EXHIBIT 57

IN THE UNITED STATES DISTRICT COURT
FOR THE EASTERN DISTRICT OF TEXAS
LUFKIN DIVISION

ANASCAPE, LTD.	§	
	§	Hon. Ron Clark
Plaintiff,	§	
	§	Civil Action No. 9:06-CV-00158-RC
v.	§	
	§	
MICROSOFT CORPORATION, and	§	
NINTENDO OF AMERICA, INC.,	§	Oral Argument Requested
	§	
Defendants.	§	

DEFENDANTS' JOINT MOTION FOR PARTIAL SUMMARY JUDGMENT OF INVALIDITY OF CLAIMS 19-20, 22-23 OF THE '700 PATENT

UNDISPUTED MATERIAL FACTS

1. In 1998, Sony's Dual Shock controller was placed on sale in the U.S. (A124-25).

2. In 1998, Sony's European patent application entitled "Operating Device for Game Machines," filed by Teiyu Goto et al., was published. (A126-50, "Goto").

3. In September and October, 1999, Sony's next generation controller, Dual Shock 2, was described in various publications. (A151-56).

4. The 1998 Sony Dual Shock and Goto controllers each included all of the structural and functional features of '700 Patent claims 19 and 20 (as construed by the Court). (A200-08, A211-16, A218-22, A224-32).

5. The 1999 Dual Shock 2 included all of the structural and functional features of '700 Patent claims 22 and 23 (as construed by the Court). (A209-10, A216-17, A233-36).

6. In July 1996, Mr. Armstrong filed a U.S. patent application (A1-91) describing a controller having a single input member (a joystick or a trackball) manipulatable in six degrees of freedom (6-DOF) relative to the controller, and every embodiment of that "invention" included that single input 6-DOF member. (*See* A178-91).

7. In August 2000, Mr. Armstrong expressly abandoned this 1996 application (A92-93) and replaced it with a "continued prosecution application" ("CPA"). This Aug. 2000 CPA had no specification and no drawings. (A92-101). Its claims encompassed controllers lacking the 6-DOF single input member. (A96-100).

8. On November 16, 2000, Mr. Armstrong filed another application (A102-03), in which he deleted his 1996 application's express requirement that 6-DOF manipulation be provided by a single input member (but still disclosed no embodiment lacking that feature). (A192-99).

9. In July 2002, Mr. Armstrong cancelled all of the pending claims in his November 16, 2000 application, and replaced them with a new set of claims, including application claims 63-64, 66-67 which are the precursors to the four '700 Patent claims challenged in this Motion. (A105-07). The '700 Patent later issued from this application. (A110).

Thus, four years before Armstrong filed his application for the '700 Patent, Sega had already described a 3-D controller in a publicly available written publication containing many if not all of the elements Armstrong disclosed as "novel" in the '700 Patent, including at least the use of analog joysticks, pressure-sensitive pivotal buttons offering both analog and on/off functionality as desired by the user, and additional multiple independent buttons.

3. The Sega Saturn™ 3D Control Pad Controller

I have reviewed a Sega Saturn™ 3D Control Pad (Exhibit W), which was publicly released in the United States in August of 1996. The Sega Saturn™ 3D Control Pad has many of the same features described in the Himoto patent and all of the features described in the Sega Saturn™ 3D Control Pad Manual, including:

- A housing (PP)
- A "D-pad" input member (B) which pivots to impinge on dome caps (J-M) to activate sensors (T-W) to sense rotation about two axes
- An additional thumbstick input member (A), with analog sensors to sense rotation of the input member about two axes.
- Multiple thumb-depressible buttons on the face of the controller (C-I), most with dome caps (N-S) to provide tactile feedback
- Sensors for the input members (A, T-W) and all finger depressible buttons (X-Z, AA-DD) on the single sheet that is a circuit board (GG)
- Pivotal finger-depressible buttons (II, JJ) on the top of the controller (the side farthest from the user) with hall effect rotation sensors (KK-MM, QQ) to provide proportional output relating to the pressure applied to the triggers
- A circuit board (GG) on which the sensors of the D-pad and thumbstick input members and the finger and thumb depressible buttons are carried

D. The Sony Analog Controller Prior Art

As an initial matter, the Sony Analog controllers are not true six degree of freedom, or 3-D graphics controllers, in that they are not controllers "capable of movement in six degrees of freedom," even though they are all "device[s] held in the user's hand that allow[] hand or finger inputs to be converted into electrical signals for manipulation of images (graphics) on a display device, which are capable of being perceived by a human."

Anascape, however, claims infringement of the '700 Patent's "3-D graphics controller" claims by controllers (e.g., Microsoft's Xbox) that are not themselves capable of movement in six degrees of movement. In so doing, Anascape contends that a 3-D graphics controller is simply any controller that "manipulates images in 6DOF or in three dimensions." (Claim Construction Order, Part I, Exhibit C, pg. 8, quoting Tr. P. 19, ll. 21-25.) To the extent that Anascape argues that the Court's construction of 3-D graphics controller requires only a controller *capable of* providing sufficient outputs for manipulating images on a screen in 6DOF, as opposed to the controller itself moving in six degrees of freedom[12], the Sony analog controllers would meet this requirement, as each has sufficient sensors to provide the twelve directional inputs required to manipulate images in six degrees of freedom.

1. PlayStation Analog Joystick ("Flightstick")

I have reviewed a PlayStation Analog Joystick (Exhibit X) Sony's release of its PlayStation Analog Joystick ("Flightstick") was publicly announced in the United States in or about August of 1995, and the first public release took place in Japan on April 26, 1996. The Flightstick was not cited prior art during prosecution of either the '525 Patent or the '700 Patent.

The Flightstick has a directional pad (F) structured to rotate to activate four unidirectional sensors (SSS, TTT, UUU, VVV) located on a sheet (Z). Two analog joysticks (A, B), each are structured to activate two bi-directional sensors that are rotary potentiometers (RR, SS, TT, UU), which are electrically connected to a circuit board sheet (QQ) on which are mounted a plurality of finger depressible buttons (J, K, L, N, O, P, Q, R) with resilient dome caps (VV, WW, XX, YY, ZZ, AAA, BBB, CCC) structured to provide tactile feedback while actuating on/off sensors (DDD, EEE, FFF, GGG, JJJ, KKK, LLL, MMM).

[12] It does not appear that claims construed in this manner would have support in the specification.

2. Goto Patent

European Patent Application No. EP 0 867 212 A1, entitled "Operating Device for Game Machines" was filed by Teiyu Goto *et al.* on April 11, 1997, and was published on September 30, 1998 ("Goto") (Exhibit Y). Referring to Figure TT, below, Goto discloses virtually all of the elements contained in the '700 Patent, including the use of unidirectional sensors for directional control (8a, 8b, 8c, 8d), the use of pairs of bi-directional proportional rotational sensors to impart additional direction to a game (displayed as thumb joysticks 14a and 14b), and the use of multiple independent on/off buttons to impart additional game control (22, 23, 24, 11a, 11b, 11c, 11d, 17 and 18.) Goto was not disclosed to the patent office during prosecution of the '700 Patent.[13]

a) Goto discloses 3-D game control

Goto teaches the combination of these multiple input elements to provide three-dimensional control and complex character movements for a video game. (Goto, 16:4-10.) Specifically, Goto states that "This invention relates to an operating device used in a game machine employing a display device for, for example, a television receiver. More particularly, it relates to an operating device controlling the operation of rotating a display character displayed on a display screen, continuously changing its speed of movement or deforming the display character." (Goto, 1:5-11.)

[13] The subject matter of Goto is set forth in whole or part in U.S. Patent No. 6,231,444 ("'444 patent"), issued on May 15, 2001. The '444 patent is a cited reference but its teachings were not relied upon by the Examiner during prosecution of the '700 Patent, either alone or in combination with any references relied upon herein. The '444 Patent was the subject of an anticipation rejection for claims of U.S. Pat. App. No. 09/627,564, which application was filed shortly before the '700 Patent, and which was subsequently expressly abandoned by Armstrong. Additionally, the '444 patent was used in an obviousness rejection for claims of Armstrong's U.S. Pat. Appl. No. 09/721,848, resulting in Armstrong abandoning that application for failure to respond, despite Armstrong's 35 U.S.C. 120 priority claim allegedly predating the '444 patent's effective filing date.

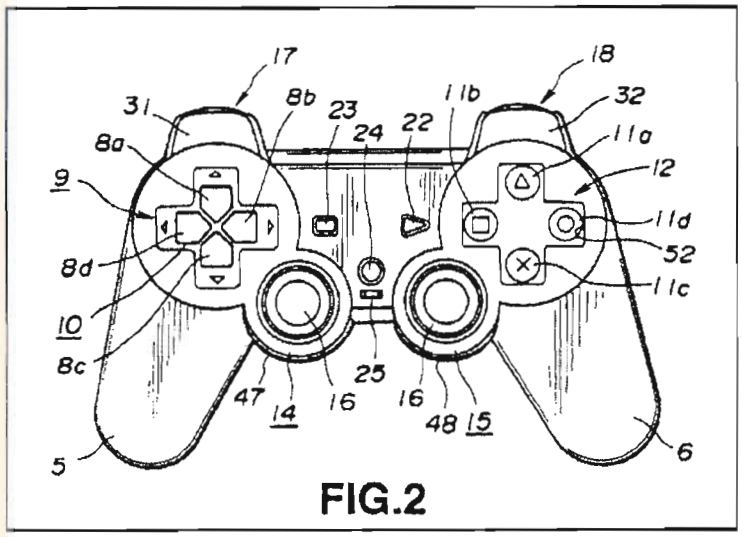


FIG.2

Fig. TT - Goto's Game Controller With Analog Joysticks, Multiple Independent Buttons

Goto further states: "by properly actuating the first to sixth operating units 9, 12, 14, 15, 17 or 18, not only can the display character be moved horizontally, but also the display character can be rotated or moved with accelerated movements in meeting with the game with the three-dimensional spatial picture." (Goto, 15:54 – 16:1.)

b) Goto discloses a circuit board and flexible sheet connected to unidirectional sensors used for character movement

Goto describes connecting a circuit board sheet to a flexible membrane sheet. Specifically, Goto describes mounting an elastic member to a circuit board with moveable contacts. (Goto, 8:57 – 9:8.) Goto further describes that: "The elastic member 35 is sandwiched between the circuit board 38 and the rotation actuating member 10 and includes four movable rubber contacts 34 in association with the first to fourth thrusting operators 8a to 8d." (Goto, 9: 32-35.)

Goto describes using unidirectional sensors for game control:

> On one end side of the main body portion 4 is mounted a first operating unit 9 having first to fourth thrusting operators 8a, 8b, 8c and 8d protruding from the upper surface of the main body portion 4 at right angles to each other, as shown in FIGS. 1 and 2. **The first to fourth thrusting operators 8a, 8b, 8c and 8d making up the first operating unit 9 are unified to a rotation actuating member 10 having its center portion supported for rotation and are arrayed at right angles to one another about the center of rotation of the rotation actuating member 10.** That is, the first to fourth thrusting operators 8a, 8b, 8c and 8d making up the first operating unit 9 are connected as one to one another. The first operator 9 is provided with switch devices, as signal input devices, in association with the first to fourth thrusting operators 8a, 8b, 8c and 8d. The first operator 9 operates as a direction command controller controlling the movement of the display character, such that, by selectively actuating the first to fourth thrusting operators 8a, 8b, 8c and 8d and by selectively turning on/off the switch devices associated with the thrusting operators, the display character is moved in the arraying direction of the thrust operators 8a, 8b, 8c or 8d.

(Goto, 5:37 – 6:1.)

c) Goto discloses use of bi-directional rotational sensors for increased axes of movement

Goto also describes using bi-directional sensors mounted in joysticks to provide additional directional control for the 3-D game. These sensors can be used to impart two additional axes of control each, allowing the controller to provide 3-D control, when used in conjunction with the other sensors in the controller. (Goto, 15:54 – 16:1.) The structure for the joysticks involves the use of two rotational sensors each, and the joysticks are arranged so that they can be operated by the thumbs of the user (*see* Fig. TT, above):

> The third operating unit 14 has a multi-directional input device as shown in FIG. 14. This multi-directional input device has a box-shaped upper frame 50 and an arched first interlock member 51, as shown in FIG. 14. This interlock member 51 has its warped end 52 engaged by a rotational shaft 54 of a first variable resistor **53a constituting a rotary detector** secured to a lateral side 50a of the upper frame 50. The interlock member 51 has on its opposite warped end 52 a boss 55 loosely fitted in an opening 56 formed in a lateral side 50b facing the lateral side 50a of the frame 50 for

> rotatably supporting the first interlock member 51 on the upper frame 50.
>
> An operating shaft 57 is mounted at the center of the upper frame 50. This operating shaft 57 has a saucer-shaped operating member 58 and a disk 59 at its mid portion. This disk 59 has an orifice 60 and a rotation member 16 is mounted on the upper end of the operating shaft 57.
> Within the upper frame 50 is arranged a second interlock member 62 extending at right angles to the operating shaft 57. The second interlock member 62 has a center ball 63 from which are transversely extended a pair of arms 64a, 64b. An elongated slot 65 extends from the upper surface to the lower surface of the ball 63. The operating shaft 57 and the disk 59 are inserted into the elongated slot 65. After registration of the orifice 60 in the disk 59 relative to a lateral side opening 66 in the ball 63, a pin 67 is inserted into the opening 66 and the orifice 60. The operating shaft 57 is thus mounted on the second interlock member 62 for rotation in the elongated slot 65 with the pin 67 as the center of rotation.
>
> The end of the arm 64a of the second interlock member 62 is engaged with the **rotary shaft 54 of the second variable resistor 53b** secured to a lateral side 50c of the upper frame 50, while the end of the opposite side arm 64b is fitted in an elongated opening 70 formed in the lateral side 50d of the upper frame 50 so as to protrude outwardly from the lateral side 50d of the upper frame 50. The operating shaft 57 is passed through the elongated slot 71 in the first interlock member 51 so as to protrude outwards via an opening 72 in the upper surface of the upper frame 50.

(Goto, 12:7-50.)

d) Goto discloses use of multiple additional independent buttons for selecting and performing game functions

Goto also describes using additional on/off buttons to start a game and to select difficulty of the game: "Between the first operating unit 9 and the second operating unit 12 on the upper surface of the main body portion 4 are mounted, side-by-side, a start switch 22 for commanding start of a game and a selection switch 23 for selecting, at the time of starting the game, the degree of ease or difficulty with which the game is played." (Goto, 6:55 – 7:3.) Goto further

discloses additional independent buttons on the right side of the controller for character control or to set other game functions. (Goto, 6:3-18.)

e) Goto discloses use of a motor and offset weight to provide active tactile feedback to a user's hand

Finally, Goto describes the use of tactile feedback vibration within the handles of the controller to increase the reality of game play, though the use of a motor and offset weight: (*See* Fig. UU, below.)

Goto explains the use of this active tactile feedback as comprising a motor and offset weight mounted in the housing of the handle of the game controller:

> The operating device 1 of the present invention is provided with a **vibration imparting mechanism 92** for imparting vibrations to the user so that the game will be played with a higher simulated reality feeling. This vibration imparting mechanism 92 is provided on the proximal end of the first grip portion 5 held by the left hand when the user grips the operating device 1. This vibration imparting mechanism 92 is made up of a driving motor 93 driven by a driving command signal supplied from the main body portion of the game machine and an **offset member 95 mounted on a driving shaft 94 of the driving motor 93**. The offset member 95 is formed by a metallic member of a large weight mass to constitute a semi-circular weight 95a offset with respect to a fitting hole 96 into which is fitted the driving shaft 94 and which operates as a center of rotation.

(Goto, 14:43 –15:12.)

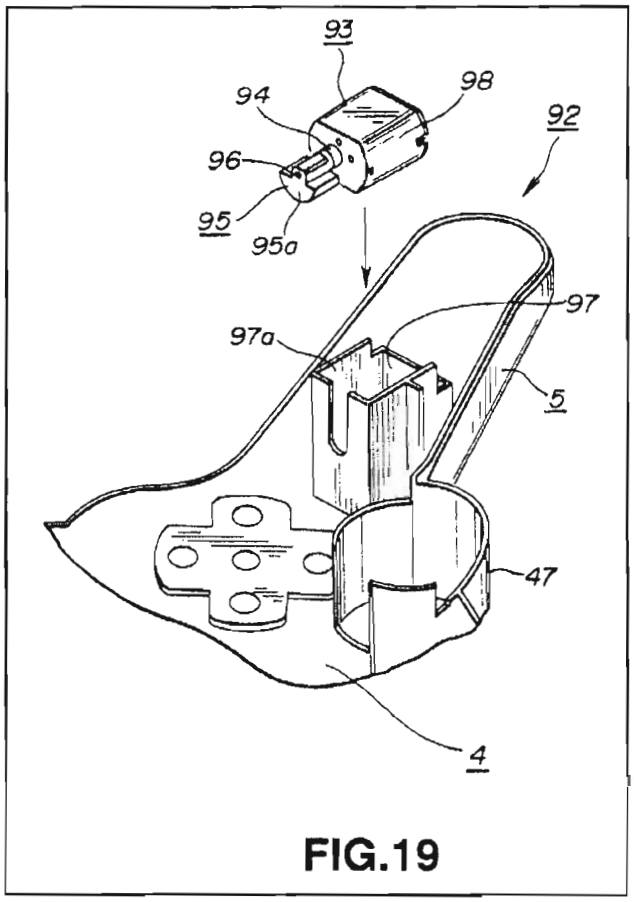


FIG.19

Fig. UU - Goto's Motor and Offset Weight For Providing Vibration Tactile Feedback

Thus, over two years before the '700 Patent Application was filed, Goto had disclosed the vast majority of functions and/or elements that Armstrong claimed were novel in the '700 Patent. Those few elements not disclosed were obvious in view of prior art controllers available at the time, as partially reflected in the remaining references.

3. Sony PlayStation® Analog Controller Manual[14]

The use of multiple analog and on/off controls in a controller with a printed circuit board was well-known two years before Armstrong filed the '700 Patent application. The Sony

[14] The PlayStation® Manual was not disclosed to the patent office during prosecution of the '700 Patent.

> **About the Vibration Feature**
> The accompanying Analog Controller is a sensory controller that has a vibration feature. Turning the vibration feature on or off can be manipulated on a screen in the software.

PlayStation® Manual, p. 9. (Emphasis in original.)

Thus, no less than two years before Armstrong filed his application for the '700 Patent, Sony had both published its patent application claiming a controller containing most of the features claimed as "novel" in the '700 Patent, and explained many of its features and functions in a separate written publication.

4. The Sony Dual Shock Controller

I have reviewed the internal assembly of a Sony Dual Shock Controller (Exhibit AA), which was publicly released in the United States on May 6, 1998. The Dual Shock has many if not most of the features described in the Goto patent and in the Sony PlayStation® Analog Controller Manual, including:

- A housing (WW)
- A "D-pad" input member (A) which pivots to activate on/off sensors (S, T, SS, TT) to sense rotation about two axes
- Two thumbstick input members (B, C), each activating two rotary sensors to sense rotation about two axes (VV, XX, YY, ZZ)
- Multiple thumb-depressible buttons on the face of the controller (D, E, F, G, H, I, J) with dome caps (CC-LL, NN, OO) to provide tactile feedback
- Multiple finger-depressible shoulder buttons (K-N) on the top of the controller, some of which (M, N) pivot upon depression to activate on/off sensors
- On/off sensors (O-T, SS, TT, AAA-CCC, V, W, Y, PP) for all finger and thumb-depressible buttons mounted to circuit board sheet(s)
- A ribbon cable (UU) electrically connecting two rigid circuit boards (U, RR) located on separate planes of the controller, which circuit boards electrically and structurally connect to the sensors of the input member and finger depressible buttons
- Two rumble motors (BB, MM) in the housing (WW) of the controller providing tactile feedback
- A sheet connecting to a large number of the sensors (U, RR)

5. Claim 19 of the '700 Patent is invalid as anticipated and/or obvious[25]

A hand operated controller comprising structure allowing hand inputs rotating a platform on two mutually perpendicular axes to be translated into electrical outputs by four unidirectional sensors to allow controlling objects and navigating a viewpoint, the controller including a tactile feedback means for providing vibration detectable by the user through the hand operating the controller;

a second element movable on two mutually perpendicular axes, said second element structured to activate two bi-directional proportional sensors providing outputs at least in part controlling objects and navigating a viewpoint;

a third element movable on two mutually perpendicular axes, said third element structured to activate two bi-directional proportional sensors providing outputs at least in part controlling objects and navigating a viewpoint;

a plurality of independent finger depressible buttons, each button associated with a button sensor, said button sensor outputs at least On/Off data to allow controlling of the objects.

a) Claim 19 is anticipated by Flightstick

Flightstick contains all of the claimed elements, set forth above.

---

[25] To the extent that controlling objects and navigating a viewpoint is viewed as a limitation of these claims, and requires software, that Anascape never addressed such a limitation in its patents or in its infringement contentions. As I understand these terms, neither the prior art controllers nor the accused controllers work in a vacuum and only provide inputs to a computer system, whose capabilities are defined by the software running on them. It is this software which would interpret the output signals to perform functions in a game, such as controlling objects and navigating a viewpoint. The controller by itself is incapable of doing so. To the extent that Anascape alleges that the accused controllers satisfy these elements of the claim, however, the listed prior art would also satisfy these elements, thus rendering invalid Claim 19 and its dependents. Additionally, the Magellan 3D Controller AutoCAD manual, which was included with the Magellan 3D Controller, discloses using the controller to move either an object or a viewpoint, so to the extent that this is viewed as a limitation of the claims, it would have been obvious over the cited Magellan prior art combinations in view of the Magellan 3D Controller AutoCAD Manual.

To the extent that claims 19-20 and 22-23 of the '700 Patent require as a limitation actually controlling objects and navigating a viewpoint, the claims would still be obvious over the prior art references applied to the claims herein in further view of the 6DOF game Descent discussed in the introduction. Descent allows the player to both control objects and manipulate the player's viewpoint (a spaceship). Descent for the PC is specifically designed to operate with the Cyberman controller. Further, Descent was also released for the Sony Playstation in 1995. Accordingly, it would have been obvious to combine the operation of the Sony controllers (e.g., Dual Shock) with the Descent video game for the Sony Playstation, as there is an express motivation in the video game documentation of each version to use the respective video game controllers.

b) **Claim 19 is further anticipated by Himoto**

Himoto either recites or inherently discloses all of the claimed elements, set forth above.

c) **Claim 19 is further anticipated by Dual Shock**

Dual Shock contains all of the claimed elements, set forth above.

d) **Claim 19 is further anticipated by Dual Shock 2**

Dual Shock 2 contains all of the claimed elements, set forth above.

e) **Claim 19 is obvious over CyberMan in view of Armstrong's admissions in the '891 Patent**

CyberMan contains all the elements of claim 19 as set forth above, with the exception that the third "element" in CyberMan (the shaft of the handle) does not activate bi-directional proportional sensors, but rather corresponding pairs of on/off sensors. It would have been obvious to replace these pairs of on/off sensors with bi-directional proportional sensors, as this was well-known in the art. In addition, Armstrong had previously suggested that this substitution was possible, stating in the '891 Patent that:

> simple on-off contact sensors will indicate the direction that the [input member] is moved but only if it is moved a significant amount positionally sufficient to activate the sensor, and the on-off contact sensor will provide information describing whether the [input member] is at the sensor or not at the sensor, which in either case is valuable and useful information. A more sophisticated proportional positional sensor such as a potentiometer or optical positional sensor, etc. will indicate direction and position to a greater degree . . . . For the purposes of this disclosure the term "sensor" or "sensors" is considered to include not only proximity sensors; variable resistive and/or capacitive sensors, piezo sensors, variable voltage/amperage limiting or amplifying sensors and switches, potentiometers, resistive and optical encoders and the like, but to also include simple on/off switches.

(Armstrong '891, 3:7-15, 25-31.) Thus, it would have been obvious to replace the unidirectional sensors in the handle of CyberMan with bi-directional proportional sensors, such as potentiometers, to "indicate direction and position to a greater degree."

f) Claim 19 is further obvious over CyberMan in view of Magellan 3-D Controller

CyberMan contains all the elements of claim 19 as set forth above, with the exception that the third "element" in CyberMan (the shaft of the handle) does not activate bi-directional proportional sensors, but rather unidirectional sensors. It would have been obvious to replace these unidirectional sensors with bi-directional proportional sensors, as this was well-known in the art. One motivation to do so is found in Armstrong's own admissions:

> [a] more sophisticated proportional positional sensor such as a potentiometer or optical positional sensor, etc. will indicate direction and position to a greater degree . . . .

(Armstrong '891, 3:7-15.)

In fact, Logitech's Magellan 3-D Controller, which was available at the same time that Logitech was selling CyberMan, used six proportional sensors to capture the required six degrees of freedom of its hockey-puck shaped single input member. Because Logitech manufactured and sold both controllers, it would have been well within the knowledge of Logitech's engineers to replace one type of sensor with another.

Thus, it would have been obvious to replace the two pairs of on/off sensors in the handle of CyberMan with two bi-directional proportional sensors, such as potentiometers, used in Magellan 3-D Controller to "indicate direction and position to a greater degree," rendering the claim obvious over the prior art.

g) Additional claim rejections incorporated from Microsoft's Reexamination Request

Additionally, claim 19 is either anticipated by or obvious over the following prior art, as set forth in Microsoft's request for reexamination, which is attached as Exhibit HH, and incorporated by reference.

Claim 19 is Anticipated by:

Goto

Claim 19 is Obvious Over:

Goto in view of Armstrong's Admissions
Goto in view of PlayStation® Manual
Armstrong '891 in view of Armstrong's Admissions
Armstrong '891 in view of Armstrong '828

6. Claim 20 of the '700 Patent is invalid as anticipated and/or obvious

A hand operated controller according to claim 19 wherein the sensors are connected by at least one sheet.

a) Claim 20 is anticipated by Dual Shock

See discussion of Claim 19, above. Dual Shock contains all of the additional elements in Claim 20.

b) Claim 20 is anticipated by Flightstick

See discussion of Claim 19, above. Flightstick contains all of the additional elements in Claim 20.

c) Alternatively, Claim 20 is obvious over Dual Shock in view of Saturn 3D

Dual Shock contains all of the claimed elements, set forth above, but the sensors for the first input member's unidirectional sensors, and the sensors for the finger-depressible buttons are mounted to a circuit board connected by a flexible ribbon cable to a second circuit board to which are mounted the four bi-directional proportional sensors for the two thumbsticks. The Saturn 3D has a similar structure to Dual Shock, with the exception that all of the sensors for the input members and finger-depressible buttons are mounted to a single circuit board. Thus, it would have been obvious to replace the two circuit board structure of Dual Shock with a single circuit board connected to all sensors, as in Saturn 3D.

d) Claim 20 is further anticipated by Dual Shock 2

See discussion of Claim 19, above. Dual Shock 2 contains all of the additional elements in Claim 20.

e) Alternatively, Claim 20 is obvious over Dual Shock 2 in view of Saturn 3D

Dual Shock 2 contains all of the claimed elements, set forth above, but the sensors for the first input member's unidirectional sensors, and the sensors for the finger-depressible buttons are mounted to a flexible membrane sheet circuit board connected to a second circuit board to which are mounted the four bi-directional proportional sensors for the two thumbsticks. The Saturn 3D has a similar structure to Dual Shock 2, with the exception that all of the sensors for the input members and finger-depressible buttons are mounted to a single rigid circuit board, which in turn is connected to a flexible ribbon cable. Thus, it would have been obvious to replace the two circuit board structure of Dual Shock 2 with a single circuit board connected to all sensors, as in Saturn 3D.

f) Claim 20 is further obvious over CyberMan in view of Armstrong's admissions in the '891 Patent

See discussion of Claim 19, above. CyberMan contains all of the additional elements in Claim 20.

g) Claim 20 is further obvious over CyberMan in view of Magellan 3-D Controller

See discussion of Claim 19, above. CyberMan contains all of the additional elements in Claim 20.

h) Claim 20 is further obvious over Himoto in view of Saturn 3D

Himoto either recites or inherently discloses all of the claimed elements, set forth above, other than putting the sensors for all three elements as well as the sensors for the finger-depressible on a single sheet or at least one sheet. Himoto's disclosed modifications, however,

are modifications to a controller very similar in structure to the Saturn 3D controller, a controller made by Sega, the Himoto applicant. The Saturn 3D controller has all of its sensors mounted to a single circuit board sheet, so it would have been obvious to place all the sensors from the controller disclosed in Himoto onto a single sheet.

i) Additional claim rejections incorporated from Microsoft's Reexamination Request

Additionally, claim 20 is either anticipated by or obvious over the following prior art, as set forth in Microsoft's request for reexamination, which is attached as Exhibit HH, and incorporated by reference.

Claim 20 is Anticipated by:

Goto

Claim 20 is Obvious Over:

Goto in view of Armstrong's Admissions
Goto in view of Chandler
Goto in view of PlayStation® Manual
Armstrong '891 in view of Armstrong's Admissions
Armstrong '891 in view of Armstrong '828

7. Claim 22 of the '700 Patent is invalid as anticipated and/or obvious

A hand operated controller according to claim 19 wherein said button sensor outputs data proportionate to depression of one of said buttons.

a) Claim 22 is anticipated by Himoto

Himoto either recites or inherently discloses all of the claimed elements, set forth above.

b) Claim 22 is further anticipated by Dual Shock 2

Dual Shock 2 contains all of the claimed elements, set forth above.

c) Claim 22 is obvious over Dual Shock in view of Saturn 3D

Dual Shock contains all the elements of claim 22, as set forth above, other than buttons with sensors outputting a proportional signal, an element set forth in Saturn 3D. It would have

'700 Claim 19: *Dual Shock*

19. A hand operated controller comprising

allowing hand inputs rotating a platform on two mutually perpendicular axes to be translated into electrical outputs by four unidirectional sensors to allow controlling objects and navigating a viewpoint, the controller including a tactile feedback means for providing vibration detectable by the user through the hand operating the controller;

a second element movable on two mutually perpendicular axes, said second element structured to activate two bi-directional proportional sensors providing outputs at least in part controlling objects and navigating a viewpoint;

a third element movable on two mutually perpendicular axes, said third element structured to activate two bi-directional proportional sensors providing outputs at least in part controlling objects and navigating a viewpoint;

a plurality of independent finger depressible buttons, each button associated with

a button sensor, said button sensor outputs at least On/Off data to allow controlling of the objects.

'700 Claim 19: *Dual Shock*

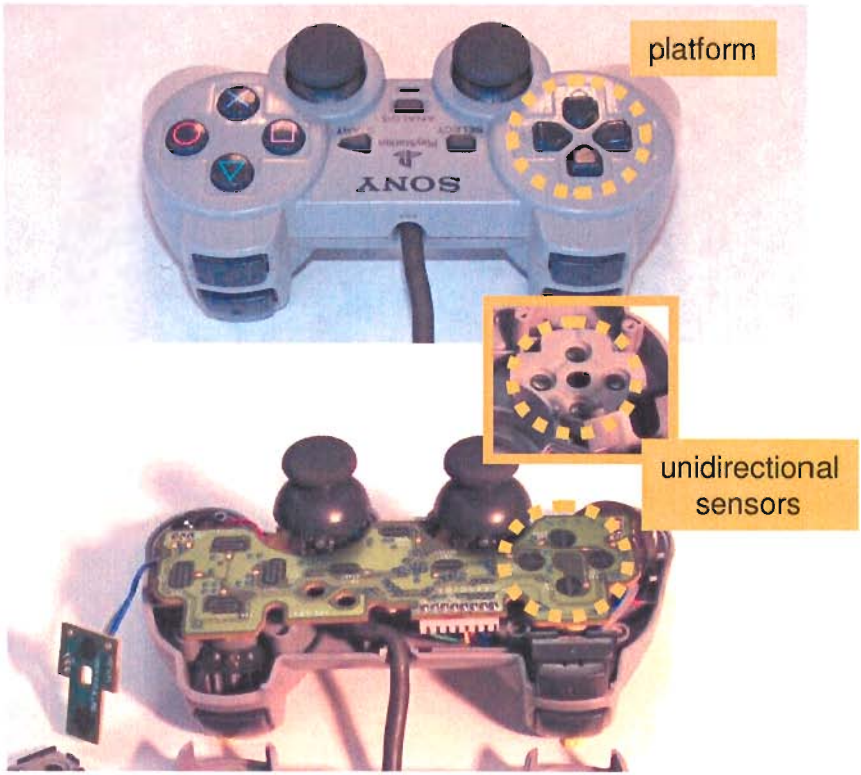
19. A hand operated controller comprising structure allowing hand inputs rotating a platform on two mutually perpendicular axes to be translated into electrical outputs by four unidirectional sensors to allow controlling objects and navigating a viewpoint, the controller including a tactile

a second element movable on two mutually perpendicular axes, said second element structured to activate two bi-directional proportional sensors providing outputs at least in part controlling objects and navigating a viewpoint;

a third element movable on two mutually perpendicular axes, said third element structured to activate two bi-directional proportional sensors providing outputs at least in part controlling objects and navigating a viewpoint;

a plurality of independent finger depressible buttons, each button associated with

a button sensor, said button sensor outputs at least On/Off data to allow controlling of the objects.



'700 Claim 19: *Dual Shock*

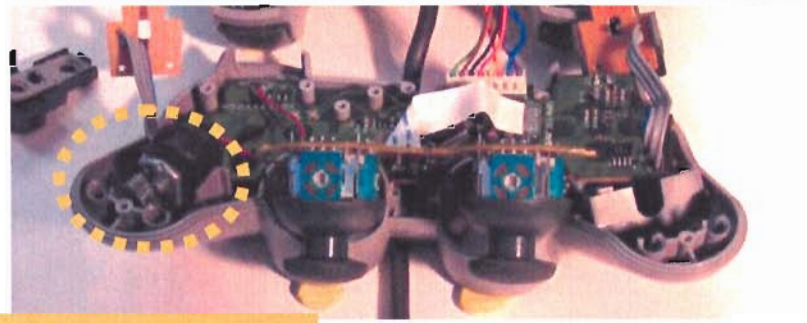
19. A hand operated controller comprising structure allowing hand inputs rotating a platform on two mutually perpendicular axes to be translated into electrical outputs by four unidirectional sensors to allow controlling objects and navigating a viewpoint, the controller including a tactile feedback means for providing vibration detectable by the user through the hand operating the controller;

axes, said second element structured to activate two bi-directional proportional sensors providing outputs at least in part controlling objects and navigating a viewpoint;

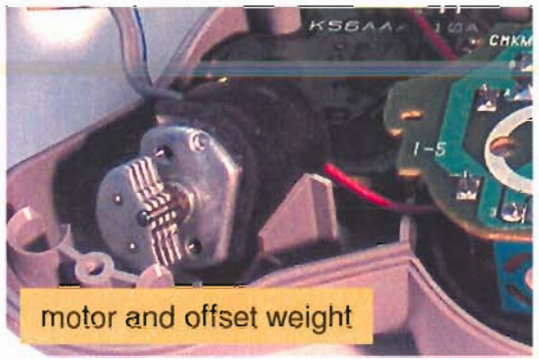
a third element movable on two mutually perpendicular axes, said third element structured to activate two bi-directional proportional sensors providing outputs at least in part controlling objects and navigating a viewpoint;

a plurality of independent finger depressible buttons, each button associated with

a button sensor, said button sensor outputs at least On/Off data to allow controlling of the objects.



tactile feedback means



motor and offset weight

'700 Claim 19: *Dual Shock*

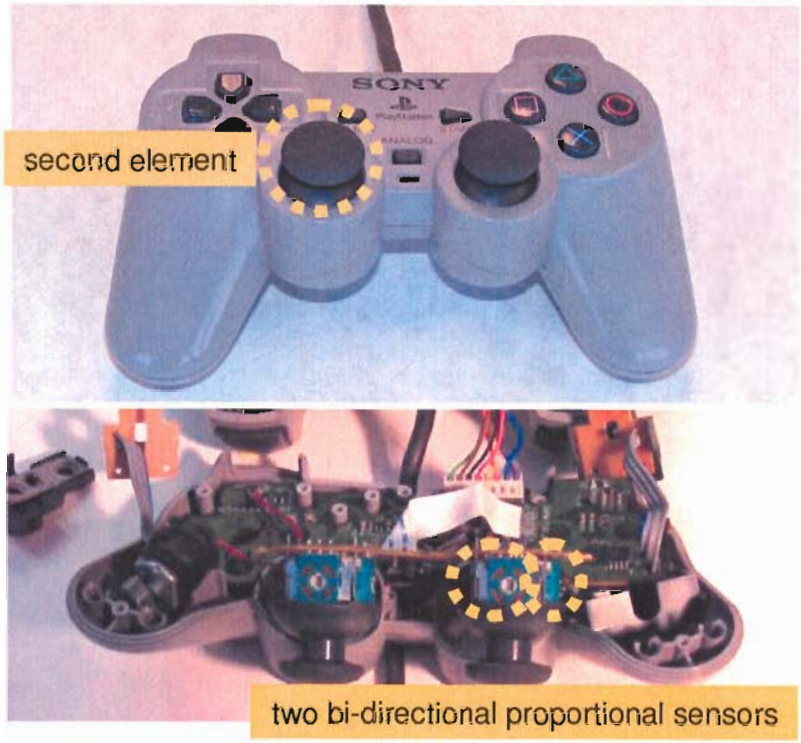
19. A hand operated controller comprising structure allowing hand inputs rotating a platform on two mutually perpendicular axes to be translated into electrical outputs by four unidirectional sensors to allow controlling objects and navigating a viewpoint, the controller including a tactile feedback means for providing vibration detectable by the user through the hand operating the controller;

a second element movable on two mutually perpendicular axes, said second element structured to activate two bi-directional proportional sensors providing outputs at least in part controlling objects and navigating a viewpoint;

bi-directional proportional sensors providing outputs at least in part controlling objects and navigating a viewpoint;

a plurality of independent finger depressible buttons, each button associated with

a button sensor, said button sensor outputs at least On/Off data to allow controlling of the objects.



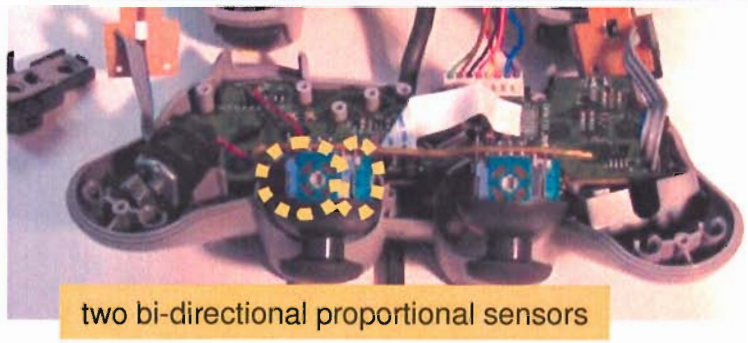
'700 Claim 19: *Dual Shock*

19. A hand operated controller comprising structure allowing hand inputs rotating a platform on two mutually perpendicular axes to be translated into electrical outputs by four unidirectional sensors to allow controlling objects and navigating a viewpoint, the controller including a tactile feedback means for providing vibration detectable by the user through the hand operating the controller;

a second element movable on two mutually perpendicular axes, said second element structured to activate two bi-directional proportional sensors providing outputs at least in part controlling objects and navigating a viewpoint;

a third element movable on two mutually perpendicular axes, said third element structured to activate two bi-directional proportional sensors providing outputs at least in part controlling objects and navigating a viewpoint;

a button sensor, said button sensor outputs at least On/Off data to allow controlling of the objects.



'700 Claim 19: *Dual Shock*

19. A hand operated controller comprising structure allowing hand inputs rotating a platform on two mutually perpendicular axes to be translated into electrical outputs by four unidirectional sensors to allow controlling objects and navigating a viewpoint, the controller including a tactile feedback means for providing vibration detectable by the user through the hand operating the controller;

a second element movable on two mutually perpendicular axes, said second element structured to activate two bi-directional proportional sensors providing outputs at least in part controlling objects and navigating a viewpoint;

a third element movable on two mutually perpendicular axes, said third element structured to activate two bi-directional proportional sensors providing outputs at least in part controlling objects and navigating a viewpoint;

a plurality of independent finger depressible buttons, each button associated with

a button sensor, said button sensor outputs at least On/Off data to allow controlling of the objects.