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

MAD DOGG ATHLETICS, INC.,
Plaintiff,

v.

PELOTON INTERACTIVE, INC.,
Defendant.

Case No. 2:20-cv-00382-JRG

CLAIM CONSTRUCTION MEMORANDUM OPINION AND ORDER

Before the Court is the opening claim construction brief of Mad Dogg Athletics, Inc. ("Plaintiff") (Dkt. No. 64, filed on June 3, 2021),[1] the response of Peloton Interactive, Inc. ("Defendant") (Dkt. No. 65, filed on June 17, 2021), and Plaintiff's reply (Dkt. No. 67, filed on June 24, 2021). The Court held a hearing on the issues of claim construction and claim definiteness on July 15, 2021. Having considered the arguments and evidence presented by the parties at the hearing and in their briefing, the Court issues this Order.

[1] Citations to the parties' filings are to the filing's number in the docket (Dkt. No.) and pin cites are to the page numbers assigned through ECF.

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I. BACKGROUND

Plaintiff alleges infringement of two U.S. Patents: No. 9,694,240 (the "'240 Patent") and No. 10,137,328 (the "'328 Patent") (collectively, the "Asserted Patents"). The '240 and '328 Patents are related through a series of continuation applications to an application filed on February 2, 2005. The '328 Patent issued from an application that is a continuation of the '240 Patent's application.[2]

In general, the Asserted Patents are directed to a stationary exercise bike with technology for providing exercise instructions to the rider in order to provide the rider with an exercise experience similar to that of a live instructor-led class.

The abstracts of the Asserted Patents are identical and provide:

> The invention pertains to a stationary exercise bike along with a display that provides instruction to lead a rider through an exercise program. The invention allows a rider to obtain benefits of a group, instructor-led class though the rider's schedule does not permit the rider to participate in the class. The invention also describes a method of exercising with the foregoing bike and display.

Claim 1 of the '240 Patent and Claim 1 of the '328 Patent, exemplary asserted claims, recite as follows (with terms in dispute emphasized):

> **'240 Patent Claim 1**. ***An exercise bike, comprising***:
> ***a frame that is configured to allow a rider to ride in sitting and standing positions***;
> ***a direct drive mechanism that couples a pedal assembly and a flywheel and that facilitates a smooth transition between sitting and standing positions***;
> a set of handlebars that is coupled to the frame and that provides the rider with at least one hand position;
> ***a mechanism that provides resistance to the flywheel and that is manually adjustable by the rider to vary the pedaling resistance***;
> ***a computer that is coupled to the stationary bike, that is configured to connect with the internet or other computer network*** to access a collection of exercise routines, wherein the exercise routines include instructions regarding cadence, pedaling resistance, and riding positions including sitting and standing positions, ***and that stores power exerted by the rider***;

[2] The Asserted Patents share a substantially identical specification, outside the claim sets. In this Order, the Court cites the '240 Patent with the understanding that the cited material is also found in the '328 Patent.

a display that is coupled to the computer, that displays an exercise routine from the collection of exercise routines so that ***the rider is provided with instructions for the rider to manually adjust pedaling resistance, and instructions for the rider to vary cadence and riding positions including sitting and standing positions***, thereby simulating an instructor-led exercise class, and that displays power exerted by the rider; and

an input device that is coupled to the computer and that enables the rider to input data into the computer.

'328 Patent Claim 1. ***A stationary bike, comprising:***

a frame that is configured to allow a rider to ride in sitting and standing positions;

a direct drive mechanism that couples a pedal assembly and a flywheel and that facilitates a smooth transition between sitting and standing positions;

a set of handlebars that is coupled to the frame and that provides the rider with at least one hand position;

a mechanism that provides resistance to the flywheel and that is manually adjustable by the rider to vary the pedaling resistance;

a computer that is coupled to the stationary bike, that is configured to connect with the internet or other computer network to access a collection of exercise routines, wherein the exercise routines include instructions regarding cadence, pedaling resistance, and riding position including sitting and standing positions;

wherein ***the computer is configured to measure the pedaling resistance and the rider's cadence and is configured to calculate power exerted by the rider based on the pedaling resistance and the rider's cadence***; and

a display that is coupled to the computer, that displays an exercise routine from the collection of exercise routines so that ***the rider is provided with instructions for the rider to manually adjust pedaling resistance, and instructions for the rider to vary cadence and riding positions including sitting and standing positions***;

wherein the display displays cadence, pedaling resistance and the power exerted by the rider.

II. LEGAL PRINCIPLES

A. Claim Construction

"It is a 'bedrock principle' of patent law that 'the claims of a patent define the invention to which the patentee is entitled the right to exclude.'" *Phillips v. AWH Corp.*, 415 F.3d 1303, 1312 (Fed. Cir. 2005) (en banc) (quoting *Innova/Pure Water Inc. v. Safari Water Filtration Sys., Inc.*, 381 F.3d 1111, 1115 (Fed. Cir. 2004)). To determine the meaning of the claims, courts start by considering the intrinsic evidence. *Id.* at 1313; *C.R. Bard, Inc. v. U.S. Surgical Corp.*, 388 F.3d

858, 861 (Fed. Cir. 2004); *Bell Atl. Network Servs., Inc. v. Covad Commc'ns Group, Inc.*, 262 F.3d 1258, 1267 (Fed. Cir. 2001). The intrinsic evidence includes the claims themselves, the specification, and the prosecution history. *Phillips*, 415 F.3d at 1314; *C.R. Bard, Inc.*, 388 F.3d at 861. The general rule—subject to certain specific exceptions discussed *infra*—is that each claim term is construed according to its ordinary and accustomed meaning as understood by one of ordinary skill in the art at the time of the invention in the context of the patent. *Phillips*, 415 F.3d at 1312–13; *Alloc, Inc. v. Int'l Trade Comm'n*, 342 F.3d 1361, 1368 (Fed. Cir. 2003); *Azure Networks, LLC v. CSR PLC*, 771 F.3d 1336, 1347 (Fed. Cir. 2014) ("There is a heavy presumption that claim terms carry their accustomed meaning in the relevant community at the relevant time.") (vacated on other grounds).

"The claim construction inquiry … begins and ends in all cases with the actual words of the claim." *Renishaw PLC v. Marposs Societa' per Azioni*, 158 F.3d 1243, 1248 (Fed. Cir. 1998). "[I]n all aspects of claim construction, 'the name of the game is the claim.'" *Apple Inc. v. Motorola, Inc.*, 757 F.3d 1286, 1298 (Fed. Cir. 2014) (quoting *In re Hiniker Co.*, 150 F.3d 1362, 1369 (Fed. Cir. 1998)). First, a term's context in the asserted claim can be instructive. *Phillips*, 415 F.3d at 1314. Other asserted or unasserted claims can also aid in determining the claim's meaning, because claim terms are typically used consistently throughout the patent. *Id.* Differences among the claim terms can also assist in understanding a term's meaning. *Id*. For example, when a dependent claim adds a limitation to an independent claim, it is presumed that the independent claim does not include the limitation. *Id*. at 1314–15.

"[C]laims 'must be read in view of the specification, of which they are a part.'" *Id*. (quoting *Markman v. Westview Instruments, Inc.*, 52 F.3d 967, 979 (Fed. Cir. 1995) (en banc)). "[T]he specification 'is always highly relevant to the claim construction analysis. Usually, it is dispositive;

it is the single best guide to the meaning of a disputed term.'" *Id*. (quoting *Vitronics Corp. v. Conceptronic, Inc.*, 90 F.3d 1576, 1582 (Fed. Cir. 1996)); *Teleflex, Inc. v. Ficosa N. Am. Corp.*, 299 F.3d 1313, 1325 (Fed. Cir. 2002). But, "'[a]lthough the specification may aid the court in interpreting the meaning of disputed claim language, particular embodiments and examples appearing in the specification will not generally be read into the claims.'" *Comark Commc'ns, Inc. v. Harris Corp.*, 156 F.3d 1182, 1187 (Fed. Cir. 1998) (quoting *Constant v. Advanced Micro-Devices, Inc.*, 848 F.2d 1560, 1571 (Fed. Cir. 1988)); *see also Phillips*, 415 F.3d at 1323. "[I]t is improper to read limitations from a preferred embodiment described in the specification—even if it is the only embodiment—into the claims absent a clear indication in the intrinsic record that the patentee intended the claims to be so limited." *Liebel-Flarsheim Co. v. Medrad, Inc.*, 358 F.3d 898, 913 (Fed. Cir. 2004).

The prosecution history is another tool to supply the proper context for claim construction because, like the specification, the prosecution history provides evidence of how the U.S. Patent and Trademark Office ("PTO") and the inventor understood the patent. *Phillips*, 415 F.3d at 1317. However, "because the prosecution history represents an ongoing negotiation between the PTO and the applicant, rather than the final product of that negotiation, it often lacks the clarity of the specification and thus is less useful for claim construction purposes." *Id.* at 1318; *see also Athletic Alternatives, Inc. v. Prince Mfg.*, 73 F.3d 1573, 1580 (Fed. Cir. 1996) (ambiguous prosecution history may be "unhelpful as an interpretive resource").

Although extrinsic evidence can also be useful, it is "'less significant than the intrinsic record in determining the legally operative meaning of claim language.'" *Phillips*, 415 F.3d at 1317 (quoting *C.R. Bard, Inc.*, 388 F.3d at 862). Technical dictionaries and treatises may help a court understand the underlying technology and the manner in which one skilled in the art might use

claim terms, but technical dictionaries and treatises may provide definitions that are too broad or may not be indicative of how the term is used in the patent. *Id*. at 1318. Similarly, expert testimony may aid a court in understanding the underlying technology and determining the particular meaning of a term in the pertinent field, but an expert's conclusory, unsupported assertions as to a term's definition are not helpful to a court. *Id*. Extrinsic evidence is "less reliable than the patent and its prosecution history in determining how to read claim terms." *Id*. The Supreme Court has explained the role of extrinsic evidence in claim construction:

> In some cases, however, the district court will need to look beyond the patent's intrinsic evidence and to consult extrinsic evidence in order to understand, for example, the background science or the meaning of a term in the relevant art during the relevant time period. *See, e.g., Seymour v. Osborne*, 11 Wall. 516, 546 (1871) (a patent may be "so interspersed with technical terms and terms of art that the testimony of scientific witnesses is indispensable to a correct understanding of its meaning"). In cases where those subsidiary facts are in dispute, courts will need to make subsidiary factual findings about that extrinsic evidence. These are the "evidentiary underpinnings" of claim construction that we discussed in *Markman*, and this subsidiary factfinding must be reviewed for clear error on appeal.

Teva Pharm. USA, Inc. v. Sandoz, Inc., 574 U.S. 318, 331–32 (2015).

B. Departing from the Ordinary Meaning of a Claim Term

There are "only two exceptions to [the] general rule" that claim terms are construed according to their plain and ordinary meaning: "1) when a patentee sets out a definition and acts as his own lexicographer, or 2) when the patentee disavows the full scope of the claim term either in the specification or during prosecution."[3] *Golden Bridge Tech., Inc. v. Apple Inc.*, 758 F.3d 1362, 1365 (Fed. Cir. 2014) (quoting *Thorner v. Sony Computer Entm't Am. LLC*, 669 F.3d 1362, 1365 (Fed. Cir. 2012)); *see also GE Lighting Solutions, LLC v. AgiLight, Inc.*, 750 F.3d 1304, 1309 (Fed. Cir.

[3] Some cases have characterized other principles of claim construction as "exceptions" to the general rule, such as the statutory requirement that a means-plus-function term is construed to cover the corresponding structure disclosed in the specification. *See, e.g., CCS Fitness, Inc. v. Brunswick Corp.*, 288 F.3d 1359, 1367 (Fed. Cir. 2002).

2014) ("[T]he specification and prosecution history only compel departure from the plain meaning in two instances: lexicography and disavowal."). The standards for finding lexicography or disavowal are "exacting." *GE Lighting Solutions*, 750 F.3d at 1309.

To act as his own lexicographer, the patentee must "clearly set forth a definition of the disputed claim term," and "clearly express an intent to define the term." *Id.* (quoting *Thorner*, 669 F.3d at 1365); *see also Renishaw*, 158 F.3d at 1249. The patentee's lexicography must appear "with reasonable clarity, deliberateness, and precision." *Renishaw*, 158 F.3d at 1249.

To disavow or disclaim the full scope of a claim term, the patentee's statements in the specification or prosecution history must amount to a "clear and unmistakable" surrender. *Cordis Corp. v. Boston Sci. Corp.*, 561 F.3d 1319, 1329 (Fed. Cir. 2009); *see also Thorner*, 669 F.3d at 1366 ("The patentee may demonstrate intent to deviate from the ordinary and accustomed meaning of a claim term by including in the specification expressions of manifest exclusion or restriction, representing a clear disavowal of claim scope."). "Where an applicant's statements are amenable to multiple reasonable interpretations, they cannot be deemed clear and unmistakable." *3M Innovative Props. Co. v. Tredegar Corp.*, 725 F.3d 1315, 1326 (Fed. Cir. 2013).

C. Functional Claiming and 35 U.S.C. § 112, ¶ 6 (pre-AIA) / § 112(f) (AIA)

A patent claim may be expressed using functional language. *See* 35 U.S.C. § 112, ¶ 6; *Williamson v. Citrix Online, LLC*, 792 F.3d 1339, 1347–49 & n.3 (Fed. Cir. 2015) (en banc in relevant portion). Section 112, Paragraph 6, provides that a structure may be claimed as a "means … for performing a specified function" and that an act may be claimed as a "step for performing a specified function." *Masco Corp. v. United States*, 303 F.3d 1316, 1326 (Fed. Cir. 2002).

But § 112, ¶ 6 does not apply to all functional claim language. There is a rebuttable presumption that § 112, ¶ 6 applies when the claim language includes "means" or "step for" terms, and that it does not apply in the absence of those terms. *Masco Corp.*, 303 F.3d at 1326;

Williamson, 792 F.3d at 1348. The presumption stands or falls according to whether one of ordinary skill in the art would understand the claim with the functional language, in the context of the entire specification, to denote sufficiently definite structure or acts for performing the function. *See Media Rights Techs., Inc. v. Capital One Fin. Corp.*, 800 F.3d 1366, 1372 (Fed. Cir. 2015) (§ 112, ¶ 6 does not apply when "the claim language, read in light of the specification, recites sufficiently definite structure" (quotation marks omitted) (citing *Williamson*, 792 F.3d at 1349; *Robert Bosch, LLC v. Snap-On Inc.*, 769 F.3d 1094, 1099 (Fed. Cir. 2014))); *Williamson*, 792 F.3d at 1349 (§ 112, ¶ 6 does not apply when "the words of the claim are understood by persons of ordinary skill in the art to have sufficiently definite meaning as the name for structure"); *Masco Corp.*, 303 F.3d at 1326 (§ 112, ¶ 6 does not apply when the claim includes an "act" corresponding to "how the function is performed"); *Personalized Media Communications, L.L.C. v. International Trade Commission*, 161 F.3d 696, 704 (Fed. Cir. 1998) (§ 112, ¶ 6 does not apply when the claim includes "sufficient structure, material, or acts within the claim itself to perform entirely the recited function … even if the claim uses the term 'means.'" (quotation marks and citation omitted)).

When it applies, § 112, ¶ 6 limits the scope of the functional term "to only the structure, materials, or acts described in the specification as corresponding to the claimed function and equivalents thereof." *Williamson*, 792 F.3d at 1347. Construing a means-plus-function limitation involves multiple steps. "The first step … is a determination of the function of the means-plus-function limitation." *Medtronic, Inc. v. Advanced Cardiovascular Sys., Inc.*, 248 F.3d 1303, 1311 (Fed. Cir. 2001). "[T]he next step is to determine the corresponding structure disclosed in the specification and equivalents thereof." *Id.* A "structure disclosed in the specification is 'corresponding' structure only if the specification or prosecution history clearly links or associates that structure to the function recited in the claim." *Id.* The focus of the "corresponding structure"

inquiry is not merely whether a structure is capable of performing the recited function, but rather whether the corresponding structure is "clearly linked or associated with the [recited] function." *Id.* The corresponding structure "must include all structure that actually performs the recited function." *Default Proof Credit Card Sys. v. Home Depot U.S.A., Inc.*, 412 F.3d 1291, 1298 (Fed. Cir. 2005). However, § 112 does not permit "incorporation of structure from the written description beyond that necessary to perform the claimed function." *Micro Chem., Inc. v. Great Plains Chem. Co.*, 194 F.3d 1250, 1258 (Fed. Cir. 1999).

For § 112, ¶ 6 limitations implemented by a programmed general purpose computer or microprocessor, the corresponding structure described in the patent specification must include an algorithm for performing the function. *WMS Gaming Inc. v. Int'l Game Tech.*, 184 F.3d 1339, 1349 (Fed. Cir. 1999). The corresponding structure is not a general purpose computer but rather the special purpose computer programmed to perform the disclosed algorithm. *Aristocrat Techs. Austl. Pty Ltd. v. Int'l Game Tech.*, 521 F.3d 1328, 1333 (Fed. Cir. 2008).

D. Definiteness Under 35 U.S.C. § 112, ¶ 2 (pre-AIA) / § 112(b) (AIA)

Patent claims must particularly point out and distinctly claim the subject matter regarded as the invention. 35 U.S.C. § 112, ¶ 2. A claim, when viewed in light of the intrinsic evidence, must "inform those skilled in the art about the scope of the invention with reasonable certainty." *Nautilus Inc. v. Biosig Instruments, Inc.*, 572 U.S. 898, 910 (2014). If it does not, the claim fails § 112, ¶ 2 and is therefore invalid as indefinite. *Id.* at 901. Whether a claim is indefinite is determined from the perspective of one of ordinary skill in the art as of the time the application for the patent was filed. *Id.* at 911. As it is a challenge to the validity of a patent, the failure of any claim in suit to comply with § 112 must be shown by clear and convincing evidence. *BASF Corp. v. Johnson Matthey Inc.*, 875 F.3d 1360, 1365 (Fed. Cir. 2017). "[I]ndefiniteness is a question of law and in

effect part of claim construction." *ePlus, Inc. v. Lawson Software, Inc.*, 700 F.3d 509, 517 (Fed. Cir. 2012).

When a term of degree is used in a claim, "the court must determine whether the patent provides some standard for measuring that degree." *Biosig Instruments, Inc. v. Nautilus, Inc.*, 783 F.3d 1374, 1378 (Fed. Cir. 2015) (quotation marks omitted). Likewise, when a subjective term is used in a claim, "the court must determine whether the patent's specification supplies some standard for measuring the scope of the [term]." *Datamize, LLC v. Plumtree Software, Inc.*, 417 F.3d 1342, 1351 (Fed. Cir. 2005). The standard "must provide objective boundaries for those of skill in the art." *Interval Licensing LLC v. AOL, Inc.*, 766 F.3d 1364, 1371 (Fed. Cir. 2014).

In the context of a claim governed by 35 U.S.C. § 112, ¶ 6, the claim is invalid as indefinite if the claim fails to disclose adequate corresponding structure to perform the claimed function. *Williamson*, 792 F.3d at 1351–52. The disclosure is inadequate when one of ordinary skill in the art "would be unable to recognize the structure in the specification and associate it with the corresponding function in the claim." *Id*. at 1352.

III. CONSTRUCTION OF DISPUTED TERMS

A. The Preambles of Claims 1 and 14 of the '240 Patent and Claim 1 of the '328 Patent

Disputed Term[4]	Plaintiff's Proposed Construction	Defendant's Proposed Construction
"An exercise bike, comprising:" • '240 Patent Claims 1, 14	Preamble is limiting in its entirety.	The preamble is not limiting. To the extent the preamble is found to be limiting, it should

[4] For all term charts in this order, the claims in which the term is found are listed with the term but: (1) only the highest-level claim in each dependency chain is listed, and (2) only asserted claims identified in the parties' Patent Rule 4-5(d) Joint Claim Construction Chart (Dkt. No. 69) are listed.

Disputed Term[4]	Plaintiff's Proposed Construction	Defendant's Proposed Construction
"A stationary bike, comprising:" • '328 Patent Claim 1		mean: "a bike used for exercise."

Because the parties' arguments and proposed constructions with respect to these terms are related, the Court addresses the terms together.

The Parties' Positions

Plaintiff submits: The preambles of Claims 1 and 14 of the '240 Patent and Claim 1 of the '328 Patent are limiting because the preambles: (1) provide an antecedent basis for terms recited in the bodies of the claims, (2) provide context for understanding other claim terms, (3) state an important aspect of the invention not stated in the bodies of the claims, and (4) were used in prosecution to distinguish the claims from prior art references. Dkt. No. 64 at 8–10.

In addition to the claims themselves, Plaintiff cites the following **intrinsic evidence** to support its position: '240 Patent, at [57] Abstract, col.2 ll.10–19, col.2 ll.42–48, col.3 ll.3–4, col.7 ll.11–19; '240 Patent File Wrapper September 30, 2015 Response at 2 (Plaintiff's Ex. D, Dkt. No. 64-5 at 3), July 6, 2016 Response at 6 (Plaintiff's Ex. G, Dkt. No. 64-8 at 7), January 13, 2017 Response at 6 (Plaintiff's Ex. F, Dkt. No. 64-7 at 7); '328 Patent File Wrapper March 13, 2018 Response at 2 (Plaintiff's Ex. E, Dkt. No. 64-6 at 2).

Defendant responds: The bodies of the claims set forth a structurally complete invention that is understandable without reference to the preambles. The preambles simply state an intended use of the invention as a "stationary" or "exercise" bike. Further, the preambles were not used to distinguish the claims from the prior art during prosecution since the prior art addressed during prosecution was directed to exercise bikes. Therefore, the preambles are not limiting. Dkt. No. 65 at 10–11.

In addition to the claims themselves, Defendant cites the following intrinsic and extrinsic evidence to support its position: **Intrinsic evidence**: '240 Patent col.1 ll.21–27, col.2 ll.42–44; '240 Patent File Wrapper March 31, 2015 Office Action at 2–4 (Defendant's Ex. E, Dkt. No.65-7 at 4–5), September 30, 2015 Response (Defendant's Ex. C, Dkt. No. 65-5), July 6, 2016 Response at 6 (Plaintiff's Ex. G, Dkt. No. 64-8 at 7), January 13, 2017 Response at 6 (Plaintiff's Ex. F, Dkt. No. 64-7 at 7); '328 Patent File Wrapper September 13, 2017 Office Action at 2–4 (Defendant's Ex. F, Dkt. No. 65-8 at 4–5), March 13, 2018 Response (Defendant's Ex. D, Dkt. No. 65-6 at 2). **Extrinsic evidence**: Rawls Decl.[5] ¶¶ 40–45 (Dkt. No. 65-1).

Plaintiff replies: The bodies of the claims do not recite all the structural elements of an exercise bike and refer to limitations stated in the preamble to provide that structure. As such, the preambles are limiting. Dkt. No. 67 at 5.

Analysis

The issue in dispute is whether the preambles of Claims 1 and 14 of the '240 Patent and Claim 1 of the '328 Patent are limiting. They are.

The preambles are limiting. Under Federal Circuit precedent "a preamble is not limiting where a patentee defines a structurally complete invention in the claim body and uses the preamble only to state a purpose or intended use for the invention." *Acceleration Bay, LLC v. Activision Blizzard, Inc.*, 908 F.3d 765, 770 (Fed. Cir. 2018) (quotation marks and citations omitted). A preamble is limiting, however, when it "necessary to give life, meaning, and vitality to the claim." *Catalina Mktg. Int'l v. Coolsavings.com, Inc.*, 289 F.3d 801, 808 (Fed. Cir. 2002) (quotation marks omitted). For example, "dependence on a particular disputed preamble phrase for antecedent basis may limit claim scope because it indicates a reliance on both the preamble and claim body to define the

[5] Declaration of R. Lee Rawls on Claim Construction (June 17, 2021).

claimed invention." *Id*. "Likewise, when the preamble is essential to understand limitations or terms in the claim body, the preamble limits claim scope." *Id*. "Further, when reciting additional structure or steps underscored as important by the specification, the preamble may operate as a claim limitation." *Id*. Here, the preambles provide more than simply a statement of intended use, they reflect an important aspect of the described invention and are essential to properly understanding limitations in the claim body.

The preambles at issue here all provide context essential to a proper understanding of the claim. For instance, Claims 1 and 14 of the '240 Patent and Claim 1 of the '328 Patent each recite "a computer that is coupled to ***the stationary bike***." '240 Patent col.7 l.61, col.8 l.66; '328 Patent col.8 l.13 (emphasis added). There is no antecedent recitation of a bike other than in the preambles.[6] This alone renders the preambles limiting. Further, the claims are replete with terms that are properly understood only with reference to the bike of the preamble. For instance, Claim 1 of the '240 Patent recites "a rider" who can "ride in sitting and standing positions." With reference to the preamble, this "rider" is properly understood to be a rider of the stationary bike (as opposed to a rider of a bus or a horse for example). Similarly, the claim recites a "pedal assembly" and a "pedaling resistance." Again, with reference to the preamble, these are properly understood to refer to the pedals of the bike (as opposed to the pedals of a car or a piano, for example). Similarly, the claim recites "cadence." With reference to the preamble, this is properly understood to refer to the rider's pedaling cadence (as opposed to an acoustic cadence, for

[6] The Asserted Patents use both "exercise bike" and "stationary bike" to refer to a "stationary exercise bike." *See, e.g.*, '240 Patent col.1 ll.24–25 ("An embodiment of the invention relates to the use of an indoor exercise bike …."), col.2 ll.42–43 ("In a first aspect of the invention, a stationary exercise bike for Indoor cycling is used …."). In this context, it is reasonably certain that recitation of "the stationary bike" in the bodies of the claims of the '240 Patent refer to the "exercise bike" in the preambles.

example). Ultimately, the preambles are essential to properly understanding the bodies of the claims and are therefore limiting.

Accordingly, the Court holds that the preambles of Claims 1 and 14 of the '240 Patent and Claim 1 of the '328 Patent are each limiting.

B. "a frame that is configured to allow a rider to ride in sitting and standing positions"

Disputed Term	Plaintiff's Proposed Construction	Defendant's Proposed Construction
"a frame that is configured to allow a rider to ride in sitting and standing positions" • '240 Patent Claims 1, 14 • '328 Patent Claim 1	Plain and ordinary meaning.	Plain and ordinary meaning, i.e., "a bike that allows a rider to sit or stand while riding."

The Parties' Positions

Plaintiff submits: This term has a meaning that is plain without construction. Notably, the distinction between a frame that allows a rider to ride in sitting and standing positions and a frame that does not (such as with a recumbent bike) is readily apparent. Dkt. No. 64 at 10–12.

In addition to the claims themselves, Plaintiff cites the following intrinsic and extrinsic evidence to support its position: **Intrinsic evidence**: '240 Patent fig.1, col.7 ll.12–31; '240 Patent File Wrapper September 30, 2015 Response at 6 (Plaintiff's Ex. D, Dkt. No. 64-5 at 7), January 6, 2016 Office Action at 2–4 (Plaintiff's Ex. J, Dkt. No.64-11 at 4–5). **Extrinsic evidence**: Rawls Report[7] at ¶ 120 (Plaintiff's Ex. H, Dkt. No. 64-9); Rawls Dep.[8] at 146:12–15 (Plaintiff's Ex. I, Dkt. No. 64-10 at 17); Life Fitness Sport, *SU70 and SR70 Exercise Bikes User Manual* (Plaintiff's Ex. C, Dkt. No. 64-4).

[7] Expert Report of R. Lee Rawls on Claim Construction.
[8] Remote Videotaped Deposition of Robert Lee Rawls (May 25, 2021).

Defendant responds: This term has its plain and ordinary meaning, which denotes "a bike that allows a rider to sit or stand while riding." Plaintiff, however, improperly interprets this term to "refer[] to an unclaimed, unspecified 'open geometry.'" Dkt. No. 65 at 16–19.

In addition to the claims themselves, Defendant cites the following intrinsic and extrinsic evidence to support its position: **Intrinsic evidence**: '240 Patent col.1 ll.36–40, col.1 ll.56–60, col.3 ll.5–8, col.3 ll.21–24, col.3 ll.36–39, col.4 ll.33–34, col.5 ll.61–67, col.6 ll.4–7, col.6 ll.21–25, col.7 ll.14–17; U.S. Patent No. 7,022,048 fig.9 (Defendant's Ex. J, Dkt. No. 65-12). **Extrinsic evidence**: Rawls Decl. ¶¶ 62–74 (Dkt. No. 65-1); Life Fitness Sport, *SU70 and SR70 Exercise Bikes User Manual* (Plaintiff's Ex. C, Dkt. No. 64-4).

Plaintiff replies: Plaintiff is not seeking to limit this term to an "open geometry" frame. Defendant's proposed explanation of the plain meaning of this term improperly eliminates the express "frame" and "configured to" limitations. Dkt. No. 67 at 5–6.

Analysis

The parties appear to agree that this term has a plain and ordinary meaning that is accessible to a jury and that it is not limited to an "open geometry." The issues in dispute, then, appear to be whether a "frame" means a "bike" and whether "configured to allow" means "allows." Defendant has not justified straying from the plain meaning of either "frame" or "configured to allow."

Accordingly, the Court rejects Defendant's proposed construction and determines that "a frame that is configured to allow a rider to ride in sitting and standing positions" has its plain and ordinary meaning without the need for further construction.

C. "smooth transition" and "a direct drive mechanism that couples a pedal assembly and a flywheel and that facilitates a smooth transition between sitting and standing positions"

Disputed Term	Plaintiff's Proposed Construction	Defendant's Proposed Construction
"smooth transition" • '240 Patent Claims 1, 14 • '328 Patent Claim 1	Should be construed as part of "a direct drive mechanism that couples a pedal assembly and flywheel and that facilitates a smooth transition between sitting and standing positions"; but if construed separately, plain and ordinary meaning.	indefinite
"a direct drive mechanism that couples a pedal assembly and a flywheel and that facilitates a smooth transition between sitting and standing positions" • '240 Patent Claims 1, 14 • '328 Patent Claim 1	Plain and ordinary meaning (to the extent the term "smooth transition" is not found indefinite).	Plain and ordinary meaning (to the extent the term "smooth transition" is not found indefinite), i.e., "a bike that allows a rider to sit and stand."

Because the parties' arguments and proposed constructions with respect to these terms are related, the Court addresses the terms together.

The Parties' Positions

Plaintiff submits: The "direct drive mechanism …" term, including the "smooth transition" phrase, has a meaning that is plain without construction. In context, whether a transition between sitting and standing riding positions is a "smooth transition" is readily determinable by a person of ordinary skill in the art. Indeed, Defendant's expert testified to such in deposition. That the contextual meaning of "smooth transition" is plain and definite is further shown by the use of that term in a similar context in prior art references of record. Dkt. No. 64 at 13–18.

In addition to the claims themselves, Plaintiff cites the following intrinsic and extrinsic evidence to support its position: **Intrinsic evidence**: '240 Patent col.2 ll.28–37, col.3 ll.17–18, col.7 ll.15–20; U.S. Patent No. 5,961,424[9] col.1 ll.26–31, col.1 ll.37–43, col.8 ll.5–9 (Plaintiff's Ex. K, Dkt. No. 64-12); U.S. Patent No. 6,287,239 col.1 ll.27–34, col.1 ll.41–44 (Plaintiff's Ex. L, Dkt. No. 64-13). **Extrinsic evidence**: Rawls Report at ¶ 134 (Plaintiff's Ex. H, Dkt. No. 64-9); Rawls Dep. at 118:18 – 119:16, 120:4–10, 130:23 – 131:9, 144:12–13, 146:23 – 147:6, 148:21–25 (Plaintiff's Ex. I, Dkt. No. 64-10 at 14–17).

Defendant responds: The Asserted Patents fail to provide the requisite guidance to inform the scope of "smooth transition," which is a term of degree. Contrary to Plaintiff's characterization, Defendant's expert opined that whether a transition is smooth is subjective to each rider. It is not objectively determinable. Further, the prior art references relied upon by Plaintiff use "smooth" in a different context, not in describing a "direct drive mechanism …." Ultimately, the scope of "smooth transition" in the context of the "direct drive mechanism …" term is not clear. "If the Court finds 'smooth transition' to be definite, then the claim term 'a direct drive mechanism that couples a pedal assembly and flywheel and that facilitates a smooth transition between sitting and standing positions' should be given its plain and ordinary meaning: a bike that allows a rider to sit and stand." Dkt. No. 65 at 31–35.

In addition to the claims themselves, Defendant cites the following intrinsic and extrinsic evidence to support its position: **Intrinsic evidence**: '240 Patent col.7 ll.15–21, U.S. Patent No.

[9] U.S. Patent No. 5,961,424 is incorporated by reference into the Asserted Patents. '240 Patent col.3 ll.15–18.

8,944,968[10] File Wrapper November 6, 2014 Response[11] at 2, 5 (Defendant's Ex. K, Dkt. No. 65-13 at 9, 12). **Extrinsic evidence**: Rawls Decl. ¶¶ 141–49 (Dkt. No. 65-1); Rawls Dep. at 122:2–22, 134:22 – 135:14, 136:24 – 137:16, 144:11–16, 146:5–11, 147:3 – 148:13 (Defendant's Ex. H, Dkt. No. 65-10 at 7–15).

Plaintiff replies: U.S. Patent No. 6,287,239 ("*Hernandez*"), discussed in the Asserted Patents and in their prosecution, uses "smooth transition" as it is used in the claims at issue, namely, to denote a "benefit 'derived from the direct drive interaction between the inertia flywheel and the crank arms to which the rider's feet are attached'" (quoting *Hernandez* at col.1 ll.14–31). This shows that it was known in the art how to determine with reasonable certainty whether a transition qualifies as the claim-recited "smooth transition." Dkt. No. 67 at 6–8.

Plaintiff cites further intrinsic and extrinsic evidence to support its position: **Intrinsic evidence**: '240 Patent col.3 ll.11–13, col.7 ll.15–21; U.S. Patent No. 5,961,424 col.1 ll.14–31 (Plaintiff's Ex. K, Dkt. No. 64-12); U.S. Patent No. 6,287,239 col.1 ll.27–44 (Plaintiff's Ex. L, Dkt. No. 64-13); U.S. Patent No. 8,944,968 File Wrapper November 6, 2014 Response at 2 (Defendant's Ex. K, Dkt. No. 65-13 at 9). **Extrinsic evidence**: Rawls Dep. at 147:3–148:6 (Plaintiff's Ex. I, Dkt. No. 64-10 at 14–17).

Analysis

The issues in dispute distill to whether the meaning of "smooth transition" is reasonably certain in the context of the surrounding claim language and the description of the invention. It is.

[10] The Asserted Patents claim priority to the application that issued as U.S. Patent No. 8,944,968. '240 Patent, at [63] Related U.S. Application Data.

[11] Defendant characterizes Ex. K as August 6, 2013 Request for Continued Examination. The submitted exhibit, however, includes a November 6, 2014 Request for Continued Examination and an attached Response to August 6, 2014 Office Action.

The meaning of a "smooth transition" in the claims is reasonably certain given the context of other claim language and the description of the invention. Notably, each of the claims at issue recite "a frame that is configured to allow a rider to ride in sitting and standing positions." '240 Patent col.7 ll.51–52, col.8 ll.55–56; '328 Patent col.8 ll.3–4. These claims all recite a "direct drive mechanism that couples a pedal assembly and a flywheel" that "facilitates a smooth transition between sitting and standing positions." '240 Patent col.7 ll.53–55, col.8 ll.57–59; '328 Patent col.8 ll.5–7. Thus, the smooth transition refers to a transition between the two riding positions. The Asserted Patents explain:

> Bike 10 of the current invention provides many benefits over other stationary bikes that may include some amount of computer guidance. Many such stationary bikes simply do not offer the type of workout that the current bike offers. For example, the LIFECYCLE type bike does not have the geometry to ***permit alternating standing and sitting in a smooth manner***. In contrast, bike 10 of the current invention is intended for alternating standing and sitting and thus allows different riding positions. This in turn burns more calories and provides for a total body workout by using different muscle groups. For example, the standing position allows core abdominal muscles to be used. This is not achieved by the LIFECYCLE type bike.

'240 Patent col.7 ll.12–23. Again, this indicates that the transition refers to alternating between the two riding positions. The direct drive mechanism coupling the pedal assembly to a flywheel, as set forth in the claims, facilitates a smooth transition between the riding positions.

Several patents referenced by or incorporated into the Asserted Patents describe the use of a flywheel/drive mechanism to facilitate smooth riding. For instance, the patents provide:

> Bike 10 preferably includes adjustable seat assembly 12, adjustable handlebar 14 having multiple hand position, variable resistance mechanism 16, ***pedal assembly 18 and flywheel 20 which is coupled to pedal assembly 18 in a direct drive (fixed gear)*** and/or non direct drive e.g., freewheeling configuration. U.S. Pat. Nos. 6,468,185 and 6,793,608 are hereby incorporated by reference herein. A clutching mechanism may also be included which may be preferred where bike 10 is in a fixed gear configuration. U.S. Pat. No. 5,961,424 is hereby incorporated by reference herein.

'240 Patent col.3 ll.8–18 (emphasis added). U.S. Patent No. 5,961,424 ("*Warner*"), explains that a direct drive mechanism with a flywheel enables pedaling without jerky motion, i.e., it enables smooth operation:

> Direct drive exercise bicycles typically utilize a high-inertia flywheel driven by a fixed-gear drive train. … Other benefits are derived from the direct drive interaction between the inertia flywheel and the crank arms to which the rider's feet are attached. ***The inertia flywheel provides a smooth, non-jerky pedaling rhythm*** which provides an efficient and rigorous exercise for the rider, especially at relatively high rpms, such as 60 to 100 rpm.

Warner at col.1 ll.26–31 (emphasis added), Dkt. No. 64-12. *Hernandez*, which is discussed in the Asserted Patents, echoes that a flywheel enables "smooth" operation, in contrast to operation in which the pedals "give way":

> "Spinning" is a cycling class, led by an instructor, during which riders (each on their own stationary "Spinning" cycle) are taken through a very intense workout that includes various positions on the bicycle, such as "climbing" (cycling while standing), "jumping" (alternately sitting and standing, for a period of time), and "free-wheeling" (cycling at a very fast pace). All of the requisite positions and exercises are possible due to the physical construction of ***the "Spinning" cycle***, which differs from standard stationary bicycles, in that it ***contains a 45-pound "flywheel" which allows for manual resistance control and for constant resistance***. ***Thus, the user may stand or sit on the cycle, without having the pedals "give way", as they would with a stationary cycle.***
>
> ***The ability to get a smooth and intense ride*** has made "Spinning" a very popular class.

Hernandez at col.1 ll.22–36 (emphasis added), Dkt. No. 64-13. These references cited in the patents show that—in the art—a smooth operation of an exercise bike, including in standing and sitting positions and the transition between the two positions, refers to operation that is not "jerky," i.e., the pedals do not give way while riding.

The Court is not convinced by Defendant's argument and evidence that "smooth transition" renders any claim indefinite. Defendant disregards the *Warner* and *Hernandez* discussions of "smooth" pedal operation facilitated by a flywheel because those patents are not directed to the

entire "direct drive …" limitation. While it may be true that *Warner* and *Hernandez* do not describe the entire "direct drive …" limitation, the references still provide significant guidance regarding what it means for the operation to be smooth. Similarly, while it may be true that *Hernandez* was distinguished during prosecution of a patent related to the Asserted Patents, the distinction was not based on any understanding of "smooth." U.S. Patent No. 8,944,968 File Wrapper November 6, 2014 Response at 5, Dkt. No. 65-13 at 12. Ultimately, *Hernandez's* and *Warner's* guidance regarding what constitutes "smooth" operation remains unaddressed by Defendant and its expert.

Accordingly, Defendant has failed to prove any claim is indefinite for including "a direct drive mechanism that couples a pedal assembly and a flywheel and that facilitates a smooth transition between sitting and standing positions." The Court further determines that these terms have their plain and ordinary meanings without the need for further construction.

D. "a mechanism that provides resistance to the flywheel and that is manually adjustable by the rider to vary the pedaling resistance"

Disputed Term	Plaintiff's Proposed Construction	Defendant's Proposed Construction
"a mechanism that provides resistance to the flywheel and that is manually adjustable by the rider to vary the pedaling resistance" • '240 Patent Claims 1, 14 • '328 Patent Claim 1	No construction required; plain and ordinary meaning; not governed by 35 U.S.C. § 112(f) (pre-AIA § 112(6)).	As governed by 35 U.S.C. 112(f) (pre-AIA § 112(6)): • **function**: providing resistance to the flywheel in a way that is manually adjustable by the rider to vary the pedaling resistance • **structure**: structure labeled with reference numeral 16 as depicted in Figure 1 (friction brake).

The Parties' Positions

Plaintiff submits: The claims set forth such structural and operational detail of the "mechanism that provides resistance to the flywheel and that is manually adjustable by the rider to vary the

pedaling resistance" that the claim language "provides a category of specific known structures" and the presumption against application of 35 U.S.C. § 112, ¶ 6 therefore stands. In fact, Defendant's expert opined that persons of skill in the art would have been familiar with these devices at the time of the invention (citing Rawls Report at ¶ 144 and Rawls Dep. 152:3–11, 154:10–155:8). Dkt. No. 64 at 18–22.

In addition to the claims themselves, Plaintiff cites the following intrinsic and extrinsic evidence to support its position: **Intrinsic evidence**: '240 Patent fig.1, col.1 ll.42–46, col.1 ll.54–60, col.3 ll.5–15, col.6 ll.39–56; U.S. Patent No. 5,961,424 col.4 l.60, col.7 ll.30–44 (Plaintiff's Ex. K, Dkt. No. 64-12); U.S. Patent No. 6,468,185[12] col.4 ll.51–56 (Plaintiff's Ex. M, Dkt. No. 64-14); U.S. Patent No. 6,793,608[13] col.5 ll.8–14 (Plaintiff's Ex. N, Dkt. No. 64-15). **Extrinsic evidence**: Rawls Report at ¶¶ 144, 146 (Plaintiff's Ex. H, Dkt. No. 64-9); Rawls Dep. at 152:3–11, 154:10 – 155:8 (Plaintiff's Ex. I, Dkt. No. 64-10 at 18–19); *The New Oxford American Dictionary* at 1060 (2001), "mechanism" (Plaintiff's Ex. O, Dkt. No. 64-16 at 4); *Bloomsbury English Dictionary* at 1168 (2d ed. 2004), "mechanism" (Plaintiff's Ex. P, Dkt. No. 64-17 at 4).

Defendant responds: The term "mechanism that provides resistance …" is not a name for structure. Rather, the claimed mechanism is defined solely by the function it performs. Indeed, the Federal Circuit has recognized that "mechanism" is a nonce word akin to "means." The claims at issue are distinguishable from claims in which the structural nature of a "mechanism" term is established by a phrase used to modify "mechanism" or by other claim language that sufficiently sets forth further structural details of the claimed mechanism. Importantly, there is no evidence

[12] U.S. Patent No. 6,468,185 is incorporated by reference into the Asserted Patents. '240 Patent col.3 ll.8–15.
[13] U.S. Patent No. 6,793,608 is incorporated by reference into the Asserted Patents. '240 Patent col.3 ll.8–15.

that the "mechanism that provides resistance …" is limited to a particular class of structures. Rather, the term purports to encompass any and all structure that performs the recited function. The term is therefore subject to § 112, ¶ 6. The only structure disclosed in the Asserted Patents for performing the claim-recited function of the "mechanism that provides resistance …" is the friction brake depicted in Figure 1 and labeled as item 16. Dkt. No. 65 at 23–28.

In addition to the claims themselves, Defendant cites the following intrinsic and extrinsic evidence to support its position: **Intrinsic evidence**: '240 Patent fig.1, col.3 ll.8–18, col.6 ll.49–50. **Extrinsic evidence**: Rawls Decl. ¶¶ 121–27 (Dkt. No. 65-1); Rawls Dep. at 150:9–23, 152:3–154:24 (Defendant's Ex. H, Dkt. No. 65-10 at 16–19); *The New Oxford American Dictionary* at 1060 (2001), "mechanism" (Plaintiff's Ex. O, Dkt. No. 64-16 at 4); *Bloomsbury English Dictionary* at 1168 (2d ed. 2004), "mechanism" (Plaintiff's Ex. P, Dkt. No. 64-17 at 4).

Plaintiff replies: The recited "mechanism that provides resistance …" refers to a class of structures that come in different varieties. Dkt. No. 67 at 8–10.

Plaintiff cites further **extrinsic evidence** to support its position: Rawls Dep. at 149:11 – 150:8, 152:12 – 155:8 (Plaintiff's Ex. I, Dkt. No. 64-10 at 17–19).

Analysis

The dispute distills to whether this term is governed by 35 U.S.C. § 112, ¶ 6. It is not.

Defendant has not overcome the presumption against applying § 112, ¶ 6. The Court begins with the presumption that § 112, ¶ 6 does not apply because the terms do not include the "means" language traditionally used to signal application of the statute. *Williamson*, 792 F.3d at 1347–49 & n.3. This "presumption can be overcome and § 112, para. 6 will apply if the challenger demonstrates that the claim term fails to recite sufficiently definite structure or else recites function without reciting sufficient structure for performing that function." *Id.* at 1349 (quotations omitted).

"[T]he mere fact that the disputed limitations incorporate functional language does not automatically convert the words into means for performing such functions." *Zeroclick, LLC v. Apple Inc.*, 891 F.3d 1003, 1008 (Fed. Cir. 2018). "The question whether [a term] invokes section 112, paragraph 6, depends on whether persons skilled in the art would understand the claim language to refer to structure, assessed in light of the presumption that flows from the drafter's choice not to employ the word 'means.'" *Samsung Elecs. Am., Inc. v. Prisua Eng'g Corp.*, 948 F.3d 1342, 1354 (Fed. Cir. 2020).

The claim language in dispute, read in context, is reasonably used as a name to denote a class of structures and therefore sufficiently denotes the structural nature of the "mechanism that provides resistance to the flywheel and that is manually adjustable by the rider to vary the pedaling resistance" to maintain the presumption against § 112, ¶ 6. For instance, the Asserted Patents provide: "The bikes used in these [exercise] classes typically have a ***resistance device*** to vary how difficult it is to pedal, and the instructor may also instruct participants to vary the resistance to simulate different riding conditions such as hill climbing." '240 Patent col.1 ll.42–46 (emphasis added). This indicates the "resistance device" is used to refer to a class of structures known in the art. *See also*, Rawls Decl. ¶ 122 ("People of skill in the art before 2005 would also have been familiar with these [variable resistance] devices and several other ways to provide manually adjustable resistance to a flywheel, including friction devices and alternator/generator devices, and there were several types of each available."), Dkt. No. 65-1. The patents also describe that a bike embodiment "preferably includes adjustable seat assembly 12, adjustable handlebar 14 having multiple hand position, ***variable resistance mechanism*** 16, " and that "[t]he rider may adjust the ***resistance device*** according to the resistance displayed." '240 Patent col.3 ll.8–10, col.6 ll.45–46 (emphasis added). This indicates that "resistance device" and "resistance mechanism" are used in

the Asserted Patents to refer to the same class of known structures. In this context, the Court understands the "mechanism that provides resistance …" term to refer to the same class of structures. The presumption against application of § 112, ¶ 6 stands.

Accordingly, the Court rejects Defendant's proposed construction and determines that his term has its plain and ordinary meaning without the need for further construction.

E. "computer … configured to …"

Disputed Term	Plaintiff's Proposed Construction	Defendant's Proposed Construction
"a computer that is coupled to the stationary bike, that is configured to connect with the internet or other computer network … and that stores power exerted by the rider" • '240 Patent Claim 1	No construction required; plain and ordinary meaning; not governed by 35 U.S.C. § 112(f) (pre-AIA § 112(6)).	Indefinite, as governed by 35 U.S.C. § 112(f) (pre-AIA § 112(6)), for lacking sufficient structure (i.e., algorithms for the recited functions): • **function**: connecting with the internet or other computer network and storing power exerted by the rider • **structure**: none disclosed
"a computer that is coupled to the stationary bike, that is configured to connect with the internet or other computer network" • '240 Patent Claim 14 • '328 Patent Claim 1	No construction required; plain and ordinary meaning; not governed by 35 U.S.C. § 112(f) (pre-AIA § 112(6))	Indefinite, as governed by 35 U.S.C. § 112(f) (pre-AIA § 112(6)), for lacking sufficient structure (i.e., algorithms for the recited function): • **function**: connecting with the internet or other computer network • **structure**: none disclosed
"the computer is configured to measure the pedaling resistance and the rider's cadence and is configured to calculate power exerted by the rider based on the pedaling resistance and the rider's cadence" • '240 Patent Claim 14 • '328 Patent Claim 1	No construction required; plain and ordinary meaning; not governed by 35 U.S.C. § 112(f) (pre-AIA § 112(6)).	Indefinite, as governed by 35 U.S.C. § 112(f) (pre-AIA § 112(6)), for lacking sufficient structure (i.e., algorithms for the recited functions): • **function**: measuring the pedaling resistance and the rider's cadence and calculating power exerted by the rider based on the pedaling resistance and the rider's cadence • **structure**: none disclosed

Because the parties' arguments and proposed constructions with respect to these terms are related, the Court addresses the terms together.

The Parties' Positions

Plaintiff submits: The term "computer" refers to a class of structures that, as of the earliest priority date, "could have been configured to 'connect' to networks, to 'store' information, to 'measure' inputs and to 'calculate' resulting outputs as is required by the disputed terms and a POSITA would not have required step-by-step instructions to accomplish these tasks." As such, the presumption against application of 35 U.S.C. § 112, ¶ 6 stands. Dkt. No. 64 at 22–28.

In addition to the claims themselves, Plaintiff cites the following intrinsic and extrinsic evidence to support its position: **Intrinsic evidence**: '240 Patent col.3 ll.4–5, col.3 ll.24–28, col.3 ll.58–64, col.4 ll.46–55, col.4 l.66 – col.5 l.7, col.5 ll.29–49, col.6 ll.8–20, col.6 ll.39–50, col.7 ll.4–11; U.S. Patent No. 6,468,185 col.4 ll.47–50 (Plaintiff's Ex. M, Dkt. No. 64-14). **Extrinsic evidence**: Rawls Report at ¶¶ 36, 47 (Plaintiff's Ex. H, Dkt. No. 64-9); Rawls Dep. at 28:15–23, 32:5–10, 62:23 – 64:5, 68:18 – 70:6, 71:7 – 73:19, 77:10–14 (Plaintiff's Ex. I, Dkt. No. 64-10 at 4–9); *IEEE 100 The Authoritative Dictionary of IEEE Standards Terms* at 207–08 (7th ed. 2000), "computer" (Plaintiff's Ex. Q, Dkt. No. 64-18 at 4–5).

Defendant responds: The "computer … configured to …" terms perform a variety of recited functions that require a specialized computer. These terms "do not convey to a [person of ordinary skill in the art] any particular structure or algorithm that performs those functions." Thus, the terms are governed by § 112, ¶ 6. Indeed, Plaintiff represented in briefing on a motion to dismiss under 35 U.S.C. § 101 that the computer of the claims is a "special purpose computer" (quoting Dkt. No. 37 at 18). The Asserted Patents do not disclose any algorithm for any of the claim-recited functions

and therefore the "computer … configured to …" terms fail to comply with § 112, ¶ 6 and thereby render the claims indefinite. Dkt. No. 65 at 19–23.

In addition to the claims themselves, Defendant cites the following **extrinsic evidence** to support its position: Rawls Decl. ¶¶ 47, 72, 78, 103, 108 (Dkt. No. 65-1).

Plaintiff replies: The term "computer" is structural and the claims further recite how the computer is connected to other structural limitations. In this context, the structural nature of the "computer … configured to …" terms is sufficiently set forth to avoid application of § 112, ¶ 6. Dkt. No. 67 at 10–12.

Analysis

There are two issues in dispute for each of the "computer … configured to …" terms. First, whether the term is governed by 35 U.S.C. § 112, ¶ 6. Second, whether the Asserted Patents disclose sufficient structure to provide a definite scope to the term if the term is governed by § 112, ¶ 6. The Court holds these terms are not governed by § 112, ¶ 6 and therefore does not reach the second issue.

Defendant has not overcome the presumption against applying § 112, ¶ 6. To begin, Defendant's argument for § 112, ¶ 6 based on a lack of algorithm in the claims themselves is not founded in law. The Federal Circuit has instructed that the claims themselves do not necessarily need to provide an algorithm for a computer-directed claim term to avoid the ambit of § 112, ¶ 6. Specifically, the *Aristocrat*[14] rule applies only after § 112, ¶ 6 has been invoked and does not apply when determining whether § 112, ¶ 6 should be invoked. *See Apple Inc. v. Motorola, Inc.*, 757 F.3d 1286, 1298 (Fed. Cir. 2014) ("where a claim is not drafted in means-plus-function format,

[14] *Aristocrat Techs. Australia Pty Ltd. v. Int'l Game Tech.*, 521 F.3d 1328, 1333 (Fed. Cir. 2008) ("The corresponding structure for a § 112 P 6 claim for a computer-implemented function is the algorithm disclosed in the specification.").

the reasoning in the *Aristocrat* line of cases does not automatically apply, and an algorithm is therefore not necessarily required. The correct inquiry, when 'means' is absent from a limitation, is whether the limitation, read in light of the remaining claim language, specification, prosecution history, and relevant extrinsic evidence, has sufficiently definite structure to a person of ordinary skill in the art."). Further, "computer" refers to a class of structures and each of the claims provides further structural context by reciting how the computer is connected to the other structural elements and how it interacts with those elements to form the claimed bike. On balance, the "computer … configured to …" terms are sufficiently structural to sustain the presumption against § 112, ¶ 6. *See, e.g.*, *Linear Tech. Corp. v. Impala Linear Corp*., 379 F.3d 1311, 1319–21 (Fed. Cir. 2004) ("circuit [for performing a function]" found to be sufficiently definite structure when the circuit was read in the context of the "qualifying language of [the] claim[s]").

Accordingly, Defendant has failed to prove any claim is indefinite for including any of the "computer … configured to …" terms. The Court further holds that these terms have their plain and ordinary meanings without the need for further construction.

F. "the rider is provided with instructions for …"

Disputed Term	Plaintiff's Proposed Construction	Defendant's Proposed Construction
"the rider is provided with instructions for the rider to manually adjust pedaling resistance, and instructions for the rider to vary cadence and riding positions including sitting and standing positions" • '240 Patent Claim 1 • '328 Patent Claim 1	No construction required; plain and ordinary meaning.	"the rider is provided with instructions, without an instructor, for the rider to manually adjust pedaling resistance and to vary cadence and riding positions including sitting and standing positions"

Disputed Term	Plaintiff's Proposed Construction	Defendant's Proposed Construction
"the rider is provided with instructions for the rider to manually adjust pedaling resistance and to vary cadence" • '240 Patent Claim 14	No construction required; plain and ordinary meaning.	"the rider is provided with instructions, without an instructor, for the rider to manually adjust pedaling resistance and to vary cadence"

Because the parties' arguments and proposed constructions with respect to these terms are related, the Court addresses the terms together.

The Parties' Positions

Plaintiff submits: Defendant's proposed "without an instructor" limitation is not supported by the specification or prosecution history. In fact, the Asserted Patents specify that the invention enables the benefits of an instructor-led class even though the rider is unable to attend the class (citing '240 Patent col.2 l.64–col.3 l.2) and that instructor-provided instructions may be provided by video (citing *id*. at col.2 ll.20–24, col.4 l.66–col.5 l.2) or audio (citing *id*. at col.7 ll.4–11). Dkt. No. 64 at 28–31.

In addition to the claims themselves, Plaintiff cites the following intrinsic and extrinsic evidence to support its position: **Intrinsic evidence**: '240 Patent, at [57] Abstract, col.2 ll.20–24, col.2 l.64–col.3 l.2, col.4 l.66–col.5 l.2, col.7 ll.4–11. **Extrinsic evidence**: Rawls Dep. at 102:2–21, 108:22–109:22 (Plaintiff's Ex. I, Dkt. No. 64-10 at 12–13).

Defendant responds: As clearly set forth in the Asserted Patents, the purpose of the invention is to "provide a bike for use ***without an instructor*** and without requiring participation in an instructor-led class" (Defendant's emphasis). The patents describe an invention that simulates an instructor-led class by providing the rider with computer guidance instead of instructor guidance. The computer guidance is in the form of computer-controlled icons and lights on a display. There

is no description of a human instructor providing instructions to the rider, by video or otherwise. Rather, the patent distinguishes the invention from prior art videos of instructors providing instruction (citing '240 Patent col.2 ll.20–24). Dkt. No. 65 at 12–16.

In addition to the claims themselves, Defendant cites the following intrinsic and extrinsic evidence to support its position: **Intrinsic evidence**: '240 Patent, at [54] Title, [57] Abstract, figs.2A, 2B, col.1 ll.24–29, col.1 ll.63–67, col.2 ll.20–24, col.2 ll.42–44, col.2 l.65–col.3 l.2, col.3 ll.56–60, col.4 ll.56–59, col.4 l.66–col.5 l.3, col.5 ll.50–52, col.5 l.50–col.6 l.56, col.7 ll.5–8, col.7 ll.39–42. **Extrinsic evidence**: Rawls Decl. ¶¶ 46–61 (Dkt. No. 65-1); Rawls Dep. at 108:22–109:22 (Defendant's Ex. H, Dkt. No. 65-10 at 5–6).

Plaintiff replies: The Asserted Patents do not clearly limit the instructions of the claims to exclude instructor-provided instructions. Rather, the patents expressly describe that it was known to provide instructions through an instructor video, that a video player may be incorporated into a device implementing the invention, and that instructions may be provided through the video player. Dkt. No. 67 at 12–13.

Plaintiff cites further intrinsic evidence to support its position: '240 Patent fig.3 col.4 l.66–col.5 l.3.

Analysis

The issue in dispute is whether the claims necessarily preclude the participation of an instructor in providing the rider with instructions. They do not.

Defendant has not identified anything that rises to the exacting standard required to redefine the plain meaning of the claim language to exclude instructions provided by an instructor. Notably, the Asserted Patents are directed to a bike that enables a class-like experience ***without the need for a class***. *See, e.g.*, '240 Patent, at [57] Abstract ("The invention allows a rider to obtain benefits

of a group, instructor-led class though the rider's schedule does not permit the rider to participate in the class."), col.1 ll.50–53 ("However, instructor-led classes generally adhere to a predetermined time schedule. This presents a problem to participants that cannot attend predetermined classes because of their jobs or other scheduling conflicts"), col.2 ll.2 ll.10–12 ("Accordingly, a need exists for a stationary exercise bike for use by an individual who is not participating in an instructor-led class …."). In other words, the invention is not focused on removing the instructor, it is focused on removing the live class. Indeed, that patents teach that the instructions provided to the rider should be like those provided by an instructor in a class:

> Generally, the invention serves to provide instructions to a rider that leads the rider through an exercise program. It is preferred that the instruction be similar to that provided in instructor-led classes so that the rider obtains the benefits of such classes despite the fact that the rider's schedule conflicts with prescheduled instructor-led classes.

Id. at col.2 l.64–col.3 l.2. Further, the patents describe that it was known in the art that instructions may be provided by an instructor outside of a class through a video. *Id*. at col.2 ll.20–23 ("videos of an instructor providing instruction for an indoor cycling bike class have been available for an individual to watch as he or she rides an indoor cycling bike").[15] The patents also describe an embodiment that includes a video player to utilize instructions that are on a video. *Id*. at col.4 l.66–col.5 l.2 ("display 100 may include a device to receive a CD-ROM, DVD, VHS tape or other storage medium that contains or receives riding instructions"). Ultimately, Defendant's proposal to exclude from the scope of the claims any instructor-provided instruction is not justified.

Accordingly, the Court rejects Defendant's proposed constructions and determines that these terms have their plain and ordinary meanings without the need for further construction.

[15] The Asserted Patents criticize prior art systems for "requir[ing] a separate VCR and monitor to play the video." '240 Patent col.2 ll.20–27. They do not, however, criticize the prior art for delivering instructions through a video of an instructor.

G. "a mechanism that measures the rider's cadence"

Disputed Term	Plaintiff's Proposed Construction	Defendant's Proposed Construction
"a mechanism that measures the rider's cadence" • '240 Patent Claim 14	No construction required; plain and ordinary meaning; not governed by 35 U.S.C. § 112(f) (pre-AIA § 112(6))	Indefinite, as governed by 35 U.S.C. § 112(f) (pre-AIA § 112(6)), for lacking sufficient structure: • **function**: measures the rider's cadence • **structure**: none disclosed

The Parties' Positions

Plaintiff submits: As Defendant's expert opined, one of ordinary skill in the art at the earliest priority date would have understood that the "mechanism that measures the rider's cadence" refers to a category of well-known cadence-sensing structures. The surrounding claim language and written description pertaining to the computer configured to measure the cadence further connotes structure for the mechanism. As such, the presumption against 35 U.S.C. § 112, ¶ 6 stands. Dkt. No. 64 at 31–33.

In addition to the claims themselves, Plaintiff cites the following intrinsic and extrinsic evidence to support its position: **Intrinsic evidence**: '240 Patent fig.1, col.3 ll.3–13, col.3 ll.29–31, col.3 l.49–col.4 l.10, col.4 ll.22–29, col.4 l.46–col.5 l.7, col.5 ll.29–49, col.6 ll.8–20, col.7 ll.42–47; U.S. Patent No. 6,468,185[16] col.4 ll.47–50 (Plaintiff's Ex. M, Dkt. No. 64-14). **Extrinsic evidence**: Rawls Report at ¶¶ 64, 93 (Plaintiff's Ex. H, Dkt. No. 64-9); Rawls Dep. at 90:3–21, 94:3–6 (Plaintiff's Ex. I, Dkt. No. 64-10 at 10–11); *Bloomsbury English Dictionary* at 1168 (2d ed. 2004), "mechanism" (Plaintiff's Ex. P, Dkt. No. 64-17 at 4).

[16] U.S. Patent No. 6,468,185 is incorporated by reference into the Asserted Patents. '240 Patent col.3 ll.8–15.

Defendant responds: The term consists solely of a nonce term, "mechanism," and a function. As such, it is governed by § 112, ¶ 6. The Asserted Patents do not disclose any structure corresponding to the claim-recited function. Thus, recitation of "a mechanism that measures the rider's cadence" renders the claim indefinite. Dkt. No. 65 at 28–31.

In addition to the claims themselves, Defendant cites the following intrinsic and extrinsic evidence to support its position: **Intrinsic evidence**: '240 Patent col.6 ll.8–10. **Extrinsic evidence**: Rawls Decl. ¶¶ 77–99, 102–105, 107–19, 129–39 (Dkt. No. 65-1); Rawls Dep. at 90:3–21, 94:3–6 (Defendant's Ex. H, Dkt. No. 65-10 at 3–4).

Plaintiff replies: "[S]electing a known mechanism that measures cadence would have been routine to a POSITA by 2005." Thus, the term refers to a class of structures and is not governed by § 112, ¶ 6. Dkt. No. 67 at 13–14.

Plaintiff cites further **extrinsic evidence** to support its position: Rawls Dep. at 94:3–11 (Plaintiff's Ex. I, Dkt. No. 64-10 at 11).

Analysis

The issue distills to whether "mechanism that measures the rider's cadence" is governed by § 112, ¶ 6. It is. Further, Claim 14 of the '240 Patent is invalid as the patent fails to adequately describe structure for performing the claim-recited function.

The claim at issue provides no guidance regarding the structural nature of this term. It simply indicates that a "mechanism that measures rider's cadence" is distinct from the "computer … configured to measure … the rider's cadence." Specifically, the mechanism and computer are recited separately in the claim:

> 14. An exercise bike, comprising:
> a frame that is configured to allow a rider to ride in sitting and standing positions;

> a direct drive mechanism that couples a pedal assembly and a flywheel and that facilitates a smooth transition between sitting and standing positions;
> a set of handlebars that is coupled to the frame and that provides the rider with at least one hand position;
> a mechanism that provides resistance to the flywheel and that is manually adjustable by the rider to vary the pedaling resistance;
> ***a mechanism that measures the rider's cadence***;
> a computer that is coupled to the stationary bike, that is configured to connect with the internet or other computer network to access a collection of exercise routines, wherein the exercise routines include instructions regarding cadence, pedaling resistance, and riding positions including sitting and standing positions,
> wherein ***the computer is configured to measure*** the pedaling resistance and ***the rider's cadence*** and is configured to calculate power exerted by the rider based on the pedaling resistance and the rider's cadence; and
> a display that is coupled to the computer, that displays an exercise routine selected by the rider from the collection of exercise routines so that the rider is provided with instructions for the rider to manually adjust pedaling resistance and to vary cadence, and that displays power exerted by the rider.

'240 Patent col.8 l.54–col.9 l.14 (emphasis added). This indicates a distinction between the mechanism and the computer. *Becton, Dickinson & Co. v. Tyco Healthcare Grp., LP*, 616 F.3d 1249, 1254 (Fed. Cir. 2010) ("Where a claim lists elements separately, the clear implication of the claim language is that those elements are distinct components of the patented invention." (quotation and modification marks omitted)). The claim does not, however, describe how the mechanism and the computer differ or how the mechanism interconnects or cooperates with the other claim elements to measure the cadence. Notably, there is no suggestion that the mechanism and computer interact to measure the cadence.

The written description of the invention is also devoid of any description of a mechanism that measures the rider's cadence that is distinct from a computer and, unlike the variable-resistance mechanism, the Asserted Patents do not suggest that "mechanism that measures the rider's cadence" is used to denote a class of known structures.

Ultimately, "mechanism that measures the rider's cadence" is not sufficiently definite as a name for structure to avoid application of § 112, ¶ 6 and the '240 Patent does not provide sufficient

description of structure corresponding to measuring the rider's cadence to satisfy the statute's structure-disclosure requirement.

Accordingly, Defendant has established that "mechanism that measures the rider's cadence" is governed by 35 U.S.C. § 112, ¶ 6 and that the Asserted Patents fail to describe sufficient structure corresponding to the function of measuring the rider's cadence. Therefore, Defendant has established that Claim 14 of the '240 Patent is invalid as indefinite.

H. "appropriate cadence" and "the target cadence display revealing the appropriate cadence at which the rider should be pedaling"

Disputed Term	Plaintiff's Proposed Construction	Defendant's Proposed Construction
"appropriate cadence" • '240 Patent Claim 7 • '328 Patent Claim 4	Should be construed as part of "the target display revealing the appropriate cadence at which the rider should be pedaling"; but if construed separately, plain and ordinary meaning; but if construction is required: "a certain range of cadence at which the rider should be pedaling"	Indefinite
"the target cadence display revealing the appropriate cadence at which the rider should be pedaling" • '240 Patent Claim 7 • '328 Patent Claim 4	No construction required; plain and ordinary meaning; but if construction is required: "a certain range of cadence at which the rider should be pedaling displayed to a rider"	Indefinite. *See* "appropriate cadence."

Because the parties' arguments and proposed constructions with respect to these terms are related, the Court addresses the terms together.

The Parties' Positions

Plaintiff submits: In context, the meaning of "appropriate cadence" is plain without construction. The term refers to "a certain range of cadence at which the rider should be pedaling."

As described in the Asserted Patents, the rider is provided "with a certain range of desired cadence" on the target cadence display (quoting '240 Patent col.6 ll.1–20). Dkt. No. 64 at 33–35.

In addition to the claims themselves, Plaintiff cites the following **intrinsic evidence** to support its position: '240 Patent figs.1–4, col.6 ll.1–20, col.6 l.51–col.7 l.3, col.7 ll.31–47.

Defendant responds: The term "appropriate cadence" is subjective to each rider and its scope is uninformed by the Asserted Patents. Notably, "appropriate cadence" does not "refer to the separately claimed 'target cadence.'" Thus, the meaning of the term is not reasonably certain. Dkt. No. 65 at 35–36.

In addition to the claims themselves, Defendant cites the following intrinsic and extrinsic evidence to support its position: **Intrinsic evidence**: '240 Patent col.6 ll.8–20. **Extrinsic evidence**: Rawls Decl. ¶¶ 150–56 (Dkt. No. 65-1).

Plaintiff replies: As set forth in the claims, the "appropriate cadence" is provided to the rider on the "target cadence display." The "appropriate cadence" is not subjective to the rider, it is provided to the rider. Dkt. No. 67 at 14.

Analysis

The issues in dispute distill to whether the meaning of "appropriate cadence" is reasonably certain in the context of the surrounding claim language and the description of the invention. It is.

The claims provide significant context that informs the meaning of "appropriate cadence." For instance, Claims 1 and 7 of the '240 Patent provides as follows:

> **'240 Patent Claim 1**. An exercise bike, comprising:
> a frame that is configured to allow a rider to ride in sitting and standing positions;
> a direct drive mechanism that couples a pedal assembly and a flywheel and that facilitates a smooth transition between sitting and standing positions;
> a set of handlebars that is coupled to the frame and that provides the rider with at least one hand position;

> a mechanism that provides resistance to the flywheel and that is manually adjustable by the rider to vary the pedaling resistance;
> a computer that is coupled to the stationary bike, that is configured to connect with the internet or other computer network to access a collection of exercise routines, wherein ***the exercise routines include instructions regarding cadence, pedaling resistance, and riding positions*** including sitting and standing positions, and that stores power exerted by the rider;
> ***a display*** that is coupled to the computer, ***that displays an exercise routine*** from the collection of exercise routines ***so that the rider is provided with instructions for the rider to manually adjust pedaling resistance, and instructions for the rider to vary cadence*** and riding positions including sitting and standing positions, thereby simulating an instructor-led exercise class, and that displays power exerted by the rider; and
> an input device that is coupled to the computer and that enables the rider to input data into the computer.
>
> 7. The exercise device of claim 1, wherein the display includes a target cadence display, the target cadence display revealing ***the appropriate cadence at which the rider should be pedaling***.

'240 Patent col.1 l.49–col.2 l.10, col.2 ll.32–35 (emphasis added). Claim 1 sets forth a bike that includes a display that displays instructions to "vary cadence" according to an exercise routine. Claim 7 sets forth that the display includes a target cadence display that displays "the appropriate cadence at which the rider should be pedaling." A plain reading of the claims suggests that the "appropriate cadence" is the cadence targeted by the exercise routine.

That the "appropriate cadence" display on the "target cadence display" corresponds to the target cadence for the exercise routine is further supported by the description of the invention. For instance, the Asserted Patents describe:

> The computer may store and generate any number of work out routines including preprogrammed ones, routines saved by the user, and new routines based upon the rider's specific parameters.
>
> Screen 106 preferably includes icons and screens that instruct the rider through the workout with ***different hand positions, riding positions, and varying pedaling speeds***. Hand positions are shown to the rider with a handlebar icon 110 which may include first, second and third hand positions (110(1), 110(2) and 110(3)) that light up at different times signifying that the rider should change his or her hand positions. Hand positions 110(1), 110(2) and 110(3) preferably illuminate at appropriate times.

> ***The rider's appropriate position may be shown*** to the rider through a pair of arrow icons 170 comprised of an up arrow icon 172 and a down arrow icon 174. When the workout requires the rider to be in the standing position, the up arrow icon 172 may be illuminated. When the workout requires the rider to be in the sitting position, the down arrow icon 174 may be illuminated. Both the up arrow icon 172 and the down arrow icon 174 may be illuminated when the rider is to alternate between standing and sitting.
>
> ***Screen 106 may also include a target cadence display 180 that provides the rider with a certain range of desired cadence***. The cadence range displayed may change as the riding position change. For example, a higher cadence range may be specified when the rider is seated and a lower cadence range may be specified when the rider is standing and climbing.

Id. at col.5 l.46–col.6 l.7 (emphasis added). This passage indicates that what is an "appropriate" parameter on the display corresponds to that which is targeted by the exercise routine. *See also, id*. at col.6 ll.9–20 (describing ways in which the rider may be prompted to change cadence "[i]f the rider's cadence is not within the desired range shown on the target cadence display"), col.6 ll.51–56 (describing that a targeted cadence-dependent routine effect "may be achieved by varying the numbers displayed on the target cadence display 180 and/or the resistance display 128").

Ultimately, the claim language and the description of the invention establish with reasonably certainty that the "appropriate cadence" corresponds to the target cadence of the exercise routine.

Accordingly, Defendant has failed to prove any claim is indefinite for including "appropriate cadence." The Court construes "appropriate cadence" as set forth below and further determines that "the target cadence display revealing the appropriate cadence at which the rider should be pedaling" does not require construction apart from the "appropriate cadence."

- "appropriate cadence" means "target cadence of the exercise routine."

IV. CONCLUSION

The Court adopts the constructions set forth above, as summarized in the following table. The parties are **ORDERED** that they may not refer, directly or indirectly, to each other's claim-construction positions in the presence of the jury. Likewise, the parties are **ORDERED** to refrain

from mentioning any portion of this opinion, other than the actual definitions adopted by the Court, in the presence of the jury. Any reference to claim-construction proceedings is limited to informing the jury of the definitions adopted by the Court.

The Court further holds that Claim 14 of the '240 Patent is invalid as indefinite.

The parties are hereby **ORDERED** to file a Joint Notice within fourteen (14) days of the issuance of this Memorandum Opinion and Order indicating whether the case should be referred for mediation. If the Parties disagree about whether mediation is appropriate, the Parties should set forth a brief statement of their competing positions in the Joint Notice.

Section	Term	Construction
A	preambles • '240 Patent Claims 1, 14 • '328 Patent Claim 1	limiting
B	"a frame that is configured to allow a rider to ride in sitting and standing positions" • '240 Patent Claims 1, 14 • '328 Patent Claim 1	plain and ordinary meaning
C	"smooth transition" • '240 Patent Claims 1, 14 • '328 Patent Claim 1	plain and ordinary meaning
	"a direct drive mechanism that couples a pedal assembly and a flywheel and that facilitates a smooth transition between sitting and standing positions" • '240 Patent Claims 1, 14 • '328 Patent Claim 1	plain and ordinary meaning
D	"a mechanism that provides resistance to the flywheel and that is manually adjustable by the rider to vary the pedaling resistance" • '240 Patent Claims 1, 14 • '328 Patent Claim 1	plain and ordinary meaning, not § 112, ¶ 6

Section	Term	Construction
E	"a computer that is coupled to the stationary bike, that is configured to connect with the internet or other computer network … and that stores power exerted by the rider" • '240 Patent Claim 1	plain and ordinary meaning, not § 112, ¶ 6
	"a computer that is coupled to the stationary bike, that is configured to connect with the internet or other computer network" • '240 Patent Claim 14 • '328 Patent Claim 1	plain and ordinary meaning, not § 112, ¶ 6
	"the computer is configured to measure the pedaling resistance and the rider's cadence and is configured to calculate power exerted by the rider based on the pedaling resistance and the rider's cadence" • '240 Patent Claim 14 • '328 Patent Claim 1	plain and ordinary meaning, not § 112, ¶ 6
F	"the rider is provided with instructions for the rider to manually adjust pedaling resistance, and instructions for the rider to vary cadence and riding positions including sitting and standing positions" • '240 Patent Claim 1 • '328 Patent Claim 1	plain and ordinary meaning
	"the rider is provided with instructions for the rider to manually adjust pedaling resistance and to vary cadence" • '240 Patent Claim 14	plain and ordinary meaning
G	"a mechanism that measures the rider's cadence" • '240 Patent Claim 14	indefinite
H	"appropriate cadence" • '240 Patent Claim 7 • '328 Patent Claim 4	"target cadence of the exercise routine"
	"the target cadence display revealing the appropriate cadence at which the rider should be pedaling" • '240 Patent Claim 7 • '328 Patent Claim 4	plain and ordinary meaning

So ORDERED and SIGNED this 28th day of July, 2021.

RODNEY GILSTRAP
UNITED STATES DISTRICT JUDGE