 written down, I sometimes, I guess, get a little 24 paranoid about how it's going to look. I think that the 25 long convoluted question that I just asked you was</p>	<p style="text-align: right;">Page 1434</p> <p>1 can -- (indicating) is the handle that the user would 2 grab. You see there are a couple of little buttons here 3 (indicating). 4 Then underneath is this set of rockers 5 (indicating) and the carriage and the sensors mounted on 6 the circuit sheet and so on. 7 Q. So, is it true that in his application, one of the 8 things that Mr. Armstrong discussed in connection with 9 this figure was the possibility and even some advantages 10 of a controller with a single input member that operated 11 in 6 degrees of freedom? 12 A. Yes, that's right. 13 Q. But is that all he discussed? 14 A. No, not at all. 15 So, again, there are some useful ideas about 16 clever ways of configuring input elements so that they 17 can activate a number of different kinds of sensors in 18 clever ways. There are extra buttons here. So, there 19 are extra input elements here, as well. 20 Q. Would one of skill in the art reading this 21 application in 1996 and looking in this Figure 20 say to 22 themselves, "Oh, this patent teaches the use of a single 23 input member controlling 6 degrees of freedom"? 24 A. Well, that's one of the things it teaches; but they 25 would also see a lot of other interesting and useful</p>
<p style="text-align: right;">Page 1433</p> <p>1 whether you had an opinion; and you started off your 2 answer "No, I don't." So -- 3 A. Okay. 4 Q. You have an opinion about that? 5 A. I do have an opinion. 6 Q. And that's the opinion you've just told us? 7 A. That's right, that the material in the patent is 8 broader than a single input 6-degree-of-freedom device; 9 and this supports the claims, as we've been discussing 10 them, from the '700 patent. 11 Q. Now, you heard Mr. Dezmelyk yesterday say that the 12 application in '96 was limited to single input members 13 operating in 6 degrees of freedom, correct? 14 A. Yes. He said that. 15 Q. And you've just told us you disagree with that; is 16 that right? 17 A. That's right. I do. 18 Q. All right. Let's look at a few figures. And as 19 you've correctly told us, we've seen most of these 20 before. So, I don't want to spend a lot of time on 21 them; but I do want to be clear here about your opinion. 22 Let's look at Figure 20. 23 This is the exploded drawing. Tell us again 24 what's shown here. 25 A. Sure. Well, up at the top -- let me point, if I</p>	<p style="text-align: right;">Page 1435</p> <p>1 teachings concerning other parts of this device. 2 Q. And, Professor Howe, is it your understanding that 3 the scope of what was disclosed in 1999 is limited by 4 any one of the 50 drawings in the '98 -- excuse me -- 5 the '96 disclosure? 6 A. No. No one drawing specifies the scope of the 7 entire patent. 8 Q. In fact, are you familiar with figures or 9 statements in the '96 application that show that 10 Mr. Armstrong's technology was not limited to a single 11 input member operable in 6 DOF? 12 A. Yes. 13 Q. Can you show us one? 14 A. Sure. 15 So, here are a couple of quotes. The first 16 one is from the '96 application, page 13; and it says: 17 The input member of the joystick-type controller may be 18 manipulable or operable in up to 6 degrees of freedom. 19 Q. And what do you understand that to mean as relates 20 to this issue? 21 A. Sure. Well, "up to 6 degrees of freedom" means it 22 could be less than 6 degrees of freedom or it could be 23 6 degrees of freedom. It's pretty clear. 24 Q. Okay. And while we're at it, just so I won't have 25 to come back to it, is similar language included in the</p>

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<p style="text-align: right;">Page 1436</p> <p>1 '700 patent quoted here below?</p> <p>2 A. Yes, it is. So, here from the '700 patent on</p> <p>3 page 2, we have: Hand-operated controllers, providing</p> <p>4 up to 6 degrees of freedom.</p> <p>5 So, the same language, "up to 6 degrees of</p> <p>6 freedom"; so, it could be less. Certainly that was</p> <p>7 contemplated both in the '96 application and in the</p> <p>8 final '700 patent.</p> <p>9 Q. Okay. Well, if the '96 application disclosed</p> <p>10 members that move in less than 6 degrees of freedom,</p> <p>11 what does that say to you about Nintendo's claim that</p> <p>12 that's all Mr. Armstrong disclosed was members that move</p> <p>13 in 6 degrees of freedom?</p> <p>14 A. Well, it's not correct. They're trying to narrow</p> <p>15 it down to something that is much broader in the actual</p> <p>16 patent and application.</p> <p>17 Q. Anything else you can show us from the application</p> <p>18 that shows that something other than a single controller</p> <p>19 in 6 degrees of freedom was disclosed?</p> <p>20 A. Certainly. Can I have the next slide?</p> <p>21 Q. Let's take a look at the next slide.</p> <p>22 What are we looking at here?</p> <p>23 A. Okay. So, this -- the top quote is from the '96</p> <p>24 application on page 48. It says: This structuring also</p> <p>25 offers tremendous advantage in many</p>	<p style="text-align: right;">Page 1438</p> <p>1 the elements we've seen before, the idea of a trackball,</p> <p>2 the idea of this collar you can move with your fingers,</p> <p>3 and then a number of buttons as well. So, there are a</p> <p>4 lot of different input modes here.</p> <p>5 Q. Do you remember yesterday when Mr. Dezmelyk</p> <p>6 testified about the early Nintendo controller?</p> <p>7 A. Yes.</p> <p>8 Q. I think it's still in front of you there. Is it</p> <p>9 not?</p> <p>10 A. No. These are -- oh, no. It is, yes. Here it is.</p> <p>11 Q. Could you hold that up for the jury?</p> <p>12 A. Sure, yep (complying).</p> <p>13 Q. Do you remember that Mr. Dezmelyk testified that</p> <p>14 the cross-shaped, or what we've heard called as the</p> <p>15 "directional pad," and every one of the buttons on that</p> <p>16 controller are separate input members?</p> <p>17 A. That's right. The way you use this thing is you'd</p> <p>18 hold it in two hands, and you could use your thumbs to</p> <p>19 hit the buttons and the cross pad or D-pad.</p> <p>20 Q. So, if Mr. Dezmelyk says that in the Nintendo</p> <p>21 controller every one of those buttons is a separate</p> <p>22 input member, is there any reason why, in Figure 9</p> <p>23 disclosed by Mr. Armstrong in 1996, his buttons aren't</p> <p>24 also separate input members?</p> <p>25 A. No. They certainly seem to be input members to me.</p>
<p style="text-align: right;">Page 1437</p> <p>1 non-6-degree-of-freedom applications.</p> <p>2 So, there he's telling us that the way of</p> <p>3 putting this particular bit together is also useful in</p> <p>4 situations where there aren't 6 degrees of freedom.</p> <p>5 Again, the scope is larger than just that single input</p> <p>6 6-degree-of-freedom idea.</p> <p>7 And the lower quote is from the actual '700</p> <p>8 patent, column 29; and it says: This structuring also</p> <p>9 offers tremendous advantage in many</p> <p>10 non-3-degree-of-freedom applications. So, same thing.</p> <p>11 Here it says you don't have to have 3 degrees of freedom</p> <p>12 in order to -- or 3-D -- I'm sorry -- you don't have to</p> <p>13 have 3-D in order to take advantage of the ideas here.</p> <p>14 Q. And is there disclosure in the '96 application that</p> <p>15 discloses not just a single input member but multiple</p> <p>16 input members?</p> <p>17 A. Yes, certainly.</p> <p>18 Q. Can you show us that?</p> <p>19 A. Sure.</p> <p>20 Well, this is from the '96 application. You</p> <p>21 can find it on page 61. It's Figure 9. And it shows</p> <p>22 this idea again of a trackball and a surrounding collar</p> <p>23 and then a number of buttons for a wireless remote</p> <p>24 controller.</p> <p>25 So, this is a way of combining a couple of</p>	<p style="text-align: right;">Page 1439</p> <p>1 Q. Let's take a look at the next slide. Tell us what</p> <p>2 we see here from the '96 application on top and the '700</p> <p>3 patent below.</p> <p>4 A. Okay. So, the top quote again is from the '96</p> <p>5 application on page 28; and it talks in here about two</p> <p>6 finger select switches which are secondary input</p> <p>7 members.</p> <p>8 So, again, this is clearly labelling them as</p> <p>9 input elements.</p> <p>10 Q. Okay. And the next slide?</p> <p>11 A. I should add, down below on that --</p> <p>12 Q. Sorry.</p> <p>13 A. -- last slide, we also have the same words from the</p> <p>14 '700 patent in Column 14.</p> <p>15 Q. Thank you.</p> <p>16 If we could go to the next slide, then, what</p> <p>17 do we -- I don't want to spend a lot of time on these,</p> <p>18 but what do we see here?</p> <p>19 A. The words here from the '96 application, page 40,</p> <p>20 are: Auxiliary secondary input buttons.</p> <p>21 So, again more inputs.</p> <p>22 And below are the same words which add: Are</p> <p>23 readily integrated into the controller from the '700</p> <p>24 patent, column 23.</p> <p>25 Q. Okay. And the next slide?</p>

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<p style="text-align: right;">Page 1440</p> <p>1 A. Okay. So, from the '96 application, page 58, here 2 we see Figure 6, a figure we're all familiar with by 3 now. And this describes two input elements. The text 4 here from the '96 application, page 27, it says: The 5 Trackball 12 input member -- so, that's the round thing 6 in the center, of course. 7 And then down below: The rotatable collet 8 can serve as an additional secondary input member. 9 And that's the thing that's colored yellow 10 there, Number 16 in the figure. 11 Q. All right, sir. And while we're on this figure -- 12 and I think we are done with showing these slides 13 related to secondary input member as opposed to single 14 input member. 15 But I notice here some language just outside 16 the highlighting, starting with the sentence: Further, 17 the Trackball 12 input member may be interpretable on 18 all six axes. 19 Do you see that? 20 A. I do. 21 Q. As one of skill in the art reading this, what have 22 you understood that the word "may" here implies? 23 A. Well, when he says "may be interpretable on all six 24 axes," he's saying you could interpret or sense the 25 motion on all 6 degrees of freedom there; but you don't</p>	<p style="text-align: right;">Page 1442</p> <p>1 the trackball piece and the collet or collar piece, 2 could be separated. For instance, they could be moved 3 to different parts of the controller. They each could 4 provide fewer than 6 degrees of freedom, and this means 5 you would be able to use them as separate input 6 elements. 7 Q. Yeah. I was mistaken. This is actually the figure 8 that Mr. Koshiishi was testifying about, correct? 9 A. Okay. Yes. It's a different view of the same 10 embodiment, the same example from the patent. 11 Q. Okay. And why is his testimony about this 12 important? 13 A. Well, again, this is a Nintendo engineer; so, 14 someone who is skilled in the art. He has, you know, 15 made his living -- he's been paid for designing video 16 games, and he has said that this constitutes two input 17 elements that could be used in a less than 18 6-degree-of-freedom context. 19 Q. So, how does that affect your opinion? 20 A. Well, it confirms what I said earlier, that we 21 aren't limited here by the disclosure in the '96 22 application or the '700 patent to single input 23 6-degree-of-freedom devices. It's broader than that. 24 THE COURT: All right. Counsel, we're going 25 to go ahead and take a break.</p>
<p style="text-align: right;">Page 1441</p> <p>1 have to. He didn't say "is" interpretable on all six 2 axes; he says "may be." 3 So, again, it's the idea that you can use 4 these ideas in a number of different ways. One of them 5 is this full six axes, 6-degree-of-freedom sentencing; 6 but there are other good ideas, different ways to use 7 this, as well. 8 Q. Now, you've reviewed the testimony of Mr. Koshiishi 9 from Nintendo in Japan, haven't you? 10 A. Yes, I have. 11 Q. And you were here yesterday when I played about a 12 four-minute video clip of his testimony again for the 13 jury during Mr. Dezmelyk's testimony, weren't you? 14 A. Yes. 15 Q. And you remember that Mr. Koshiishi is an engineer 16 for Nintendo and was involved in the development of the 17 Nintendo GameCube controller? 18 A. That sounds right, yes. 19 Q. And did he interpret some figures from the '96 20 application? 21 A. Yes. I think that last figure we were looking at. 22 MR. CAWLEY: Let's put that up again, please. 23 BY MR. CAWLEY: 24 Q. Why was his testimony important? 25 A. Well, we heard him say that the two elements there,</p>	<p style="text-align: right;">Page 1443</p> <p>1 Ladies and gentlemen, I'll ask you to be back 2 at 10:00. 3 (The jury exits the courtroom, 9:44 a.m.) 4 THE COURT: Last night when we were 5 discussing the jury charge, the one open -- I guess 6 there were two open things, but one of them was the 7 burden of proof issue on the priority date. I had 8 drafted the -- the draft that I gave you was based on 9 the Chiron case. Any more discussion on that? 10 MR. BOVENKAMP: Your Honor, we took a hard 11 look at that and tried to figure out whether we were 12 able to come to an agreement with defendant's proposed 13 construction on that issue; and we believe that 14 your Honor's instruction as is is still the most 15 appropriate way to proceed. 16 THE COURT: Well, I mean, I'll accept a 17 better way from either side if there is one. I mean, I 18 obviously don't want to give an instruction that winds 19 up killing your case should you win; and I don't want to 20 give you an instruction that kills your case should you 21 win. So, have you come up with anything at all that 22 would help us out? 23 MR. FARIS: Your Honor, the Power Oasis case 24 does, at this point, seem to be the case. This is 25 the -- we've been looking for any other case which</p>

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<p style="text-align: right;">Page 1444</p> <p>1 addresses this specific issue and have not been able to 2 find one. 3 THE COURT: All right. Do you have a 4 pinpoint cite on the pages that I should be looking at? 5 What about just the citation to the case 6 itself if you don't know the -- 7 MR. FARIS: It's a slip opinion, the one that 8 I have, your Honor. 9 THE COURT: Do you have that somewhere, 10 Betty, the Power Oasis? We had it somewhere in this 11 pile of stuff. 12 MR. FARIS: And, I'm sorry. I don't have a 13 hard copy to hand up. 14 THE COURT: All right. Well, we're going to 15 go ahead and -- everyone needs a break; so, we'll be in 16 recess, then, until ten of. If you find the pinpoint or 17 whatever that would be helpful on that, if you'll let 18 myself or Ms. Chen have it, that would be appreciated. 19 MR. FARIS: Yes, your Honor. On the slip 20 opinion, it begins on page 6. 21 THE COURT: Okay. 22 MR. GUNTHER: Your Honor, was there a second 23 issue you were about to raise? Was it -- 24 THE COURT: Well, if we raise it, we're not 25 going to get a break; so, we can deal with it when the</p>	<p style="text-align: right;">Page 1446</p> <p>1 that we were just talking about. 2 You've just shown us some of the drawings 3 from the application, correct? 4 A. That's right. 5 Q. And you've shown us some of the words or text that 6 was in the '96 application, right? 7 A. That's right. 8 Q. And you've been talking about this whole question 9 raised by Nintendo of whether that application is 10 limited to controllers with a single input member 11 operable in 6 DOF, and I want to ask you: What is your 12 conclusion about that? 13 A. Well, the patent is simply not limited to single 14 input 6-degree-of-freedom controllers; and the claims 15 which do not concern those are -- find support in both 16 the 1996 application and the '700 patent. 17 Q. Is the disclosure in the '96 application limited to 18 a single input member movable in 6 DOF? 19 A. No, it's not. 20 Q. Does it include that? 21 A. Certainly. That's one of the ideas in there, yeah. 22 Q. But why is it not limited to that? 23 A. Well, there's nothing in the text which says that's 24 the only possibility here; and there are other ideas 25 which are clearly stated. We saw some of those</p>
<p style="text-align: right;">Page 1445</p> <p>1 jury comes back. 2 MR. GUNTHER: Let's take a break. 3 (Recess, 9:48 a.m. to 10:00 a.m.) 4 (Open court, all parties present, jury not 5 present.) 6 THE COURT: We had talked about motions for 7 JMOL each way. It would be my preference to go ahead 8 and finish up the evidence. We're going to be having a 9 long break where we're going to be talking about the 10 jury charge and so forth. I would prefer to handle the 11 JMOLs of plaintiff and the renewal by defendant at that 12 time as though they were all timely filed at the precise 13 time they would have been if we had gone ahead and taken 14 breaks and made the jury sit around waiting for us. 15 Any objection from plaintiff? 16 MR. CAWLEY: No objection, your Honor. 17 THE COURT: From defendant? 18 MR. GUNTHER: No, your Honor. 19 THE COURT: Okay. Bring in the jury, please. 20 (The jury enters the courtroom, 10:00 a.m.) 21 THE COURT: All right, Mr. Cawley. 22 BY MR. CAWLEY: 23 Q. Mr. Howe, I just have a couple other topics I want 24 to cover with you; and they are short. But before I go 25 on to the next one, let me just conclude the subject</p>	<p style="text-align: right;">Page 1447</p> <p>1 examples. 2 Q. Okay. Now, let me move from -- move our focus from 3 the '96 disclosure to the specification or the drawings 4 and written description in the actual '700 patent 5 itself. Have you reviewed those? 6 A. Of course. 7 Q. And have you compared them to the claims that are 8 asserted in this case? 9 A. Yes, I have. 10 Q. Do you have an opinion as to whether the asserted 11 claims are supported by the specification of the '700 12 patent? 13 A. Yes, I do. The asserted claims are supported by 14 the '700 patent specification. 15 Q. All right. Now let me ask you about the last 16 subject. Yesterday you heard Mr. Dezmelyk testify about 17 the Wii Classic Controller and what it could do, didn't 18 you? 19 A. Yes, I did. 20 Q. Let's look at a piece of testimony in particular. 21 Yesterday Mr. Dezmelyk was asked this question: Are you 22 aware of any games where both of the joysticks are 23 operable on the Wii Classic Controller? 24 And he answered: No. 25 And then he was asked: Have you read -- did</p>

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<p style="text-align: right;">Page 1448</p> <p>1 you investigate at all to see, in fact, whether there 2 were games that the Wii Classic Controller could be 3 used, for example, to play GameCube games to require 4 actually two joysticks? 5 He answered: Right. I have read that it 6 cannot be done. I certainly have not tried every game 7 in the world. I only tried the games that were in this 8 case. 9 Question: Okay. And you said you read and 10 heard -- and read it could not be done, did I hear? 11 And he answered: Right. My understanding is 12 that it cannot be done. 13 Now, Professor Howe, were you in the 14 courtroom yesterday when Mr. Dezmelyk told this jury 15 that the Wii Classic Controller could not be used to 16 play a game using both of the joysticks? 17 A. I was. 18 Q. Is that true, sir? 19 A. No. I was very surprised to hear him say that. 20 Q. Can you demonstrate to us that it's not true? 21 A. Certainly. 22 MR. CAWLEY: Your Honor, may the witness step 23 down? 24 THE COURT: He may. 25 THE WITNESS: Your Honor, would it be okay if</p>	<p style="text-align: right;">Page 1450</p> <p>1 controlling her motion with that one. 2 Now if I push up, she jumps. And when I push 3 down, she crouches down. 4 So, again, we have a down direction as well 5 as a right and left direction. I'm controlling the 6 character. 7 Now, the right side -- whoops. I hate it 8 when that happens. 9 Okay. Let's get her back up again. Let's 10 not run into any of these catastrophic things. 11 Okay. Now, on this one, if I move to the 12 right, she swings to the right. If I move the left 13 joystick to the left, she swings to the left. 14 If I raise it, she twirls around and jumps 15 up. I push the joystick down, and she crouches down and 16 twirls. So, again, all of the directions on the right 17 thumbstick, I'm controlling the character. So, both 18 thumbsticks are able to do this. 19 Now let's put it in pause mode. Okay? And I 20 caught her in mid stride. Let's find her in a slightly 21 better position. Is that better? I don't know. 22 Okay. Now, on pause mode I can now control 23 the viewpoint. So, for instance, I take the right 24 joystick. I move to the right, and you can see the 25 camera slides right and left. I move up and down, and</p>
<p style="text-align: right;">Page 1449</p> <p>1 I speak loudly and don't use the microphone? I don't 2 quite have three hands. 3 THE COURT: Yes. 4 THE WITNESS: Thank you. 5 A. Okay. So, here we have the Wii Remote and the Wii 6 Classic Controller plugged into it and here we have a 7 game and -- 8 BY MR. CAWLEY: 9 Q. What's the name of the game? 10 A. Let's see. This is Bash Brothers Brawl, I believe. 11 But we're not going to see any actual fighting here. 12 We've set it up at a point where I can move characters 13 around and change viewpoints as required by claim 19 14 without getting into any of the real fisticuffs here. 15 So, let's see. Let me start the game. We're 16 in pause mode right now, and it's not listening to me. 17 Hello? 18 Okay. So, let me start it up here 19 (demonstrating). So, I'm the character on the right. I 20 believe that's Princess Peach, but don't quote me on 21 that one. And I have the two thumbsticks here, and let 22 me show you what I can do. 23 So, for instance, we'll take the left 24 thumbstick. I move left, and she skips to the left. I 25 move right, and she skips to the right. So, clearly I'm</p>	<p style="text-align: right;">Page 1451</p> <p>1 that right joystick moves the camera up and down. 2 I go to the left thumbstick, and I can now 3 rotate the viewpoint and -- by moving it right and left. 4 And if I move it up and down, I'm changing the viewpoint 5 and rotating it around like so. 6 So, both thumbsticks are able to control -- 7 in all the directions they move, they are able to 8 control the character; and they are also able to change 9 the viewpoint, move the camera around. So, this matches 10 the requirements in claim 19 for those second and third 11 elements to do that. 12 Q. Thank you. If you'll take the stand again, sir. 13 So, have you just demonstrated to us, 14 Professor Howe, that contrary to what this Mr. Dezmelyk 15 told us, that the -- on the Wii Classic Controller, both 16 the left and the right joysticks are capable of moving 17 objects on the screen? 18 A. Yes. That's right. 19 Q. And have you also demonstrated to us that on that 20 controller, both the left and the right joysticks are 21 capable of moving the point of view on the screen? 22 A. Yes. That's right. 23 MR. CAWLEY: Thank you, your Honor. I pass 24 the witness. 25 THE COURT: Go ahead, counsel.</p>

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<p style="text-align: right;">Page 1468</p> <p>1 Q. Now I'd like you -- and I'd like you to -- you have 2 the jury notebook. I'd like you to actually refer to 3 the jury notebook and point the jury and myself to the 4 location where you believe those claims are supported in 5 the 1996 application. 6 A. Sure. Well, let's see. There are a number of 7 figures which show many input elements. There are -- 8 for instance, the Remote controller with the trackball 9 element with the -- 10 Q. Excuse me. 11 A. -- collar -- 12 Q. Excuse me, Professor Howe. 13 MR. CAWLEY: Your Honor, I'm sorry. May the 14 witness finish his answer? 15 BY MR. PRESTA: 16 Q. I was just going to ask if you -- along with your 17 answer, when you talk about a figure, if you would tell 18 us what figure you're pointing to in the jury notebook 19 so we could follow along, professor. 20 A. Sure. It will take a second. Forgive me for the 21 delay, but let me find that for you. 22 Okay. Figure 9, for instance -- 23 Q. Okay. Just one second. And I'm not going to 24 interrupt your answer. I just want to make sure that 25 the jury can get there. There's actually page numbers</p>	<p style="text-align: right;">Page 1470</p> <p>1 Q. Are you done with Figure 9? Are you going to -- 2 A. Yeah. We can move on. 3 Q. Okay. Well, I'd like to ask you some questions 4 about Figure 9 -- 5 A. I'm not through with my answer. I'm sorry. I'd 6 like to finish if you -- 7 Q. Okay. Sure. If you want to finish it, go right 8 ahead. 9 A. Okay. So, we look at Figure 20. It's got the 10 handle at the top. We know that top element pivots back 11 and forth in two directions. It's kind of like a D-pad. 12 Then there are also buttons there. Again, that's a 13 three-element case. Now, the shaft of that handle, of 14 course, is hooked up down below to a number of other 15 sensors. 16 So, taken together, we've now seen -- and I 17 can go on, but I want to move along here. You see that 18 we've seen input elements -- more than three input 19 elements on these examples. We've seen that they 20 include more than one multiaxis input element. And, so, 21 to one skilled in the art -- that is, an engineer who is 22 used to building these kind of controllers -- it's clear 23 that you can put this together and it describes the kind 24 of thing that the Nintendo controllers have been 25 configured to do.</p>
<p style="text-align: right;">Page 1469</p> <p>1 on the bottom right-hand page of that book. 2 A. 61. 3 Q. Now, that is -- 4 MR. PRESTA: And perhaps we could pull that 5 up, please. 6 BY MR. PRESTA: 7 Q. Is that the one you're referring to? 8 A. Yes. 9 Q. Okay. Now -- 10 A. May I finish my answer? 11 Q. I'm sorry. Yes, please do. 12 A. Good. 13 Okay. So, here we see the trackball. We've 14 heard testimony from Nintendo engineers saying that 15 could be a 3- or 6-degree-of-freedom input element. We 16 have the collar surrounding. We've seen that could be a 17 three- or six-input element. Then we've also got a 18 bunch of buttons. So, we also have seen, for instance, 19 in Figure 20 -- so, if you flip forward another 11 20 pages, 72 -- 21 Q. Okay. Hold on a minute. 22 A. Sure. 23 Q. If you don't mind, I would like to deal with these 24 one at a time. 25 A. Sure.</p>	<p style="text-align: right;">Page 1471</p> <p>1 Q. Are you done? 2 A. I am. 3 Q. Okay. Thank you. 4 Let's stay on Figure 20. Now, you just said 5 that this provides support for something that had -- you 6 said that these have multiple input members that each 7 provide more than one axis of input. You don't agree 8 with that, do you? 9 A. I don't believe that's what I said here. 10 Q. So, then, you'll agree with me that there's only 11 one input member that provides multiple axes of input? 12 A. Yes. In this example, that's right. 13 Q. Okay. So, if we're talking about the things that 14 contribute to 6 degrees of freedom in this embodiment, 15 there's only one, isn't there? 16 A. Well, no. There are two other input elements. 17 They could be used to, you know, add other degrees of 18 freedom. 19 Q. This ball -- this handle right here (indicating), 20 if these buttons weren't there, does it provide 21 6 degrees of freedom of input? 22 A. If you take the buttons off, yes. 23 Q. Okay. So, now adding the buttons doesn't change 24 the fact that the top piece by itself is a single 25 hand-operable 6-degree-of-freedom device, does it?</p>

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<p style="text-align: right;">Page 1472</p> <p>1 A. No.</p> <p>2 Q. Now, these buttons are just like mouse buttons,</p> <p>3 that you could do anything you want with them, right?</p> <p>4 A. That's right. The controller can do anything --</p> <p>5 I'm sorry -- the game designer can do anything they want</p> <p>6 with them.</p> <p>7 Q. And you, in fact -- haven't you read the</p> <p>8 specification where Mr. Armstrong said that these</p> <p>9 buttons have nothing to do with 6 degrees of freedom?</p> <p>10 A. I don't recall that. I can believe it's in there.</p> <p>11 I don't recall it.</p> <p>12 Q. Did you hear him testify to that?</p> <p>13 A. I wasn't present for much of Mr. Armstrong's</p> <p>14 testimony.</p> <p>15 Q. Do you disagree with the fact that these buttons</p> <p>16 have nothing to do with the 6-degree-of-freedom of</p> <p>17 control?</p> <p>18 A. Well, I agree certainly that the handle itself can</p> <p>19 provide 6 degrees of freedom of control, yes.</p> <p>20 Q. So -- but it's your position that that Figure 20</p> <p>21 actually supports a device that has three bi-directional</p> <p>22 input members that together provide 6 degrees of</p> <p>23 freedom. Is that your testimony?</p> <p>24 A. That's -- Figure 20 is one example or one part of</p> <p>25 the scope of the patent that supports reading claim 19,</p>	<p style="text-align: right;">Page 1474</p> <p>1 right?</p> <p>2 A. That's right.</p> <p>3 Q. Okay. Now show me anywhere in this figure where</p> <p>4 there are two elements that can each move</p> <p>5 bi-directionally to contribute to 6 degrees of freedom</p> <p>6 of input.</p> <p>7 A. Sure. I can show you three, as a matter of fact.</p> <p>8 So, let's see. Up at the top we have the</p> <p>9 handle itself which can tip in two directions, like so</p> <p>10 (indicating).</p> <p>11 Down here (indicating) it can take, for</p> <p>12 instance, the shaft, which interacts with the rockers --</p> <p>13 we saw lots of nice animations of that -- and, so, that</p> <p>14 can move bi-directionally.</p> <p>15 And down at the bottom we have a platform</p> <p>16 here (indicating), and again we saw how that can</p> <p>17 interact with the housing itself to control these two</p> <p>18 rockers (indicating) to provide bi-directional inputs.</p> <p>19 Q. Thank you, professor. So, you're pointing to the</p> <p>20 inside of the things that are all connected to the one</p> <p>21 handle, right?</p> <p>22 A. In this particular case, yes.</p> <p>23 Q. Now, you have asserted that the claims are broad</p> <p>24 enough, though, to cover things where, in fact, you</p> <p>25 would have two additional input members on the outside</p>
<p style="text-align: right;">Page 1473</p> <p>1 yes.</p> <p>2 Q. Now I want you to point to me where the second</p> <p>3 element -- you're familiar with claim 19, right?</p> <p>4 A. I am.</p> <p>5 Q. And the second and third elements you have read on</p> <p>6 these two joysticks that each move bi-directionally,</p> <p>7 right?</p> <p>8 A. That's right.</p> <p>9 Q. And the claim requires that you have these two</p> <p>10 elements that move bi-directionally, right?</p> <p>11 A. That's right.</p> <p>12 Q. And it also requires a third element that can move</p> <p>13 bi-directionally and activate four sensors, right?</p> <p>14 A. I believe that's right, yes.</p> <p>15 Q. Now show me in this figure -- very important</p> <p>16 question. I'd like you to be very clear about it.</p> <p>17 Where in this figure are two elements that can be moved</p> <p>18 by -- each of them bi-directionally?</p> <p>19 And you understand that the buttons don't</p> <p>20 move bi-directionally, right?</p> <p>21 A. That's right.</p> <p>22 Q. The buttons are not bi-directional elements, are</p> <p>23 they?</p> <p>24 A. That's right.</p> <p>25 Q. These things are not bi-directional elements,</p>	<p style="text-align: right;">Page 1475</p> <p>1 that can be operated by the user, haven't you?</p> <p>2 A. Yes. That's right.</p> <p>3 Q. So, the claim scope that you're asserting</p> <p>4 doesn't -- isn't limited to things on the inside.</p> <p>5 You're saying it also covers things on the outside,</p> <p>6 right?</p> <p>7 A. Well, it can include those, yes.</p> <p>8 Q. Does claim 19, the scope that you're asserting,</p> <p>9 cover three things on the outside that the user can</p> <p>10 touch?</p> <p>11 A. Yes, although it covers other things that the user</p> <p>12 can't touch, as well.</p> <p>13 Q. And it covers, though, three things that you can</p> <p>14 touch that each move bi-directionally, right?</p> <p>15 A. Yes. That's right.</p> <p>16 Q. Show me in here where there are three things that</p> <p>17 you can touch that are each moved bi-directionally.</p> <p>18 That's the question that I want you to help me answer,</p> <p>19 and I want you to show where in this figure are there</p> <p>20 three things that the user can touch that can each be</p> <p>21 moved bi-directionally?</p> <p>22 A. We don't have it in this figure.</p> <p>23 Q. Okay. So, just to be clear, Figure 20 does not</p> <p>24 have three elements that the user can touch that can be</p> <p>25 each moved bi-directionally, right?</p>

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1 Q. Me, too.
 2 Now, the court has told us that a controller
 3 is defined as: A device held in the user's hand that
 4 allows hand or finger inputs to be converted into
 5 electrical signals -- and it goes on.
 6 The part I want to focus on is "a device held
 7 in the user's hand."
 8 A. Uh-huh.
 9 Q. Now, you recognize that it says "a device," right?
 10 A. Yes.
 11 Q. And you recognize that it says "the user's hand,"
 12 singular, right?
 13 A. I do.
 14 Q. And you don't dispute that, in fact, to operate
 15 those two things, you have to hold one in one hand and
 16 one in the other, right?
 17 A. Often it's used that way, yes.
 18 Q. Are you telling me there's another way to use the
 19 Wii Remote and the Nunchuk?
 20 A. For instance -- in fact, I think the jury saw this.
 21 We've also talked about the Wii Classic Controller --
 22 Q. I'm not asking you about the Wii Classic
 23 Controller.
 24 A. Yeah. You could hold them in both hands.
 25 Certainly that capability is there -- or hold them in

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1 one hand. That capability is there, as I showed with
 2 the Classic and the Wii Remote earlier.
 3 Q. Is it your position that it only infringes because
 4 you can hold these two things in one hand?
 5 A. No, no. All of these controllers for video games
 6 are, you know, held bi-manually.
 7 Q. And this controller that Nintendo put out is
 8 designed to be held in two hands, right?
 9 A. That's right.
 10 Q. And you operate it by having it in two hands,
 11 right?
 12 A. That's right.
 13 Q. And the court has advised us that the definition of
 14 "controller" that is used for claim 19 is that it's "a
 15 device held in the user's hand," singular. You see
 16 that, don't you?
 17 A. I do.
 18 Q. And as your position, you're telling the jury that,
 19 in fact, when you hold these two things, one in each
 20 hand, that you're holding both of them in a hand. Is
 21 that your position?
 22 A. Yes.
 23 Q. Okay. Now, it also says "a device," singular,
 24 doesn't it?
 25 A. Yes.

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1 Q. It doesn't say "devices," plural.
 2 A. That's right, yep.
 3 Q. And this Wii Nunchuk controller by itself is a
 4 device, isn't it?
 5 A. Yes.
 6 Q. And the Wii Remote controller is a device, isn't
 7 it?
 8 A. Well, wait a second. I'm sorry. I thought the
 9 first question you asked was about the Remote. Did I
 10 mishear?
 11 Q. Well, I'm going to ask you both.
 12 A. Okay.
 13 Q. The Wii Remote is a device, isn't it?
 14 A. Yes.
 15 Q. And the Wii Nunchuk is a device, isn't it?
 16 A. Well, it depends. If it's plugged into the Remote,
 17 then together they form a device. But the Wii Remote by
 18 itself, without the Remote, is a paperweight.
 19 Q. Okay. Let me ask you to do a bit of an analogy.
 20 Do you use Apple computers at all?
 21 A. Not really. A little. My wife has one.
 22 Q. Okay. Are you familiar with -- you could have a
 23 keyboard on an Apple computer?
 24 A. Sure.
 25 Q. And, in fact, Apple also provides input elements

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1 like mice, right, like a mouse?
 2 A. Sure.
 3 Q. And the mouse is a device, isn't it?
 4 A. Sure.
 5 Q. And the keyboard is a device, right?
 6 A. Sure.
 7 Q. And, now, are you aware -- that wouldn't change
 8 your opinion if you plugged the mouse directly into the
 9 computer or if you plugged it into the keyboard, would
 10 it?
 11 A. No. It works both ways.
 12 Q. Okay. So, when you plug the mouse, which is a
 13 device by itself, into the keyboard and the mouse
 14 communicates through the keyboard to the computer,
 15 you're saying that those are still -- those are separate
 16 devices in that example, aren't they?
 17 A. Yes. The mouse can be used in a number of
 18 different ways. It doesn't require the keyboard. You
 19 can use it with a computer. Sure.
 20 Q. Now, but the mouse that I'm talking about is
 21 designed to be plugged into the keyboard and
 22 communicates through the keyboard. You understand that,
 23 right?
 24 A. Well, my understanding is that it provides for a
 25 bunch of different functionality. You know, this is one

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<p style="text-align: right;">Page 1508</p> <p>1 A. That's right. The capacitor plates that are 2 attached to the proof mass are separate; so, you could 3 cut out the proof mass and leave the capacitor plates 4 that are attached to the proof mass and you would still 5 have a capacitive sensor. Wouldn't do you much good, 6 but the pieces would be there. 7 Q. Okay. Now, this is the photograph that you asked 8 to be shown; is that right? 9 A. That's right. It's an electron micrograph. 10 Q. And what did you want to say about that? 11 A. Okay. So -- this is what Mr. Cawley [sic] didn't 12 show me. 13 So, here you see these stripes (indicating) 14 are the Y capacitors; and these stripes are the X 15 capacitors. And all around here in the outside is the 16 proof mass. So, you can see that if you cut it off here 17 (indicating) at this end, you have one set that's 18 attached to the center here. That's the fixed frame -- 19 again, this is inside-out from that drawing that we've 20 been looking at -- and then the proof mass is around the 21 outside. 22 But you'd have one set. Here (indicating) 23 you can see the anchors, these oval-shaped dark things. 24 Those are the anchors where the capacitor plates on the 25 fixed side are located.</p>	<p style="text-align: right;">Page 1510</p> <p>1 A. I do. 2 Q. And then he asked you to go back to this Figure 20 3 and say, well, does this figure show three inputs 4 movable by hand, right? 5 A. He asked me that, yeah. 6 Q. And you said, "No, it doesn't; it shows one." 7 A. That's right. 8 Q. Are you aware, Professor Howe, that it is not the 9 proper way to do it to compare the product back to the 10 '96 application? 11 A. Yes. My understanding is that the proper way to do 12 this is to compare the claims to the product. 13 Q. The claim of the patent, correct? 14 A. That's right. And that's how you determine 15 infringement. 16 Now, there's another question, which is 17 validity -- you know, is the patent valid -- and there 18 what you have to do is compare the claims back to the 19 application and to the current patent text and pictures. 20 Q. All right. 21 A. So, he kind of mixed up two issues there. 22 Q. Instead of comparing that controller where the big 23 point was three hand movable inputs, let's now actually 24 compare the claim. 25 A. Indeed, yeah.</p>
<p style="text-align: right;">Page 1509</p> <p>1 And the other side here (indicating), you see 2 some of these stripes are attached to this checkerboard 3 thing. That's the proof mass. And, so, you could cut 4 them off here (indicating). You could cut off the proof 5 mass, and you'd leave behind both sides of the plates 6 here. So, they are really separate parts of the 7 structure; and you can remove the proof mass and leave 8 the capacitive sensor behind. 9 Q. Okay. Now, let me go to a different subject. 10 MR. CAWLEY: Let's call up, please, Figure 20 11 from the '96 application. 12 A. I don't know if we need the picture. I suspect 13 we've all memorized it by now. 14 BY MR. CAWLEY: 15 Q. I'm sure when we see it, we'll all remember it. 16 Okay. Here it is again. You remember you 17 were asked a lot of questions by Nintendo's lawyer about 18 this, right? 19 A. I do. 20 Q. But I want to clarify something that I'm afraid 21 crept into your cross-examination. You remember that 22 Nintendo's lawyer asked you to consider the controller? 23 A. That's right. 24 Q. And he asked you if the controller showed three 25 inputs movable by hand. Do you remember that?</p>	<p style="text-align: right;">Page 1511</p> <p>1 Q. Where is the first input? 2 A. Okay. So, the second little bit there says: 3 Structure allowing hand inputs rotating a platform on 4 two mutually -- 5 Q. Okay. 6 A. Yeah. 7 Q. So, that one requires that it be movable by hand, 8 right? 9 A. That's right. 10 Q. Okay. Now, let's look -- where is the second input 11 in the claim? 12 A. Okay. It says: A second element movable on two 13 mutually perpendicular -- 14 Q. What happened to "hand input"? 15 A. Well, those words don't appear in that claim 16 element. 17 Q. So, this claim is not limited to hand input, is it? 18 A. No, it's not. In fact, we saw -- getting down to 19 the third element, which is the same as the second -- 20 that the Wii Remote has an accelerometer. You don't 21 touch that second element directly, but there's nothing 22 in the claim that says you have to touch the element 23 directly. 24 Q. And the same is true of the third element, isn't 25 it?</p>

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<p style="text-align: right;">Page 1512</p> <p>1 A. That's right. Nothing about hand touching that 2 element. 3 Q. So, the second and third element that don't say 4 "hand" could include something movable by hand, correct? 5 A. That's right. It's not excluded. It's not limited 6 out. It could be touched by hand, but it doesn't have 7 to be touched by hand. 8 Q. All right, sir. So, to ground us again in the 9 issue, what we were talking about is whether this claim, 10 19, is disclosed back in 1996 by, among other things, 11 Figure 20, correct? 12 A. That's right. 13 Q. And does Figure 20 show a structure allowing a hand 14 input, et cetera? 15 A. Yep. 16 Q. And does it show a second element movable on two 17 perpendicular axes, et cetera? 18 A. Yes, it does. 19 Q. And does it show a third element movable on two 20 mutually perpendicular axes, et cetera? 21 A. Yes. That's there, as well. 22 THE COURT: Anything else, counsel? 23 MR. CAWLEY: Yes, your Honor. 24 Let's see Figure 21. 25</p>	<p style="text-align: right;">Page 1514</p> <p>1 6-degree-of-freedom controller? 2 A. Yes, they could. 3 Q. Couldn't it be used in other kinds of controllers, 4 as well? 5 A. Yes. 6 Q. So, does this show that Mr. Armstrong, in 1996, 7 disclosed technology for use in many kinds of 8 controllers and not just a single input controller with 9 6 degrees of freedom? 10 A. Yes. That's correct. 11 Q. Similarly, you were asked about this language. 12 This is a discussion of general controllers, correct? 13 A. Yeah, joystick-type, trackball-types, and so on. 14 Q. So, doesn't this suggest to you, when read in 15 context, that Mr. Armstrong disclosed technology that 16 was usable in many types of controllers? 17 A. That's right. 18 Q. Including 6-degree-of-freedom single input 19 controllers? 20 A. Yes, and also for non-6-degree-of-freedom 21 controllers. Again, he says "up to 6 degrees of 22 freedom." 23 Q. You were asked some questions about the Nunchuk 24 used with the Remote. Do you remember the testimony of 25 Nintendo's own engineer that he considered the Nunchuk</p>
<p style="text-align: right;">Page 1513</p> <p>1 BY MR. CAWLEY: 2 Q. This is Figure 21 from the '700 patent? 3 A. Yes. 4 Q. Let's also go to Figure 21 -- actually, maybe I can 5 just do it on the Elmo faster -- Figure 21 from the -- 6 here we go. 7 Figure 21 from the 1996 disclosure. 8 A. Very good. 9 Q. Does this figure disclose an active tactile 10 feedback means? 11 A. Yes, it does. 12 Q. Have you testified about that before on your 13 earlier testimony? 14 A. Yes, I did. 15 Q. Okay. Let me show you now some pages from the '96 16 disclosure that you were asked about and accused of 17 taking out of context. Do you remember that? 18 A. I do. 19 Q. I'll make sure I've got the right one. Here's the 20 first one. 21 Do you remember the questions you were asked 22 about this? 23 A. I do. 24 Q. Could someone use the idea that was disclosed in 25 this part of the specification in a single input</p>	<p style="text-align: right;">Page 1515</p> <p>1 to be an extension of the Remote? 2 A. Yes. I think those are the words we saw. That's 3 right. 4 Q. And, finally, do you remember that you were asked 5 some questions at the very end of your cross-examination 6 about actual games and whether, for example, you could 7 move Princess Peach in 6 degrees of freedom? Do you 8 remember that? 9 A. I do. 10 Q. Do you remember, though, that the judge's claim 11 construction related to whether the controller is 12 capable of moving things on the screen in 6 degrees of 13 freedom? 14 A. Yes, I do. 15 Q. If a particular game -- or, in fact, if many games 16 choose not to use the outputs of the controller in that 17 way, does it make any difference to whether the 18 controller infringes or not? 19 A. No. The patent claims talk about the capability. 20 You describe structures for these devices and what they 21 are able to do. 22 Now, the game programmers do a lot of 23 different things with these. Some use more of the 24 features. Some use different choices and so on. But 25 the point is that it's capable of moving things in these</p>

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<p style="text-align: right;">Page 1516</p> <p>1 six different ways, not that any given game moves them 2 in six different ways. 3 Q. And for all of the controllers that you've told the 4 jury are infringing, are they all capable of moving 5 things in 6 degrees of freedom? 6 A. Yes. That's right. 7 MR. CAWLEY: Pass the witness, your Honor. 8 THE COURT: All right. You may step down. 9 Next witness? 10 MR. CAWLEY: Your Honor, that's our last 11 witness in the rebuttal. 12 THE COURT: So, you rest? 13 MR. CAWLEY: Yes, your Honor. 14 THE COURT: Defense rests -- 15 MR. CAWLEY: Oh, there is one matter, your 16 Honor, that we had discussed yesterday and agreed on and 17 it is that the parties have agreed that the actual 18 physical accused products should be introduced into 19 evidence. 20 THE COURT: All right. 21 MR. GUNTHER: Your Honor, that's correct 22 along with all of the physicals that have been moved in, 23 photographs and the actual physicals -- 24 MR. CAWLEY: Yes. We already have the 25 photographs in, and we want to make sure that the</p>	<p style="text-align: right;">Page 1518</p> <p>1 argument, and then you'll retire. 2 I have a note here that the lunches that were 3 ordered are now here; so, that works out well in timing. 4 Even though you've heard all of the evidence, 5 you've not heard my instructions on the law yet. So, 6 please don't discuss the case among yourselves or let 7 anybody else discuss them with you; and I'm going to ask 8 that you be back here at 1:00. 9 (The jury exits the courtroom, 11:23 a.m.) 10 THE COURT: All right. We've been going here 11 for an hour and a half; so, let's take a break until 25 12 of and then I will consider the JMOL motions and any 13 other issues and then Ms. Chen will have a draft on the 14 jury issues for you to consider and we'll take the 15 objections on that. 16 So, we'll be in recess until 25 of. 17 MR. GUNTHER: Your Honor, could I just hand 18 up our JMOLs at the close of the evidence? 19 THE COURT: Yes. Yes. If you've got a 20 different one -- if it's different than the other one. 21 MR. GUNTHER: Yes, sir. 22 THE COURT: All right. We're in recess until 23 25 of. 24 (Recess, 11:24 a.m. to 11:33 a.m.) 25 (Open court, all parties present, jury not</p>
<p style="text-align: right;">Page 1517</p> <p>1 physical -- 2 THE COURT: All right. They'll be admitted. 3 Of course, the record on appeal is all going to be on a 4 disk; so, you'll have to take them back and substitute 5 the photos. 6 MR. GUNTHER: Understood, your Honor. 7 MR. CAWLEY: Understood, your Honor. 8 THE COURT: So, plaintiff rests? 9 MR. CAWLEY: Yes, your Honor. 10 THE COURT: Defense rests? 11 MR. GUNTHER: We're done, your Honor. 12 THE COURT: Subject to all motions, of 13 course. 14 So, plaintiff closes? 15 MR. CAWLEY: Yes, your Honor. 16 THE COURT: Defense closes? 17 MR. GUNTHER: Yes, sir. 18 THE COURT: Okay. Ladies and gentlemen, you 19 have heard all of the evidence in the case. It took a 20 little bit longer this morning than I thought. I 21 thought we may be taking an earlier break. But what I'm 22 going to do now is release you for lunch. I'm going to 23 ask you to be back at 1:00. I have to deal with some 24 objections and motions and so forth. At 1:00 I'll give 25 you the instructions. The lawyers will make their</p>	<p style="text-align: right;">Page 1519</p> <p>1 present.) 2 THE COURT: All right. We've got counsel 3 from both sides. Let me start off with Nintendo's 4 motion for judgment as a matter of law. I'm 5 gathering -- and I believe this is correct -- that 6 actually there's no dispute over the infringement by 7 doctrine of equivalents. That's not being pushed any 8 further by plaintiffs; is that correct? 9 MR. BOVENKAMP: That's correct, your Honor. 10 THE COURT: Okay. So, that motion is moot. 11 It's been dropped by plaintiff. In case there is any -- 12 well, it's been dropped by plaintiff; so, that one is 13 moot. 14 So, then we get into the issue of no legally 15 sufficient evidentiary basis for a jury to find that the 16 accused controllers literally infringed any of the 17 asserted claims in the '700 patent. The court concludes 18 that on a review of the exhibits and the testimony, 19 especially of defendant's own witnesses, Ikeda and the 20 gentleman with the long -- Koshiishi? 21 MR. GUNTHER: Koshiishi, your Honor. 22 THE COURT: Koshiishi. I speak Spanish. I'm 23 not good on Japanese. 24 -- Koshiishi, that there is at least what's 25 called "substantial evidence" -- a funny term when</p>

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<p style="text-align: right;">Page 1520</p> <p>1 you're talking about a small amount but -- to justify a 2 finding, should the jury tend to believe the various 3 witnesses, including Dr. Howe, of infringement. 4 As to, for example, the GameCube controllers, 5 it's -- it wasn't quite admitted. But by accusing 6 Mr. Armstrong of copying and writing his claims 7 specifically to cover the GameCube, it's a little 8 difficult to say that there wouldn't be at least a 9 finding that those infringed. The argument would be he 10 deliberately copied them but he was a bad copier. I 11 didn't hear anything about him being a bad copier; so, 12 that's virtually -- I'm not going to say it's an 13 admission, but it's awful close on what he supposedly 14 copied. 15 As to the Wii -- and the big issue here, of 16 course, is the accelerometer. And I'll note for the 17 record -- I don't know if it makes any difference to the 18 higher court, but they sometimes seem to talk about how 19 much work or effort a court has put into it. I have 20 listened very carefully to both experts and have also 21 consulted with the court's technical advisor, Dr. Howard 22 Schmidt, professor at Rice University, who, of course, 23 has his doctorate in chemistry, his master's in 24 chemistry, his bachelor's in electrical engineering and 25 computer science, and is executive director of the</p>	<p style="text-align: right;">Page 1522</p> <p>1 and then it goes down to proximity sensors, variable 2 resistive and/or capacitive sensors. And then it also 3 mentions piezo sensors. 4 But then, additionally, (reading) and also 5 other electricity controlling, shaping, or informing 6 devices influenced by movement or force. 7 So, you have the capacitor sensors there; and 8 if some argument is to be made that, well, this is a 9 movement that's going on or something, that seems to be 10 covered in there, also. 11 Now, that's the same language that we see in 12 the '700 patent at Column 4 between lines about 20 and 13 29. So, clearly there is sufficient evidence that 14 having a pair of capacitors there for each axis -- or 15 capacitive sensors there on each axis would meet that; 16 and I think that -- 17 I've also taken time to review the IEEE 18 dictionary and the Wiley dictionary and took a look, 19 also, at the description in the data sheets in those two 20 exhibits where they make it pretty clear that there's 21 probes and capacitors set out there. And after -- as I 22 said before, discussing this in detail from the point of 23 view of one of skill in the art and, in my case, 24 discussions, obviously, with a technical advisor and 25 listening to the experts and Mr. Ikeda and</p>
<p style="text-align: right;">Page 1521</p> <p>1 carbon and nanotechnology laboratory and has been 2 keeping up with all of this, helped me during the 3 Markman phase and discussed this, also. 4 It is true that the Analog refer to their 5 device, their chip, as "a sensor." But that does seem 6 to be a matter of how you phrase it. For example, in 7 the military there are sensors that they use to 8 determine whether someone is approaching; but that's a 9 combination of a couple of different sensors, vibration 10 and sound and -- so, in the sensor that the soldier puts 11 out, there are sensors inside it. And, similarly, in 12 this sensor, the testimony of Mr. Ikeda -- I don't even 13 have to rely on plaintiff's witnesses -- indicated that 14 there were pairs of capacitors on each axis, or for each 15 axis. That was quite clear. That bolstered what 16 Dr. Howe said. 17 But when the man who is in charge of the Wii 18 program says that, I have to take that very seriously. 19 And then the question about whether -- is the 20 capacitor -- or are capacitors sensors, I think that's 21 pretty well covered, both in the '700 patent and in the 22 earlier application. For ease of reference, I'll refer 23 to the '525 patent, Column 6, starting at line 50: For 24 purposes of this teaching specification and claims, the 25 term "sensor" or "sensors" is considered to include --</p>	<p style="text-align: right;">Page 1523</p> <p>1 Mr. Koshiishi, I think there is evidence there on that. 2 Then we have the next issue, and it's 3 slightly different. In the original motion for JMOL, it 4 was in terms of (reading) as a matter of law the '700 5 application was a continuation-in-part of the '525 6 patent, not a continuation. And here, it's (reading) no 7 legally sufficient evidentiary basis exists for a 8 reasonable jury to find that the '700 patent has an 9 effective filing date earlier than November 16 of 2000. 10 So, the JMOL seems to have switched to 11 evidentiary basis as opposed to just a finding as a 12 matter of law. And actually, I think that is the 13 correct argument to make. It is, in fact, a 14 determination as at least in part based upon facts. 15 And, again, listening to the testimony of the witnesses 16 and reviewing the application, the '525 patent itself, 17 and the figures, comparing them with the claims, it to 18 some degree -- as with the accelerometer product, for 19 that matter -- is going to come down to evaluation by 20 the jury of the credibility of the respective experts 21 and the other witnesses in their determination. 22 I mean, obviously they could decide that 23 Dr. Howe is completely wrong about that photograph and 24 everything else; and they could decide that opposing 25 expert was confused or wrong. I mean, that's part of</p>

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<p style="text-align: right;">Page 1524</p> <p>1 the determination they have to make. And, likewise, 2 they've got to rely on the evidence they have received 3 on this other. But the court finds that there is 4 sufficient evidence for this to go to a jury and for 5 them to make that determination and so -- on that issue 6 about evidentiary basis for the -- on the effective 7 filing date. 8 And then on the -- your next one is there's 9 no legally sufficient basis for the jury to find that 10 the '700 patent is not anticipated or rendered obvious. 11 Actually, I don't think that's the test. You have to 12 prove that it is; they don't have to prove that it's 13 not. They don't have to find that it's not. If they 14 find -- I mean, they could find that you just failed to 15 prove it. And only if it was against -- I mean, there 16 would have to be a lot of evidence going the other way, 17 I think, to overturn that. But regardless, I think 18 the -- I mean, it may just be a wording question there; 19 but I want to be sure we're not getting confused on the 20 burden. The burden is on defendant by clear and 21 convincing evidence on that issue. 22 And to say there is no evidence for them to 23 find that you didn't meet your burden, I think, is 24 incorrect. So, on that basis I'll deny it. But if what 25 you really meant was -- is that as a matter of law there</p>	<p style="text-align: right;">Page 1526</p> <p>1 expert, the court finds there is sufficient evidence for 2 a jury to make a decision there. 3 So, for those reasons, I will overrule the 4 motions for JMOL on that general. 5 And let's see. This brings up, I guess, a 6 couple of points. And one of them is this -- in your 7 motion -- and this deals with the tactile feedback. 8 Now, I will point out that when the 9 Markman Hearing came along, the parties represented to 10 the court that that had been agreed upon, there was no 11 dispute. I got that in at least one of the briefs, 12 perhaps two of them. And then at the hearing itself and 13 the transcript I've checked and that -- that was the 14 representation that was made, that there was no real 15 dispute. 16 Now it seems to be that there needs to be 17 some kind of an instruction to the jury on what that 18 means; and, so, I'm intending to give that. I think 19 it's fairly clearly set out in the specification itself. 20 The specification states what the -- what they're 21 talking about with tactile feedback and then refers back 22 to an earlier patent, giving it as an example -- or its 23 equivalents. I'm referring here particularly to 24 Column 4 of the -- I'm sorry -- Column 5 of the '700 25 patent.</p>
<p style="text-align: right;">Page 1525</p> <p>1 is enough evidence for the court to just decide 2 anticipation and obviousness, the court finds that that 3 is hotly contested and not proper at this time for a 4 JMOL. 5 And then, finally, the -- not -- well, 6 there's the -- again, the written description, the no 7 legally sufficient basis to find that the claims of the 8 '700 patent are supported by the written description of 9 the '700 patent specification. Again, the court finds 10 that is contested. A good deal of that may depend on 11 the evaluation by the jury of the credibility of the 12 witnesses. 13 The court's review of the evidence, listening 14 to the witnesses and listening to the -- or reading the 15 specification itself, there is enough there to find -- 16 or to support a jury's verdict, depending on how they 17 decide to go with it. 18 And then, finally, there is the issue of no 19 legally sufficient evidentiary basis exists for a jury 20 to find that they are entitled to damages. Well, I 21 guess entitlement is based on all the previous ones. 22 So, if you're talking about liability issues, I think 23 I've already dealt with that. If you're talking about 24 is there sufficient evidence to support a finding of a 25 particular number based on the testimony of the damages</p>	<p style="text-align: right;">Page 1527</p> <p>1 Now, has there been any agreement -- I mean, 2 I've got -- well, let me not get out of order. 3 Anyways, based on that, I don't believe that 4 is a basis for granting judgment as a matter of law. I 5 think there is testimony about a weight, and the jury 6 can decide whether or not it winds up meeting a 7 definition that they are going to have to be given. 8 MR. FARIS: Your Honor? 9 THE COURT: Yes. 10 MR. FARIS: I just need to say something on 11 that. The issue is -- there is a disagreement as to the 12 corresponding structure. 13 THE COURT: Right. 14 MR. FARIS: Anascape is contending that the 15 corresponding structure is "a shaft with an offset 16 weight." Nintendo contends that the corresponding 17 structure is "a shaft with an offset weight on the 18 shaft" -- I'm sorry -- "a" -- 19 THE COURT: Okay. I guess right now what I'm 20 going over, though, is the JMOL -- 21 MR. FARIS: Yes, sir. 22 THE COURT: And that is a basis for JMOL. I 23 think that's going to depend on what the jury decides 24 the evidence is that was presented. I'm going to have 25 to come up with a definition, but we'll get to that</p>

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<p style="text-align: right;">Page 1528</p> <p>1 next.</p> <p>2 MR. FARIS: Thank you, your Honor.</p> <p>3 THE COURT: If I try to make the definition</p> <p>4 in the middle of the JMOL, it's going to be very</p> <p>5 confusing. Let me get through the JMOL.</p> <p>6 I think there is evidence that there is, in</p> <p>7 fact, a rumble feature, vibration feature in each of</p> <p>8 the -- in the accused product and it does involve a</p> <p>9 weight and it does involve a shaft and I understand</p> <p>10 there may be some disagreement on the evidence. That's</p> <p>11 something the jury will have to decide; so, JMOL on that</p> <p>12 ground is denied.</p> <p>13 There's also a JMOL on this issue of "hand,"</p> <p>14 and that seems to be one that you've kind of walked into</p> <p>15 with your eyes wide shut. At the Markman Hearing --</p> <p>16 Claim Construction Hearing -- I'm looking at -- I think</p> <p>17 it's part 2, starting about page 9. I was asking</p> <p>18 Mr. Stevenson, for plaintiffs: The specification makes</p> <p>19 it pretty clear that it's something in the human hands</p> <p>20 or a handheld game interface or something like that. Is</p> <p>21 there any question from plaintiff's point of view that</p> <p>22 that part of it is what we're talking about, a handheld</p> <p>23 user interface or a hand device?</p> <p>24 Mr. Stevenson: Not really any significant</p> <p>25 dispute there. The real issue is, is it a single input</p>	<p style="text-align: right;">Page 1530</p> <p>1 life at that point. No idea you were talking about</p> <p>2 things held in two hands or that was even going to be an</p> <p>3 issue.</p> <p>4 But to now move for JMOL after those</p> <p>5 representations at the hearing and after sitting quiet</p> <p>6 with my claim construction there saying "hand" as</p> <p>7 opposed to "hands," "hand or hands," or "hand(s)" -- and</p> <p>8 I know you've asked your witnesses a lot of questions;</p> <p>9 and, boy, it sounds like a neat argument. But that one</p> <p>10 you've brought on yourself.</p> <p>11 You made the representation at the hearing.</p> <p>12 You let that definition go forward. If that was</p> <p>13 something important, that should have been brought to my</p> <p>14 attention so I could have considered whether it was</p> <p>15 going to be "hand" or "hands." And to now bring it up,</p> <p>16 that, I think, is -- well, I mean, I guess it's a neat</p> <p>17 argument; but it's unsupportable in terms of JMOL or as</p> <p>18 a matter of law or anything else. And I am definitely</p> <p>19 not granting JMOL on the basis that now suddenly it's</p> <p>20 "hand" versus "hands" with those two pieces of the</p> <p>21 controller there. So, that's being denied.</p> <p>22 But I've stated for the record the reasons</p> <p>23 for it, especially when you take into the -- there's</p> <p>24 also -- and I think -- I mean, the reason for that is we</p> <p>25 take a look as far back as the '525 patent, Column 1,</p>
<p style="text-align: right;">Page 1529</p> <p>1 member.</p> <p>2 The Court: Okay.</p> <p>3 Mr. Stevenson: That's the fight.</p> <p>4 A little bit later, starting at line 14: And</p> <p>5 the same for defendant. Would you agree that we're</p> <p>6 talking about -- and I think all your constructions talk</p> <p>7 about hand-operable or held in the hands?</p> <p>8 Mr. Gunther: Yes, sir.</p> <p>9 Now, as it happened, I used the singular in</p> <p>10 the construction. I don't recall any objection to that,</p> <p>11 any request for clarification on that, or any debate</p> <p>12 that it was going to be one hand or two hands. I mean,</p> <p>13 almost all these controllers, like the GameCube and</p> <p>14 everything else, is actually generally held in two</p> <p>15 hands. You've got two thumbsticks, two joysticks,</p> <p>16 whatever. You're using two thumbs; although, I suppose</p> <p>17 someone who is quick could use one hand.</p> <p>18 To move for JMOL on the basis of that</p> <p>19 undisputed and -- definition of the "use of hand," the</p> <p>20 use of the singular when that wasn't a dispute -- in</p> <p>21 fact, I specifically asked about that, didn't seem to be</p> <p>22 any dispute. That wasn't a problem. No one was</p> <p>23 concerned about it. Keep in mind that at that time I'm</p> <p>24 not trying to define things with an eye toward what was</p> <p>25 involved. I had actually never seen a Wii before in my</p>	<p style="text-align: right;">Page 1531</p> <p>1 Background of the Invention, right at the beginning, at</p> <p>2 about line 17: Computer image controllers which serve</p> <p>3 as interface input devices between the human hand(s).</p> <p>4 So, it's human hands; but with that "(s)," it clearly</p> <p>5 could refer to "hand" or "hands."</p> <p>6 There was no doubt at the hearing, there was</p> <p>7 no doubt when I was writing my construction, and no</p> <p>8 doubt that all through this case, until we got to this</p> <p>9 trial, that there was any question about that; and I</p> <p>10 think that was pretty obvious from the specification</p> <p>11 itself. Same thing in the '700 patent. So, that's</p> <p>12 denied on that ground.</p> <p>13 I think I have covered all of the issues</p> <p>14 brought up. Is there one that I have missed,</p> <p>15 Mr. Gunther?</p> <p>16 MR. GUNTHER: Your Honor, can I let Mr. Blank</p> <p>17 speak to that?</p> <p>18 THE COURT: That's fine.</p> <p>19 MR. GUNTHER: Is that okay?</p> <p>20 THE COURT: I mean, I tried to go through</p> <p>21 your motion and hit all the points that you raised. But</p> <p>22 if there is a general point that was raised and I</p> <p>23 missed, let me know.</p> <p>24 MR. BLANK: We did have a section in there on</p> <p>25 damages, your Honor; and I didn't hear you rule on that.</p>

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<p style="text-align: right;">Page 1540</p> <p>1 and then go ahead with the clear and convincing evidence 2 on this particular issue. 3 That explains why I'm going to do what I'm 4 going to do, and at this point -- do we have any 5 objections as to the instructions? 6 MR. BOVENKAMP: Yes, your Honor. Plaintiffs 7 would request that the court give the instruction that, 8 with regards to preambles of the claim, that all of the 9 claims in this case have preambles. (Reading) A 10 preamble is the first words of a patent claim and is 11 often a single phrase indicating the field of art. 12 Preambles here are not claim limitations; rather, the 13 remaining parts of the claim define the scope of the 14 invention. 15 THE COURT: Overruled. Is that it? 16 MR. BOVENKAMP: A moment to consult, your 17 Honor. I think that's it, though. 18 One more, your Honor. 19 THE COURT: Okay. 20 MR. BOVENKAMP: We would also request that 21 the jury be instructed with regards to the presumption 22 of validity for a patent. 23 THE COURT: All right. Overruled for the 24 reasons stated. We're already going to -- since I'm 25 relying on Chiron, I think I'll rely on them completely.</p>	<p style="text-align: right;">Page 1542</p> <p>1 play that. There hasn't been any objection to those, 2 and I have said more than once, through the pretrial, 3 that if there is a problem with them, let me know. But 4 to wait now at this point to say for all of those 5 constructions, go back to the Markman briefing, I'm not 6 going to accept that. Now, if there are some particular 7 ones, bring them out. 8 MR. BLANK: Okay. 9 LAW CLERK: I think he was referring to 10 (indicating) these -- 11 THE COURT: Well, that's not what he said. 12 He said he's objecting to all of the ones in Appendix A. 13 If that's not what you meant, then explain 14 what you mean. 15 MR. BLANK: What I'm saying is is that we 16 proposed -- with the proposed final jury instructions 17 filed on April 18th, 2008, we attached as an appendix 18 the constructions that we advanced during the 19 Markman Hearing. That's all I'm saying. That's all I'm 20 trying to do is preserve the right to argue those if and 21 when the Federal Circuit looks at this on a de novo 22 basis. That's all I'm saying. 23 THE COURT: All right. Overruled. 24 The one I guess I'd be interested in is the 25 tactile feedback, because that's the one that there</p>
<p style="text-align: right;">Page 1541</p> <p>1 MR. BOVENKAMP: Okay. Those are all the 2 objections that we have, your Honor. 3 THE COURT: Okay. From defendants? 4 MR. BLANK: Nintendo objects to the claim 5 constructions set forth in -- 6 THE COURT: Okay. You need to speak into the 7 microphone, sir. 8 MR. BLANK: I'm sorry, your Honor. 9 Nintendo objects to the instructions set 10 forth in Appendix A, which are the claim constructions, 11 for the reasons set forth in its Markman briefing. 12 THE COURT: No. That's unacceptable. 13 MR. BLANK: I'm sorry. 14 THE COURT: That is absolutely unacceptable. 15 This idea that, "Oh, well, there's some error out there 16 and you'll just have to find it, judge," that may be 17 what the Fed Circuit is intending to do with that case; 18 but they're going to have to say it. So, you go ahead 19 and state your objections. You've waited through this 20 entire trial, and you have not argued about them. 21 They've been sitting there in front of the jury. And to 22 play that game at this point, I think, is just 23 absolutely abominable. It's one of the problems I have 24 with that decision. It was an invitation almost from 25 the court for defense lawyers and plaintiff's lawyers to</p>	<p style="text-align: right;">Page 1543</p> <p>1 hasn't been any agreement on or no prior ruling on. 2 MR. BLANK: The only issue on that, your 3 Honor, is I see that your instruction is "a motor having 4 a shaft with an offset weight and equivalents thereof"; 5 and our -- Nintendo's position is that the corresponding 6 structure is a "motor, shaft, and offset weight on the 7 shaft and equivalents thereof." 8 THE COURT: All right. What's plaintiff's 9 position on that? 10 MR. BOVENKAMP: Your Honor, frankly, I'm 11 surprised that we're having a disagreement about this. 12 There is no question there was an agreement between the 13 parties during the Markman briefing on the construction 14 of this term. There was originally a dispute in the 15 claim construction proceedings that Anascape contended 16 was not a 112(6) clause; defendants contended that it 17 was. 18 In order to simplify and streamline things, 19 right prior to the Markman briefing, Anascape agreed 20 verbatim to the defendant's proposed constructions. We 21 noted that on the first page with a footnote in our 22 opening brief. The court recognized that at the 23 Markman Hearing, your Honor. We don't think it's an 24 issue. We think there's been an agreement. 25 THE COURT: Okay. I will note that -- and</p>

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<p style="text-align: right;">Page 1544</p> <p>1 I've got here a copy of the original -- or the revised 2 joint claim construction statement where that came up. 3 And then noting at -- looks like page 1 of Anascape's 4 opening claim construction brief, Footnote 3: Since 5 filing the revised PR 4-3 statement on May 1, 2007, the 6 parties have agreed to constructions for two additional 7 terms. And then they -- Anascape has agreed to 8 Microsoft's proposed constructions of Exhibit 2 of the 9 revised PR 4-3 statement.</p> <p>10 Now, I suppose Nintendo could say, "Oh, we're 11 not Microsoft; we're different." But you sure didn't 12 say it at the Markman Hearing, and I think it is a 13 little late now to be trying to bring this up.</p> <p>14 But taking a look, then, at what we have in 15 the patent itself, we have in the Abstract the reference 16 to "tactile feedback motor with shaft and offset 17 weight." And then on the '700 patent, Column 5, lines 18 20 to 21, we have the words: Active tactile feedback 19 means (electric motor, shaft and weight).</p> <p>20 And then a little bit further down in 21 Column 5, at line 22: "Tactile feedback means" in 22 reference to the active type as herein used can be an 23 equivalent to or that which is detailed in the 24 incorporated U.S. Patent Number 5,589,828, which is 25 shown and described therein basically as a motor with a</p>	<p style="text-align: right;">Page 1546</p> <p>1 THE COURT: Wait a minute. Let me get there. 2 MR. BLANK: Yes, sir. 3 THE COURT: Did you say page 13? 4 MR. BLANK: Yes, sir. 5 THE COURT: Okay. All right. Yes? 6 MR. BLANK: Yeah. Second paragraph -- the 7 first full paragraph, your Honor. 8 THE COURT: Right. 9 MR. BLANK: The sentence that begins 10 "rather." Nintendo believes that that should read -- 11 and would request that the jury be charged as follows: 12 Rather, the 1996 application itself must describe the 13 invention in the claim and do so in sufficient detail 14 that one skilled in the art can clearly conclude that 15 the inventor invented and possessed the full scope of 16 the claimed inventions recited in the asserted claims as 17 of July 5th, 1996.</p> <p>18 THE COURT: All right. And a number of cases 19 talk about invention and possession, and in the cases it 20 makes clear that the inventor had that. There's been -- 21 on the other hand, I've got to explain this to a jury of 22 laypeople; and what I'm trying to do is give them the 23 idea that he invented it with all of its limitations and 24 in sufficient detail. No issue has been brought up 25 about possession. As Mr. Gunther said, you know, who</p>
<p style="text-align: right;">Page 1545</p> <p>1 shaft and weight on the shaft -- I'm sorry -- with a 2 shaft and weight on the shaft, the shaft being offset so 3 that when rotated, vibration occurs which can be felt by 4 the hand(s) operating the controller.</p> <p>5 And taking a look at the '828 patent, we see 6 a description of that.</p> <p>7 Based on all of that and based on the 8 agreement that came earlier, the court concludes that 9 the function of "tactile feedback means for providing 10 vibration" is: Providing electromechanical-created 11 vibration to the user. And the structure is: Motor 12 having a shaft with an offset weight and equivalents 13 thereof.</p> <p>14 So, I will deny your objection as to the 15 construction of that particular term and partly for not 16 having brought it up -- I think it's a little bit late 17 to change everything now after having made those 18 agreements, but also based on the references and my 19 review of the patent -- the underlying patent and the 20 disclosures.</p> <p>21 Go ahead, counsel.</p> <p>22 MR. BLANK: Okay. On page 13 of the 23 instructions, your Honor, the sentence that begins: 24 Rather, the 1996 application itself must describe the 25 invention and the claim --</p>	<p style="text-align: right;">Page 1547</p> <p>1 owns the patent or so forth hasn't been in. And to try 2 to explain to the jury that by "possession" we don't 3 really mean who actually owns it, we mean that he has it 4 all in his mind -- I think that concept has been 5 properly conveyed by the wording that we have in the 6 instruction as it is; that is -- and it talks about it, 7 for example, right above there: The July 5th, 1996, 8 application must disclose the invention of the new claim 9 with all of its limitations.</p> <p>10 And I don't think -- while the phrase you're 11 using is one that is used in some cases, I don't think 12 it helps the jury understand what the issue is here; so, 13 I'll deny that.</p> <p>14 MR. BLANK: Okay. And, likewise, your Honor, 15 on page 23, just for the record, the middle paragraph 16 that begins, "This written description requirement for a 17 particular claim is satisfied," we would request that 18 the jury be charged as follows: This written 19 description requirement for a particular claim is 20 satisfied if the November 16th, 2000, patent application 21 demonstrates to a person of ordinary skill in the art at 22 the time the 2000 application was filed that 23 Mr. Armstrong invented and possessed the full scope of 24 the inventions recited in the asserted claims of the 25 '700 patent.</p>

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<p style="text-align: right;">Page 1548</p> <p>1 THE COURT: I'm going to deny that. What I 2 am going to add at the end of that sentence, where it 3 says that it describes the invention will include the 4 phrase that we had before "with all of its limitations." 5 And that will tie in with what's on page 13. 6 Next? 7 MR. BLANK: Yes, sir. Back to page 13, your 8 Honor. The second full paragraph that begins "This 9 written description requirement," we would propose that 10 after the first sentence and before the last sentence, 11 the following charge -- as follows: Individually 12 describing each element of the asserted claims in a 13 patent application is not sufficient to satisfy the 14 written description requirement. It is necessary for 15 the application to support the full scope of the claimed 16 embodiments as a whole, period. 17 THE COURT: Overruled. 18 MR. BLANK: The final objection with respect 19 to the liability-related instructions goes to the issue 20 of whose burden it is to prove priority and Mr. Faris is 21 going to speak to that and then we have one additional 22 objection with respect to damages that Mr. Germer will 23 address. 24 THE COURT: All right. 25 MR. FARIS: Your Honor, we have also reviewed</p>	<p style="text-align: right;">Page 1550</p> <p>1 It's basic law that what the damage expert says, the 2 jury can accept part or none or all. I don't think I 3 need to belabor the court with the fact that there's 4 clearly evidence supporting lump sum. The Sony 5 decision, the plaintiff's admission that he liked lump 6 sum and that he knows big companies like lump sum is 7 strong evidence. 8 The only thing that I heard the court express 9 concern about -- and this may not have been the court's 10 concern, but it was the fact that there was no expert 11 testifying about -- and saying that it should be lump 12 sum. I cannot give the court a case in point on lump 13 sum, but I can refer the court and have given copies to 14 Betty of several cases -- the plaintiff's attorneys have 15 copies -- but the Federal Circuit in Unisplay versus 16 American Electronic, 69 F.3d 512, 1995, where they were 17 appealing from a plaintiff verdict, the court noted at 18 page 7 that there -- there was a particular license in 19 that case, kind of like our Sony license. The court 20 said that that particular license agreement should carry 21 considerable weight. 22 I would say the Sony lump-sum settlement 23 should carry considerable weight, not just some 24 evidence. 25 But then the court said more broadly -- and</p>
<p style="text-align: right;">Page 1549</p> <p>1 the Power Oasis case. And given the changes which you 2 have made to the instructions, to that specific 3 instruction, by removing that specific statement 4 concerning burden -- 5 THE COURT: You need to speak up so she can 6 hear you. 7 MR. FARIS: Yes, sir. Given that change, we 8 don't have an objection to that specific instruction. 9 THE COURT: Okay. Good. 10 Mr. Germer? 11 MR. GERMER: Yes, your Honor. I'm back on my 12 lump-sum campaign. We object to the failure of the 13 court in the verdict form to submit, as an alternative, 14 "lump sum" and object to the failure of the court to 15 submit our requested instruction in the form that would 16 include "lump sum." 17 THE COURT: Okay. 18 MR. GERMER: I think the effect -- if I 19 understand the burden of proof correctly, what the court 20 would have to be saying is that the plaintiffs who have 21 the burden on damages have established as a matter of 22 law that it could only be by a royalty, a running 23 royalty. And that would be an incredibly tough burden 24 when, particularly, as the court has already noted, 25 their damage expert can be believed or not believed.</p>	<p style="text-align: right;">Page 1551</p> <p>1 this is the point I hope to make -- (reading) in 2 rendering our decision, the court said, we do not hold 3 that a jury may only arrive at a royalty specifically 4 articulated by the parties during the trial. A court is 5 not restricted in finding a reasonable royalty to a 6 specific figure put forth by one of the parties. 7 Rather, a jury's choice simply must be within the range 8 encompassed by the record as a whole. 9 And I would urge the court that that same 10 logic would apply to this running royalty versus 11 lump-sum issue and it's clearly within the record as a 12 whole for the jury to make that determination and it 13 clearly has not been established as a matter of law by 14 the plaintiffs that it can only be a running royalty. 15 There is another patent case by the District 16 Court that said, for example, expert testimony may be 17 received -- this is a 2008 case -- expert testimony may 18 be received but is not required as an aid to determine 19 appropriate damages in a patent infringement case. 20 Now, that -- I know the court knows that; so, 21 I don't mean to belabor it. But it makes the point that 22 expert testimony is not even required for the plaintiff 23 to sustain its burden of proving damages. It can be 24 done without that. So, surely there's not a requirement 25 for expert testimony, somebody to come in paid to say,</p>

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<p style="text-align: right;">Page 1552</p> <p>1 "Oh, I think it should be lump sum" if there's evidence 2 fairly raising it. And I have other cases; but that's 3 the tenor of it, your Honor. 4 I think clearly if we look at the record in 5 the case, we're going to see that it's a pretty strong 6 record for lump sum; and that, I think, is what the jury 7 is going to have to decide, which way they want to go. 8 Thank you -- and unfortunately, as I said 9 last night, I mean, I do think this is not a trivial 10 matter because if the defendant doesn't get this 11 submission and we're entitled to it -- not that we're 12 going to win it. The jury still can decide and may well 13 decide, if they go for plaintiff, to give a running 14 royalty. But if we don't get this in our submission and 15 we're right that there's evidence in here, then clearly 16 the whole damage part of the case at least would have to 17 be redone. 18 THE COURT: I mean, you make some good 19 arguments there; and the -- I'm gathering that the 20 defendants don't want it in there still, the 21 possibility. 22 MR. GUNTHER: Plaintiffs, your Honor? 23 MR. BOVENKAMP: Plaintiffs. 24 THE COURT: Plaintiffs. I'm sorry. 25 MR. BOVENKAMP: That's correct, your Honor.</p>	<p style="text-align: right;">Page 1554</p> <p>1 and how do you extract out the lump sum from those other 2 factors that were in those licenses. 3 I could be wrong, but I don't recall a just 4 bare -- what is sometimes called a "bare license" for a 5 lump sum. If I'm recalling right, they're almost all 6 involving other issues, more than one patent, 7 cross-licensing, and so forth. 8 And, so, without that and without some other 9 testimony and given the -- I guess, the evidence that we 10 have from -- it seems to be uncontroverted that in this 11 particular case -- and it was the last question I think 12 the expert was asked by counsel, was that this lump sum 13 would be only for the amount of time between, I guess, 14 the filing of suit and today. And actually, that's not 15 correct. The lump sum would be for all time. 16 I asked a question -- I was concerned about 17 that; and I actually asked a question of what's lump 18 sum, what's -- but there was no follow-up, nothing to 19 get into anything further. And I don't think it would 20 be proper for the jury to give a lump-sum judgment just 21 based on damages suffered up to today. It's obviously a 22 lump sum for all time, and they've had no evidence on 23 that at all. 24 For those reasons, I -- and I have submitted 25 "lump sum" questions before. I'm not submitting it in</p>
<p style="text-align: right;">Page 1553</p> <p>1 We do not. 2 THE COURT: Okay. I mean, it's possible you 3 were so confident you were going to win and you wouldn't 4 care just to... 5 But the problem I have on this -- and the 6 court is fully aware that an expert is not always 7 necessary to establish damages. On the other hand, the 8 Fed Circuit is -- and it seems to be almost a given 9 nowadays that we all have to go through these 10 Georgia-Pacific factors. Ever since that came out, I 11 haven't seen a case where that didn't happen. Whereas, 12 in almost every other kind of property case, an expert 13 might talk about them or might not, those similar kind 14 of factors, and come up with something as long as there 15 was basis. But now evidently -- and I think I've even 16 seen some cases where the expert didn't properly 17 consider these 15 factors; and, thus, the evidence was 18 insufficient. 19 We do have some licenses in here; but if I'm 20 recalling right, each of the ones that was a lump sum 21 also had in it some other factor, such as 22 cross-licensing, the giving of a bunch of patents, 23 getting patents back; and we've had no explanation about 24 how that would play in when it goes in. So, it would be 25 asking the jury to guess at this kind of economic damage</p>	<p style="text-align: right;">Page 1555</p> <p>1 this particular case. 2 I think I'll also note that I had to make up 3 that question the last time I submitted it because I 4 didn't -- I can't remember finding it in a form 5 anywhere. I don't think many people do it very often, 6 but -- but I think that may be partly because defendants 7 don't usually bring it. 8 All right. Anything else? Any other 9 objections? 10 MR. PARKER: One other issue, your Honor, in 11 an abundance of caution. Because the court applied 12 Chiron and is not instructing the jury on presumption, 13 the court, I assume, is not telling the plaintiffs we 14 can't argue -- 15 THE COURT: No. They were told that in the 16 video. That statement was made in the video. If people 17 want to make that statement, go ahead and make it. I'm 18 not going to tell you "no"; I'm just not going to 19 emphasize to the jury and give the court's imprimatur on 20 yes, it's presumed valid because presumptions and 21 bursting bubble presumptions -- I'm not going to get 22 into all that legal argument with the jury. 23 MR. PARKER: We just wanted to be careful. 24 THE COURT: Yes. No, you're -- you may do 25 it.</p>

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<p style="text-align: right;">Page 1568</p> <p>1 Anything that was publicly known or used in 2 the United States by someone other than the inventor 3 before the inventor made the invention; 4 Two, anything that was sold or on sale in the 5 United States more than one year before the effective 6 filing date of the '700 patent; 7 Three, anything that was patented or 8 described in a printed publication anywhere in the world 9 before the inventor made the invention or more than one 10 year before the effective filing date of the '700 11 patent; 12 And, four, anything that was invented by 13 another person in this country before the inventor made 14 the invention, if the other person did not abandon, 15 suppress, or conceal his or her invention. 16 Two of the different categories of prior art 17 refer to the date on which the inventor made the 18 invention. This is called the "date of the invention." 19 For purposes of this case, the date of the invention for 20 a particular claim is the same as the effective filing 21 date, which is referred to in the other two categories 22 of prior art. 23 The effective filing date of a claim of the 24 '700 patent is the date the application was filed -- 25 November 16, 2000 -- or the date on which the earlier</p>	<p style="text-align: right;">Page 1570</p> <p>1 disclosed in the specification. Rather, the 1996 2 application itself must describe the invention in the 3 claim and do so in sufficient detail that one skilled in 4 the art can clearly conclude that the inventor invented 5 the claimed invention as of July 5, 1996. A disclosure 6 in the application that merely renders the claim obvious 7 is not sufficient to meet this written description 8 requirement. The disclosure must describe the claim of 9 the '700 patent with all its limitations. 10 The written description requirement may be 11 satisfied by the words, structures, figures, diagrams, 12 formulas, et cetera, in the patent application and any 13 combination of them, as understood by one of ordinary 14 skill in the field of technology of the invention. A 15 requirement in a claim need not be expressly disclosed 16 in the patent application as originally filed, provided 17 persons of ordinary skill in the field of technology of 18 the invention would have understood that the missing 19 requirement is inherent in the written description of 20 the patent application. 21 Nintendo can meet its burden of proving that 22 the 1996 application fails to satisfy the written 23 description requirement for a particular claim of the 24 '700 patent -- and, thus, establish that claim is not 25 entitled to the July 5, 1996, effective filing date --</p>
<p style="text-align: right;">Page 1569</p> <p>1 patent application was filed -- July 5th, 1996 -- if 2 that earlier application discloses the invention in that 3 claim in the later patent. 4 Anascape asserts that the claims of the '700 5 patent are entitled to an effective filing date of July 6 5, 1996. Nintendo asserts that the claims of the '700 7 patent are not entitled to the 1996 effective filing 8 date but, rather, they have the effective filing date of 9 November 16, 2000. 10 If the patent application process -- I'm 11 sorry. 12 In the patent application process, the 13 applicant may change the claims between the time the 14 patent application is first filed and the time a patent 15 is finally granted. As long as an application is 16 pending, an applicant may amend the claims or add new 17 claims. An applicant may add new patent claims in a new 18 application that are intended to cover another's 19 products about which the applicant learned of during the 20 prosecution of the application. However, for any new 21 claim to be entitled to the July 5, 1996, filing date, 22 the July 5, 1996, application must disclose the 23 invention of the new claim with all of its limitations. 24 The question is not whether a claimed 25 invention is an obvious variant of that which is</p>	<p style="text-align: right;">Page 1571</p> <p>1 by showing that by clear and convincing evidence that 2 the entirety of the specification of the 1996 3 application would clearly indicate to a person of 4 ordinary skill in the art that the invention described 5 in that application is of a narrower -- that should be 6 "narrower" -- scope than the invention of that 7 particular claim in the '700 patent. 8 I will now list the categories of prior art 9 you may consider. Later, I will list the specific items 10 of prior art upon which Nintendo is relying to establish 11 that the claims of the '700 patent are invalid. 12 Knowledge or use in the United States of a 13 game controller can be prior art to the patent claims. 14 The knowledge or use will be prior art if it meets the 15 following requirements: 16 The knowledge or use must be by someone other 17 than the inventor; 18 The knowledge or use must be before the 19 effective filing date of the claim; 20 The knowledge or use must be in the United 21 States. Prior knowledge or use outside the United 22 States cannot be relied upon to invalidate a patent 23 claim; 24 And, four, the knowledge or use must have 25 been public. Private or secret knowledge or use by</p>

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<p style="text-align: right;">Page 1576</p> <p>1 Rather, the question is whether or not the invention 2 would have been obvious to a person of ordinary skill in 3 the field of the invention.</p> <p>4 You must not use hindsight when comparing the 5 prior art to the invention for obviousness. In making a 6 determination of obviousness or nonobviousness, you must 7 consider only what was known of before the invention was 8 made. You may not judge the invention in light of 9 present-day knowledge.</p> <p>10 In determining whether or not these claims 11 would have been obvious, you should make the following 12 determinations from the perspective of a person of 13 ordinary skill in the art, as I have previously defined 14 it for you, in light of the scope and content of the 15 prior art.</p> <p>16 First, are there any material differences 17 between the scope and content of the prior art and each 18 asserted claim of the '700 patent?</p> <p>19 Second, are there any objective indications 20 of nonobviousness?</p> <p>21 Determining the scope and content of the 22 prior art means you should determine what is disclosed 23 in the prior art relied upon by Nintendo. You must 24 decide whether this prior art was reasonably relevant to 25 the particular problem the inventor faced in making the</p>	<p style="text-align: right;">Page 1578</p> <p>1 been discouraged from following the path taken by the 2 inventor.</p> <p>3 It is common sense that familiar items may 4 have been obvious beyond their primary purposes, and a 5 person of ordinary skill often will be able to fit the 6 teachings of multiple patents together like pieces of a 7 puzzle. Multiple references in the prior art could be 8 combined to show that a claim is obvious. Any need or 9 problem known in the field and addressed by the patent 10 can provide a reason for combining the elements in the 11 manner claimed. To determine whether there was an 12 apparent reason to combine the known elements in the way 13 a patent claims, you can look to interrelated teachings 14 of multiple patents, to the effects of demands known to 15 the community or present in the marketplace, and to the 16 background knowledge possessed by a person of ordinary 17 skill in the art. Neither the particular motivation of 18 the person of ordinary skill in the art nor the alleged 19 purpose of the patentee controls. One of ordinary skill 20 in the art is not confined only to prior art that 21 attempts to solve the same problem as the patent claims.</p> <p>22 You must also consider what are referred to 23 as "objective indications of nonobviousness." Some of 24 these indications of nonobviousness are: Long-felt and 25 unmet need in the art for the invention, failure of</p>
<p style="text-align: right;">Page 1577</p> <p>1 invention covered by the patent claims. Such relevant 2 prior art includes prior art in the field of the 3 invention and also prior art from other fields that a 4 person of ordinary skill would look to when attempting 5 to involve the problem.</p> <p>6 In determining whether there are any material 7 differences between the invention covered by the patent 8 claims and the prior art, you should not look at the 9 individual differences in isolation. You must consider 10 the claimed invention as a whole and determine whether 11 or not it would have been obvious in light of all the 12 prior art.</p> <p>13 If you conclude that the prior art discloses 14 all the steps or elements of the claimed invention but 15 those steps or elements are in separate items, you may 16 consider whether or not it would have been obvious to 17 combine those items. A claim is not obvious merely 18 because all the steps or elements of that claim already 19 existed.</p> <p>20 In determining whether to combine what is 21 described in various item was prior art, you should 22 consider whether or not there was some motivation or 23 suggestion for a skilled person to make the combination 24 covered by the patent claims. You should also consider 25 whether or not someone reading the prior art would have</p>	<p style="text-align: right;">Page 1579</p> <p>1 others to achieve the results of the invention, 2 commercial success of the invention, praise of the 3 invention by those in the field, expression of disbelief 4 or skepticism by those skilled in the art, the invention 5 proceeded in a direction contrary to accepted wisdom in 6 the field, and the invention achieved any unexpected 7 results.</p> <p>8 These objective indications are only relevant 9 to obviousness if there is a connection or nexus between 10 them and the invention covered by the patent claims. 11 For example, commercial success is relevant to 12 obviousness only if the success of the product is 13 related to a feature of the patent claims. If the 14 commercial success is a result of something else, such 15 as innovative marketing, and not to a patented feature, 16 then you should not consider it to be an indication of 17 nonobviousness.</p> <p>18 Again, you must compare separately each of 19 the claims of the patent asserted by Anascope with the 20 prior art references to determine whether Nintendo has 21 proved by clear and convincing evidence that one or more 22 of the claims was obvious.</p> <p>23 Now, to be valid, a patent must meet the 24 written description requirement. In order to meet this 25 written description requirement, the description of the</p>

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<p style="text-align: right;">Page 1580</p> <p>1 invention in the specification portion of the '700 2 patent must be detailed enough to describe the invention 3 that is claimed in the claims of the '700 patent. 4 Nintendo may also establish that a patent claim of the 5 '700 patent is invalid by showing, by clear and 6 convincing evidence, that the written description of the 7 invention of the '700 patent itself is not adequate. In 8 the patent application process, the applicant may change 9 the claims between the time the patent application is 10 first filed and the time a patent is finally granted. 11 An applicant may amend claims or add new claims. These 12 changes may narrow or broaden the scope of the claims. 13 The purpose of the written description requirement is to 14 ensure that the '700 patent provides an adequate 15 description of the invention and to ensure that the 16 scope of the claims that are eventually issued remain 17 within the scope of the written description of the 18 invention that was provided with the application for the 19 '700 patent. 20 This written description requirement for a 21 particular claim is satisfied if the person of ordinary 22 skill reading the specification of the '700 patent would 23 recognize that it describes the invention with all its 24 limitations. 25 The written description requirement may be</p>	<p style="text-align: right;">Page 1582</p> <p>1 Anascape for the infringement. Your damage award, if 2 you reach this issue, should put the patent holder in 3 approximately the same financial position that it would 4 have been in had the infringement not occurred, but in 5 no event may the damages be less than a reasonable 6 royalty. 7 Anascape has the burden to establish the 8 amount of its damages by a preponderance of the 9 evidence. Damages are limited to acts of infringement 10 in the United States. You should award only those 11 damages that Anascape establishes that it more likely 12 than not suffered. Anascape is not entitled to damages 13 that are remote or speculative or based on guesswork. 14 While Anascape is not required to prove its damages with 15 mathematical precision, it must prove them with 16 reasonable certainty. 17 In this case Anascape is seeking damages in 18 the form of a reasonable royalty. A royalty is the 19 amount of money a licensee pays to a patent owner for 20 use made of the invention under the patent. A 21 reasonable royalty is the amount of money a willing 22 patent owner and a willing prospective licensee would 23 have agreed upon at the time of the infringement for a 24 license to make use of the invention. It is the royalty 25 that would have resulted from an arm's-length</p>
<p style="text-align: right;">Page 1581</p> <p>1 satisfied by words, structures, figures, diagrams, 2 formulas, et cetera, in the patent and any combination 3 of them as understood by one of ordinary skill in the 4 field of the technology of the invention. A requirement 5 in a claim need not be expressly disclosed in the 6 specification, provided persons of ordinary skill in the 7 field of technology of the invention would have 8 understood that the missing requirement is inherent in 9 the written description of the specification. 10 Now, if you find by a preponderance of the 11 evidence that a claim has been infringed and you do not 12 find by clear and convincing evidence that the same 13 claim is invalid, then Anascape is entitled to an award 14 of damages adequate to compensate for the infringement. 15 You should not interpret the fact that I have given 16 instructions about damages as an indication in any way 17 that I believe that Anascape should, or should not, win 18 this case. It is your task first to decide whether 19 Nintendo is liable. I am instructing you on damages 20 only so that you will have guidance in the event you 21 decide that Nintendo is liable and that Anascape is 22 entitled to recover money from Nintendo. 23 You may award Anascape damages for any 24 infringement you have found starting July 31, 2006. The 25 amount of those damages must be adequate to compensate</p>	<p style="text-align: right;">Page 1583</p> <p>1 negotiation on or about June 14, 2005, between a willing 2 licensor and a willing licensee, assuming that both 3 parties believed the claims in question to be valid and 4 infringed and that the licensee would respect the 5 patent. 6 In making your determination of the amount of 7 a reasonable royalty, it is important that you focus on 8 the time period when the infringer first infringed the 9 patent and the facts that existed at that time. Your 10 determination does not depend on the actual willingness 11 of the parties to this lawsuit to engage in such 12 negotiations. Your focus should be on what the parties' 13 expectations would have been had they entered 14 negotiations at the time the infringing activity began 15 and the facts that existed at that time. 16 In determining the reasonable royalty, you 17 should consider all the facts known and available to the 18 parties at the time the infringement began. Some of the 19 kinds of factors that you may consider in making your 20 determination are: 21 One, whether the patent holder had an 22 established royalty for the invention; in the absence of 23 such a licensing history, any royalty arrangements that 24 were generally used and recognized in the particular 25 industry at that time. In this connection, when</p>

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<p style="text-align: right;">Page 1584</p> <p>1 evaluating evidence about amounts paid under other 2 licenses and agreements, you should consider whether 3 such licenses and to what extent the license was 4 comparable; that is, was the technology exchanged and 5 the terms of the agreement similar in terms and scope to 6 the technology of the patent-in-suit and the bare 7 license for the patent in the hypothetical negotiation; 8 The nature of the commercial relationship 9 between the patent owner and the licensee, such as 10 whether they were competitors or whether their 11 relationship was that of an inventor and a promoter; 12 The established profitability of the patented 13 method or system, its commercial success, and its 14 popularity at the time; 15 Whether the patent owner had an established 16 policy of granting licenses or retaining the patented 17 invention as its exclusive right, or whether the patent 18 holder had a policy of granting licenses under special 19 conditions designed to preserve its exclusivity; 20 The size of the anticipated market for the 21 invention at the time the infringement began; 22 The duration of the patent and of the 23 license, as well as the terms and scope of the license, 24 such as whether it is exclusive or nonexclusive or 25 subject to territorial restrictions;</p>	<p style="text-align: right;">Page 1586</p> <p>1 infringer would have been willing to pay and the patent 2 owner would have been willing to accept, acting as 3 normally prudent businesspeople. 4 The amount that a licensor and a licensee 5 would have agreed upon just before the patent-in-suit 6 were issued if both had been reasonably and voluntarily 7 trying to reach an agreement; that is, the amount which 8 a prudent licensee who desired, as a business 9 proposition, to obtain a license to use a particular 10 system or method embodying the patented invention would 11 have been willing to pay as a royalty and still be able 12 to make a reasonable profit and which amount would have 13 been acceptable by a prudent patentee who was willing to 14 grant a license. 15 Now, you'll also get, a little bit later, a 16 form which the lawyers, I think, on both sides will be 17 showing you with a verdict and each one of those is a 18 particular question on some of those issues you received 19 an instruction on; and after the final argument, I have 20 a few more instructions on what you'll be doing in the 21 jury room. 22 At this time, since plaintiff generally has 23 the burden of proof, plaintiff will begin the closing 24 argument. 25 MR. CAWLEY: Thank you, your Honor.</p>
<p style="text-align: right;">Page 1585</p> <p>1 Seven, the rates paid by the licensee for the 2 use of other patents comparable to the plaintiff's 3 patent; 4 Eight, whether the licensee's sales of the 5 patented invention promote sales of its other methods or 6 systems and whether the invention generates sales to the 7 inventor of his nonpatented items. 8 Nine, the utility and advantages of the 9 patent property over the old methods or systems, if any, 10 that had been used for working out similar results. 11 Ten, the extent to which the infringer used 12 the invention and any evidence probative of the value of 13 such use. 14 Eleven, the portion of the profits in the 15 particular business that are customarily attributable to 16 the use of the invention or analogous inventions. 17 Twelve, the portion of the profits that 18 should be credited to the invention as distinguished 19 from nonpatented elements, the manufacturing process, 20 business risks or significant features or improvements 21 added by the infringer. 22 Thirteen, the opinion and testimony of 23 qualified experts and of the patent holder. 24 Fourteen, any other factors which, in your 25 mind, would have increased or decreased the royalty the</p>	<p style="text-align: right;">Page 1587</p> <p>1 This is a story about a man who had a vision. 2 His vision was to become an inventor, and one of the 3 things he had the vision to invent was a way of 4 controlling something that he saw would be needed in the 5 future. He had the vision to see that in the future, 6 video games would operate in three dimensions and that 7 the simple kinds of controllers that the industry used 8 up until the time of his invention wouldn't be good 9 enough. 10 He started working and worked hard for 11 several years; and at the end of that time, he invented 12 a better controller to be used in the control of 13 three-dimensional video games. 14 The United States Patent Office recognized 15 his invention. After five years of examination and 16 study by the Patent Office, he was issued this '700 17 patent. The Patent Office told us that this patent was 18 valid and useful. And they weren't the only ones. 19 You've heard that giant companies in the video game 20 industry recognized his technology, and some of them 21 agreed to pay him fair value in order to be able to 22 import their products into the United States and to sell 23 them. 24 But you've also heard that Nintendo has 25 refused to pay fair value for the use of Brad Armstrong</p>

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<p style="text-align: right;">Page 1612</p> <p>1 He files his application in 1996, and then he 2 goes about trying to commercialize what you see in front 3 of you on the table. He tries to sell single input 4 member 6-degree-of-freedom controllers. He calls them 5 "global navigators." No one wants them. He sells 30 of 6 them altogether. He attempts to license other 7 companies. He testified that he enters into a joint 8 venture with a company called "Key Tronic" to 9 manufacture single input member 6-degree-of-freedom 10 controllers. Key Tronic never makes a single one. 11 He testified that he -- his good friend -- he 12 enters into a license with his good friend, Mr. Tyler, 13 when he's at Mad Catz. Mr. Tyler, the person who 14 founded Mad Catz, who has his ear to the video game 15 industry. He licenses his invention to Mr. Tyler; and 16 Mr. Tyler, on behalf of Mad Catz, never makes any 17 controllers that embodied Mr. Armstrong's invention. He 18 never does it. The video game industry today -- you can 19 look today, and there has been no evidence that any 20 company in the video game industry has ever developed a 21 controller like the ones you see before you with a 22 single handle or a single ball that's movable in 23 6 degrees of freedom to achieve that kind of control. 24 So, after ten years of failure, of trying, he 25 thinks he's got a revolutionary idea; but as he goes out</p>	<p style="text-align: right;">Page 1614</p> <p>1 definition of controllers on the market today. 2 They are not innovating; they're writing 3 claims. They're trying to write claims to copy products 4 that are on the market. Mr. Armstrong is no longer 5 trying to find success in his own ideas; he's trying to 6 find success in the ideas of others. 7 Mr. Tyler again in September -- this is very 8 shortly before the '700 application is filed in November 9 of 2000 -- to Mr. Armstrong, on 6 degrees of freedom: I 10 wonder if we can change the claims to reflect our new 11 direction? 12 Now, both Mr. Tyler and Mr. Armstrong 13 testified that they couldn't remember what the new 14 direction is. I ask you to use your common sense and 15 your perception of what's gone on in this case and the 16 evidence that has come in before you. And I will 17 suggest to you that the reason -- that there is a reason 18 and a new direction. And what that new direction was 19 was to write claims in 2002 that copied the GameCube 20 controller. They tried to cover the GameCube controller 21 and to take that invention as his own. The new 22 direction was to claim Nintendo's technology as his own. 23 And I want you to keep in mind one thing. 24 Mr. Armstrong is a 56 percent owner of Anascape. He 25 stands to get the lion's share of the \$50 million that</p>
<p style="text-align: right;">Page 1613</p> <p>1 to the market, the video game industry is not 2 interested. What does he do? What does the dreamer do? 3 What he does is he enters into an agreement; 4 and he forms a company called "Anascape" with his 5 business partner, his friend but his business partner, 6 in 1999. And what do they do with Mr. Tyler's money? 7 Mr. Tyler testified that he put in over a million 8 dollars into the enterprise. Do they do more R&D? Do 9 they go out and try to market a product? No. What they 10 do is they sit down and spend that time and money trying 11 to write new claims trying to change the application in 12 a way not to cover what Mr. Armstrong disclosed in his 13 1996 application but to try to cover the work of others, 14 to try to cover the work of Nintendo in this case. 15 Mr. Tyler -- let's go to the next slide. 16 Mr. Tyler -- and you saw this slide. It's 17 Defendant's Exhibit 216 in evidence. Mr. Tyler takes 18 the 1996 warehouse application; and in the year 2000, he 19 starts giving Mr. Armstrong ideas on what he should do 20 to write new claims. And one of the things he says is: 21 I think we can get some additional valuable claims out 22 of this application, the zero application. That's the 23 1996 application. He says: Broadens definition of 6 24 DOF controllers -- 6-degree-of-freedom controllers -- to 25 3-D graphic image controllers, probably a better</p>	<p style="text-align: right;">Page 1615</p> <p>1 they are asking for in this case. And it's not just 2 \$50 million, ladies and gentlemen, because the patent 3 continues out until 2012; and they are going to ask for 4 a 5 percent royalty on all of that. So, it could be a 5 hundred million or more at the end of the day. 6 That's Mr. Armstrong. Now let's look at what 7 the evidence showed about Mr. Ikeda. 8 He had a revolutionary idea. His idea was 9 for a controller with an accelerometer and a pointer 10 that could respond to body motion as it was moved 11 around. His idea also came from his prior experience. 12 He was an engineer with 15 years working in video games 13 at Nintendo, right after he got his degree in electrical 14 engineering and got out of college. That's what he 15 focused on. And his idea came from, you'll recall, his 16 experience with that Game Boy game called "Kirby Tilt 'n 17 Tumble" which had an accelerometer in it and it gave him 18 the idea, when he was put on that group that was doing 19 planning, to come up with a prototype. And he came up 20 with a prototype; and he took it to his boss, 21 Mr. Miyamoto. And Mr. Miyamoto thought it was a good 22 idea, and it began to catch fire. There was excitement 23 at the company. And the next thing you know, Mr. Ikeda 24 is in charge of the group that's developing the 25 controller for Nintendo's next generation system. And</p>

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