The Honorable Barbara J. Rothstein

IN THE UNITED STATES DISTRICT COURT
FOR THE WESTERN DISTRICT OF WASHINGTON
AT SEATTLE

INVENTIST, INC., Plaintiff, v. NINEBOT INC., et al., Defendants.	Civil Action No. 3:16-cv-5688-BJR ORDER GRANTING PLAINTIFF'S MOTION FOR SUMMARY JUDGMENT; GRANTING IN PART AND DENYING IN PART DEFENDANT'S MOTION FOR SUMMARY JUDGMENT; DENYING IN PART DEFENDANT'S MOTION IN LIMINE

I. INTRODUCTION

Plaintiff Inventist brought suit against Defendant Ninebot, Inc. and its affiliated companies,[1] alleging infringement of U.S. Patent No. 8,807,250 (the "'250 patent") and U.S. Design Patent Nos. D729698 (the "'698 patent") and D673081 (the "'081 patent"). Before the Court are both parties' motions for summary judgment.[2] Having reviewed the motions, the oppositions thereto, the record of the case, and the relevant legal authorities, the Court will grant Plaintiff's motion for summary

[1] Both parties treat Ninebot and its affiliated companies as a single entity, and thus the Court will refer to a single "Defendant."

[2] Part of Defendant's motion for summary judgment also requires ruling on one of Defendant's motions in limine, but the Court will otherwise rule on the remaining motions in limine at a later time.

judgment, grant in part and deny in part Defendant's motion for summary judgment, and deny in part Defendant's motion in limine. The reasoning for the Court's decision follows.

II. BACKGROUND

The '250 patent is the utility patent for a "powered, gyroscopically balanced unicycle device to be used while standing, having leg contact surfaces which are made of a yielding, slightly soft material whose mild friction against the user's legs allows stable, precise control of the device without restraining the legs in any way." 11/8/18 Hodges Decl., Exh. A, Dkt. 51-1. Other important aspects of the device include that it has a "seatless frame," does not have a "vertically ascending control handle," and has a "means for automatically adjusting speed while executing a turn." *See* Claim Construction Order, Dkt. 95 at 5-7. The design patents ('081 and '698) relate to the non-functional aspects of the unicycle's appearance. *See generally* Amended Complaint, Dkt. 38. On September 10, 2021, the Court issued a claim construction order resolving disputes over eight terms in the '250 patent. Claim Construction Order, Dkt. 95. Of those terms, the most relevant at this stage is "leg contact surface," which the Court defined as "a surface, which protrudes from the sides of the device, and which may come into contact with a user's leg, enabling the user to hold the device in place with the lower leg." *Id.* at 6.

Shane Chen is the alleged inventor of the patents and the creator of Inventist and its affiliated companies. Plaintiff, doing business under the name Solowheel, introduced its unicycle product in 2012. Amended Complaint, Dkt. 38 at 4 ¶ 23; 8/15/22 Aitken Decl., Dkt. 126 at PDF 103. Since 2017, Plaintiff has licensed its patents to various companies who manufacture and sell unicycles under their own names. Def. SJ Mtn., Dkt. 125 at 2.

Defendant's products first entered the market in 2014. 8/15/22 Aitken Decl., Dkt. 126 at PDF 103. Defendant has made three different generations of its unicycle, each of which contains several models. Def. Opp'n to SJ, Dkt. 139 at 3. Its first generation is sometimes referred to as

"Ninebot One" and includes the C, C+, E, E+, and P models. *Id.* Its second generation includes the A1, A2, S1, and S2 models, and the third generation is comprised of the Z6, Z8, Z10. *Id.* Plaintiff claims that all of these models infringe both its utility and design patents. *See* Amended Complaint, Dkt. 38 at 5-9. The Court discusses the differences between the generations and models of Defendant's products in greater detail below, and a complete index can be found in Exhibit 3 to the declaration of Defendant's attorney Andrew Aitken. 9/6/22 Aitken Decl., Dkt. 140-3, Exh. 3.

Each party has moved for summary judgment on particular patent claims, defenses, and product models. There is little overlap between the parties' motions, as they each move on different grounds and issues. Accordingly, the Court will first discuss the issues raised in Plaintiff's motion before turning to Defendant's.

III. DISCUSSION

A. Plaintiff's Motion for Summary Judgment

1. Claims 1 and 18 of the Utility Patent

Plaintiff argues that Defendant has not raised a genuine dispute of fact as to claims 1 and 18 of the '250 patent. The crux of those claims is the presence of "leg contact surfaces" used for balance. At claim construction, the Court defined "leg contact surfaces" as "a surface, which protrudes from the sides of the device, and which may come into contact with a user's leg, enabling the user to hold the device in place with the lower leg." Claim Construction Order, Dkt. 95 at 6. Defendant argues that its products do not have leg contact surfaces. *E.g.*, 8/15/22 Hodges Decl., Exh. A-I, Dkt. 128-1 at PDF 55. In its motion for summary judgment, Plaintiff contends that comparing images of Defendant's first-generation product (Ninebot One) and the patented design makes clear that Defendant's product possesses a leg contact surface, and that no reasonable jury

could find otherwise.[3] Pl. SJ Mtn., Dkt. 127 at 6. Furthermore, Plaintiff argues that Defendant's expert's testimony (to the extent it has been proffered) will not be enough to contradict what is obvious from the images. *Id.* at 7-8.

Plaintiff offers the following side-by-side comparison of the patented design (the Solowheel product) and Defendant's Ninebot One:

Solowheel Product Image	Ninebot's Product Image (Ninebot One)
	
	

Pl. SJ Mtn., Dkt. 127 at 6.

Defendant contends that its first-generation models do not have leg contact surfaces within the meaning of the patent because the contact surfaces on Defendant's products do not extend "substantially" longitudinally in the direction of travel, even if they admittedly extend in that direction to some lesser degree. Def. Opp'n to SJ, Dkt. 139 at 2. Defendant concedes that it has

[3] Plaintiff does not mention Defendant's second and third generation products with respect to claims 1 and 18, and thus the Court assumes that it seeks summary judgment only as to the first-generation products.

no expert testimony to counter Plaintiff's position but states that "understanding this limitation does not require expert testimony." *Id.* at 3. Defendant intends to rely on the language of the patent and fact witnesses who will "testify from personal knowledge" and offer non-scientific opinions. *Id.*

The Court finds that Defendant has not raised a genuine dispute of fact as to claims 1 and 18. The difference in the measurements of the two contact surfaces is scarcely visible. More importantly, Defendant has not made any argument as to why this difference is material to whether its products functionally possess leg contact surfaces. To rebut Plaintiff's infringement claims, Defendant would need to establish that a small difference in measurement functionally changes the contact surface, likely with the aid of expert testimony that Defendant undisputedly does not have. Accordingly, the Court grants summary judgment as to the infringement of Defendant's first-generation products on claims 1 and 18 (and dependent claims) of the '250 patent.

2. Invalidity Theories Not Pled in Defendant's Invalidity Contentions (Anticipation, Obviousness, Functionality of Design Patents, Enablement, and Improper Inventorship)

Plaintiff asks the Court to strike Defendant's defenses of anticipation, obviousness, functionality of design patents, enablement, and improper inventorship—all subcategories of invalidity—because they were not properly disclosed in Defendant's invalidity contentions and were thus waived. Defendant claims that it gave Plaintiff sufficient notice of its defenses in its invalidity contentions, during discovery, and in its Answer. Def. Opp'n to SJ, Dkt. 139 at 5.

This district's local rules set forth a mandatory procedure by which both parties must "crystallize [their] disputes early in the case." *Polaris PowerLED Techs., LLC v. Vizio, Inc.*, 2020 WL 4258663, at *5 (C.D. Cal. May 14, 2020) (discussing identical rules); *see also Fullview, Inc. v. Polycom, Inc.*, 2021 WL 5584766 (N.D. Cal. Nov. 30, 2021) (same). A plaintiff must serve a "Disclosure of Asserted Claims and Infringement Contentions," and the defendant responds with "Non-Infringement and Invalidity Contentions." Local Patent Rule 121. A defendant must set out

its invalidity defenses in detail in its invalidity contentions, and it is bound by the disclosures it makes. *Id.*; *Polaris PowerLED Techs., LLC v. Nintendo Co., Ltd.*, 2022 WL 3646575, at *4 (W.D. Wash. Aug. 24, 2022) (noting that local rules "require defendants to provide . . . detailed notice of non-infringement and invalidity contentions"); *Genentech, Inc. v. Trustees of University of Pennsylvania*, 2012 WL 424985, at *1 (N.D. Cal. Feb. 9, 2012) (analyzing identical rule); *Beco Dairy Automation, Inc. v. Global Tech Sys.,* 2015 WL 925588, at *9 (E.D. Cal. Mar. 3, 2015) (noting some districts require detailed invalidity contentions to satisfy notice requirement). For some defenses—such as anticipation and obviousness—the local rules require that a defendant identify "[e]ach item of prior art that allegedly anticipates each Asserted Claim or renders it obvious. Prior art patents shall be identified by number, country of origin, and date of issue." Local Patent Rule 121(b). The parties' disclosures in their opposing contentions set the boundaries of discovery. Local Patent Rule 122.

Prior to discovery, Defendant mentioned the defenses of anticipation, obviousness, functionality of design patents, enablement, and improper inventorship only in its Answer (filed February 16, 2017) to Plaintiff's initial complaint. The Answer stated:

> Inventist's allegations of infringement of the '250 Patent are barred because at least Claim 1 of the '250 Patent is invalid for failure to comply with one or more requirements of 35 U.S.C. §§ 102, 103 and/or 112. In particular, and without limitation, at least Claim 1 of the '250 Patent is invalid under 35 U.S.C. § 102 as anticipated by EP 1174334A2, to Prof. Dr. Klaus Hofer ("the EP 334 Application"), and/or is invalid under 35 U.S.C. § 103 as obvious in view of the EP 334 Application, alone or in combination with other prior art, including without limitation US App. No. US 2009/0266629 A1, to Marc Simeray et al. Moreover, at least Claim 1 of the '250 Patent is invalid under 35 U.S.C. § 112 as indefinite and/or for failure to provide an enabling disclosure, and one or more other claims are invalid under 35 U.S.C. § 112 ¶ 6 for failure to disclose sufficient structure corresponding to means-plus-function limitations.

Answer, Dkt. 14 at 5 ¶ 39.

The Court finds that this does not amount to a timely disclosure of the defenses in question.

Although these defenses were mentioned in Defendant's initial Answer, many of Defendant's subsequent actions suggested that it did not intend to pursue them. For one, Defendant never answered Plaintiff's amended complaint to indicate whether the defenses still applied. Furthermore, Defendant was required to disclose all of its invalidity defenses in its invalidity contentions, and it is undisputed that Defendant's invalidity contentions (filed February 18, 2018) do not mention anticipation, obviousness, functionality of design patents, enablement, or improper inventorship. 9/6/22 Aitkin Decl., Dkt. 140-5, Exh. 5. When Defendant served its invalidity contentions a year after its Answer, it gave no indication that it intended pursue any defenses not disclosed therein. Defendant apparently sought some discovery related to these defenses, but it did not seek to amend its invalidity contentions to clarify which defenses it was asserting. *See* Pl. Reply, Dkt. 147 at 5-7. This is particularly problematic because the local rules explicitly require that a defendant produce documents to support its invalidity contentions. Local Patent Rule 122; *see also Corus Realty Holdings, Inc. v. Zillow Grp., Inc.*, 2021 WL 2660011, at *6 (Fed. Cir. 2021) (affirming district court's striking invalidity defenses because "solely submitting an untimely expert report containing such contentions cannot be sufficient").

Defendant's failure to timely disclose its defenses was not merely a procedural error—it materially prejudiced Plaintiff's ability to counter Defendant's arguments, and it is clear that, up until Defendant filed its opposition to Plaintiff's summary judgment motion, Plaintiff was unsure which defenses Defendant was asserting and on what basis. *See* Pl. SJ Mtn., Dkt. 127 at 10-12. Moreover, Defendant does not cite any case in which a court found that mentioning defenses in an Answer excused their not being detailed in a defendant's invalidity contentions. Rather, courts in this district have noted that defenses and counterclaims can be less detailed in an Answer because the local rules "require detailed disclosures soon after an action is filed." *Polaris*, 2022 WL

3646575, at *4 (citing *TCL Commc'ns Tech. Holdings Ltd. v. Telefonaktiebolaget LM Ericsson*, Case No. SACV 14–00341 JVS (ANx), 2014 WL 12588293, at *8-9 (C.D. Cal. Sept. 30, 2014); *Play Visions, Inc. v. Dollar Tree Stores, Inc.*, No. C09-1769MJP, 2010 WL 11442909, at *1 (W.D. Wash. Nov. 30, 2010)). Accordingly, the Court finds that only defenses properly asserted in Defendant's invalidity contentions—more particularly, indefiniteness and inadequate written description—were timely disclosed, and the defenses of anticipation, obviousness, functionality of design patents, enablement, and improper inventorship were waived.

3. Invalidity Theories Pled in Defendant's Invalidity Contentions (Indefiniteness and Written Description)

Plaintiff does not claim that Defendant's indefiniteness and written-description defenses were waived, but instead challenges them on substantive grounds. *See* Pl. SJ Mtn., Dkt. 127 at 16-17.

a. Indefiniteness

Plaintiff's motion for summary judgment argues that Defendant has failed to establish that any of the patent's claims are indefinite. Pl. SJ Mtn., Dkt. 127 at 20. Defendant's opposition to Plaintiff's summary judgment motion is silent on the issue of indefiniteness, and thus it appears that Defendant no longer seeks to maintain the defense. *See* Def. Opp'n to SJ, Dkt. 139. The Court finds the indefiniteness defense to be waived, and summary judgment is appropriate as to that defense.

b. Adequacy of Written Description

Each patent claim must satisfy the written-description requirement of 35 U.S.C. § 112 or the whole patent is invalid. *See Microsoft Corp. v. i4i Ltd. P'ship*, 564 U.S. 91, 131 S. Ct. 2238, 2242, 180 L.Ed.2d 131 (2011). To satisfy the requirement, "the description must 'clearly allow persons of ordinary skill in the art to recognize that [the inventor] invented what is claimed.'" *Ariad*

Pharm., Inc. v. Eli Lilly & Co., 598 F.3d 1336, 1351 (Fed. Cir. 2010); *see also Orthopaedic Hosp. v. Encore Med., L.P.*, 2022 WL 254956, at *14 (S.D. Cal. Jan. 7, 2022) (citing *Carnegie Mellon Univ. v. Hoffmann-La Roche Inc.*, 541 F.3d 1115, 1122 (Fed. Cir. 2008)). In other words, the patent's description of the invention must match what was actually invented. The adequacy of a written description is a question of fact but may be decided at summary judgment if no reasonable jury could find the description inadequate. *See Orthopaedic Hosp.*, 2022 WL 254956, at *17; *Ariad*, 598 F.3d at 1351; *Berkheimer v. HP Inc.*, 890 F.3d 1369, 1370 (Fed. Cir. 2018).

Defendant asserts that Claims 1-11 and 13-20 of the '250 patent are invalid for failing to comply with the written-description requirement. Def. Opp'n to SJ, Dkt. 139 at 6; 8/15/22 Hodges Decl., Dkt. 128-1, Exh. A-I at PDF 69-80. First, Defendant contends that the patent does not adequately describe the positive limitations: "means for adjusting speed while executing a turn;" "sideways lean sensor;" "means for automatically adjusting fore-aft pitch while executing a turn in response to detection of sideways leaning of the vehicle." *Id.* at 11-13. Next, Defendant argues that the negative claim limitations "seatless frame" and "without a vertically ascending control handle" are improperly included in the written description because they were added only to distinguish the patent from the prior art. Def. Opp'n to SJ, Dkt. 139 at 6.

Plaintiff moves for summary judgment on Defendant's written-description defense and submits expert testimony to contest Defendant's characterization of the disputed claims. Pl. SJ Mtn., Dkt. 127 at 16-17; 8/15/22 Hodges Decl., Dkt. 128-2, Exh. J-R. Defendant does not proffer expert testimony in support of its defense but maintains that the jury can determine the adequacy of the patent's written descriptions without an expert. The Court will discuss the positive and negative claim limitations separately.

(1) Positive Claim Limitations

Plaintiff submits the testimony of Dr. Andrew Smith, an experienced physicist and

mechanical engineer, to explain how a person of ordinary skill in the art would understand both of the positive claim limitations at issue. *See* 8/15/22 Hodges Decl., Dkt. 128-1, Exh. A-I at PDF 121-167; 8/15/22 Hodges Decl., Dkt. 128-2, Exh. J-R. Regarding the written description of the positive claim limitations "means for adjusting speed while executing a turn," "sideways lean sensor," "means for automatically adjusting fore-aft pitch while executing a turn in response to detection of sideways leaning of the vehicle," Dr. Smith explained:

> A [person of ordinary skill in the art], in view of these teachings, would have recognized that the taught gyroscopic system would have the ability to provide acceleration and deceleration as well as tilting the device in the fore-aft plane and that this same gyroscopic system could have configured to provide the taught adjustments to the vehicle's speed and for aft tilt to compensate for a rider changing stance during a turn.

Pl. SJ Mtn., Dkt. 127 at 17-18.

As noted above, Defendant proffers no expert testimony to rebut this explanation. Instead, Defendant uses its brief to expound upon its own analysis of how a person skilled in the art would understand the claim language. For example, Defendant argues that Claim 13's written description is inadequate because "there is no mention of any specific structure in the specification that performs the function other than a generic 'sensor and control means.'" Def. Opp'n to SJ, Dkt. 139 at 13. With regard to Claim 15, Defendant contends that "there is nothing that even connects the concept of 'fore and aft pitch' adjustment in response to turning or speed adjustment." *Id.* Defendant essentially takes the position that this language is so obviously inadequate that a layperson would recognize it as such without the aid of expert testimony.

Defendant is mistaken. Although there is no *per se* rule that a written-description defense must be supported by expert testimony, expert analysis is necessary in cases where the factfinder cannot readily apprehend how a person of ordinary skill in the art would understand the disputed claims. In such cases, courts have granted summary judgment on written-description defenses

because the defendant lacked expert testimony. *See Lucent Techs. Inc. v. Gateway, Inc.*, Nos. 02CV2060- B (CAB); 03CV0699-B (CAB); 03CV1108-B (CAB), 2007 WL 1461406, art *6–7 (S.D. Cal. May 15, 2007) (granting summary judgment for Plaintiff on written-description defense where defendant's assertion that the patent alone, without expert testimony, would evidence invalidity was "unrealistic"); *Orthopaedic Hosp.*, 2022 WL 254956, at *15 (same).

The Court finds that the alleged written-description deficiencies identified by Defendant are highly technical, and a layperson would not readily understand whether the claims are sufficiently detailed. Only Plaintiff has proffered expert testimony that attempts to clarify the relevant language. Arguments made in Defendant's briefs are not a substitute for evidence, and Defendant has no vehicle for presenting its analysis to a jury. Defendant may envision a trial in which it would counter Plaintiff's case by cross-examining Dr. Smith, but Defendant cannot clearly articulate its theory of the disputed claims solely by poking holes in Plaintiff's. As one court put it, "[c]ross-examination is not appropriately used in a written description inquiry at the expense of a meaningful analysis of the specification and claims from the perspective of a person of ordinary skill in the art." *Orthopaedic Hosp.*, 2022 WL 254956, at *17 (citing *Suffolk Techs., LLC v. AOL Inc.*, 752 F.3d 1358, 1367 (Fed. Cir. 2014)). The dearth of evidence supporting Defendant's analysis is exacerbated by the elevated burden of clear and convincing evidence that applies to all invalidity defenses. *See* 35 U.S.C. § 282(a); *Microsoft Corp. v. i4i Ltd. P'ship*, 131 S. Ct. 2238, 2242 (2011). Without any way to counter Dr. Smith's testimony—which Defendant concedes is admissible—Defendant cannot carry its burden as to the disputed positive claim limitations.

(2) Negative Claim Limitations

The written-description requirement also encompasses the validity of "negative claim limitations." *Santarus Inc. v. Par Pharm., Inc.*, 694 F.3d 1344, 1351 (Fed. Cir. 2012). A negative claim limitation describes not what a patent is, but what it is not. For example, Plaintiff's patent is

described as a unicycle "without a vertically ascending control handle." Pl. SJ Mtn., Dkt. 127 at 15-18; Def. Opp'n to SJ, Dkt. 139 at 8-10. Just like positive claim limitations, negative claim limitations must "reflect[] [to a person of ordinary skill in the art] what the specification shows has been invented." *All Dental Prods., LLC v. Advantage Dental Prods., Inc.*, 309 F.3d 774, 779 (Fed. Cir. 2002). Negative limitations must serve some purpose in delineating the scope of the invention and must evidence "a reason [for] exclude[ing] the relevant limitation." *Santarus*, 694 F.3d at 1351; *see also Novartis Pharm. v. Accord Healthcare*, Appeal No. 2021-1070 (Fed. Cir. Jan. 3, 2022). A patentee generally may not insert limitations solely "to avoid the prior art." *Inphi Corp. v. Netlist*, 805 F.3d 1350, 1356 (Fed. Cir. 2015).

The negative claim limitations at issue are those containing the phrases "seatless frame" or "without a vertically ascending control handle." Pl. SJ Mtn., Dkt. 127 at 15-18; Def. Opp'n to SJ, Dkt. 139 at 8-11. The parties' arguments on these negative limitations mirror their arguments regarding the positive limitations. Defendant contends that both phrases fail to comply with the written-description requirement. *Id.* at 10-11. Defendant believes a jury will find these negative limitations are inadequately described based on the plain language of the patent and its prosecution history. *Id.* at 10-16. Defendant thus maintains that expert testimony is not required. Def. Opp'n to SJ, Dkt. 139 at 10. Plaintiff disputes Defendant's characterization of the claim language and proffers testimony from Dr. Smith. *E.g.*, Pl. SJ Mtn., Dkt. 127 at 18-19. Plaintiff contends that Defendant cannot raise a genuine dispute of fact without its own expert. *Id.* at 19.

In his expert report, Dr. Smith opines that both of the negative limitations at issue "would have had an obvious meaning to a [person of ordinary skill in the art]" and thus that their written descriptions are not deficient. *See* 8/15/22 Hodges Decl., Dkt. 128-2, Exh. J-R at 27-28. With respect to the limitation "without a vertically ascending control handle," Dr. Smith stated: "In view

of this teaching, a [person of ordinary skill in the art] would have understood what is meant by the phrase 'vertically ascending control handle' in that it would be a vertical handle used to control the vehicle to the same degree as the taught control surfaces of the [prior art]." *Id.* at 27.

In its opposition, Defendant relies solely on its own analysis of the claim language. With respect to a "seatless frame," Defendant argues "[t]he absence of a seat is not inherent to the invention . . . . [and] [t]here was no reason to include the . . . limitation except to distinguish the claims from the prior art." Def. Opp'n to SJ, Dkt. 139 at 9. Likewise, Defendant argues that the limitation "without a vertically ascending control handle" is "not inherent to the operation of the device." *Id.*at 11.

Defendant's negative-limitation arguments suffer from the same deficiencies as its positive-limitation arguments. Once again, Defendant's reliance on the plain language of the patent claims is misplaced, as its meaning is not as self-evident as Defendant suggests. For a jury to determine whether a particular limitation is "inherent to the operation of [a] device," the jury must necessarily understand the operation of the device well enough to determine which features are "inherent" to its function. Only Plaintiff has proffered an expert who will explain the operation of the device, and without its own expert Defendant will be unable to effectively dispute that explanation. As previously noted, Defendant cannot simply present the analysis from its briefs at trial. Such analysis would have to come from a credible source, and Defendant does not have one. Furthermore, for the reasons stated above, cross-examination of Dr. Smith will not be enough for Defendant to present a coherent interpretation of the disputed claims to the jury. Therefore, Defendant has not raised a genuine dispute of fact as to the patent's written descriptions, and the Court grants summary judgment for Plaintiff on this defense.

B. Defendant's Motion for Summary Judgment

1. Damages for Past Infringement

a. The Patent in Suit

It is uncontested that Chen is the inventor of the patents. Def. SJ Mtn., Dkt. 125 at 2. It is undisputed that Inventist was the first record owner of these patents from their inception in 2012 until August 3, 2017. However, rights to the patents were transferred several times to different persons and entities between 2017 and 2019, until Inventist eventually regained ownership in 2019. Although it is undisputed that most rights to the patents were transferred through these transactions, Defendant claims that the right to sue for past infringement—specifically, during the period in which Inventist did not hold title to the patent—is not available to Plaintiff because the agreements that transferred ownership did not expressly provide for it.

b. The Assignment of Rights to the Patent

On August 3, 2017, Chen entered into an operating agreement (the "Operating Agreement") with a Chinese company concerning the establishment of a joint venture to produce and sell the patents-in-suit. 9/6/22 Chen Decl., Dkt. 133, Exh. A ¶ 7. Chen initially assigned the patent rights to the joint venture. *Id.* ¶ 8, Exh. A at 10. However, the joint venture subsequently created a new entity, Future Wheel Technologies, Inc. ("Future Wheel"),[4] and assigned it the patent rights. The Operating Agreement contained a reversion provision that provided, in relevant part:

> [U]pon termination of this Agreement, the ownership of any Intellectual Property transferred from [Shane Chen] to the Joint Venture shall immediately and automatically revert back to [Shane Chen]. If for any reason the Intellectual Property is not reverted back to [Shane Chen], the Intellectual Property shall be encumbered by an exclusive, irrevocable, perpetual, worldwide, grant to [Shane Chen].

[4] The newly established entity was originally named Solowheel, Inc. ("Solowheel"), but its name was later changed to Future Wheel.

Id., Exh. A at 31.

Chen declares that he dissolved the joint venture in 2019 and, upon that dissolution, his "joint venture partner agreed to transfer all of my intellectual property back to me per the terms of the [Operating Agreement]." 9/6/22 Chen Decl., Dkt. 133 ¶¶ 10-11. Under an assignment agreement, dated March 2, 2019, Future Wheel assigned Chen the rights to the '250 utility patent and the '081 design patent, and under a separate assignment agreement, dated September 19, 2019, Future Wheel assigned Chen the rights to the '068 design patent. 8/15/22 Aitken Decl., Dkt. 124-5, Exh. 5 at 5-6, 11-12. On October 21, 2019, Chen assigned the rights to all three patents to Inventist. 8/15/22 Aitken Decl., Dkt. 124-4, Exh. 4. In accordance with that assignment, Inventist was substituted as the plaintiff in this action. Dkt. 82.

c. Inventist's Standing

"[T]o satisfy Article III's standing requirements, a plaintiff must show (1) it has suffered an 'injury in fact' that is (a) concrete and particularized and (b) actual or imminent, not conjectural or hypothetical; (2) the injury is fairly traceable to the challenged action of the defendant; and (3) it is likely, as opposed to merely speculative, that the injury will be redressed by a favorable decision." *Friends of the Earth, Inc. v. Laidlaw Env't Servs., Inc*., 528 U.S. 167, 180-81 (2000) (citing *Lujan v. Defenders of Wildlife*, 504 U.S. 555, 560-61 (1992)). Consistent with this standard, "one seeking to recover money damages for infringement of a [patent] . . . must have held the legal title to the patent during the time of the infringement. *Abraxis Bioscience, Inc. v. Navinta LLC*, 625 F.3d 1359, 1364 (Fed. Cir. 2010) (emphasis omitted). The "narrow exception" to this rule is that "[a] party may sue for past infringement transpiring before it acquired legal title if a written assignment expressly grants the party a right to do so." *Id.*

As noted above, Chen assigned Inventist the rights to the patents on October 21, 2019, and there is no dispute that such assignment conferred standing on Inventist to assert infringement

claims for damages accruing *after* that date. *See Zeroclick*, 2020 WL 1955735, at *5. There is also no dispute that Chen's assignment to Inventist included a provision that purportedly bestowed the right to sue for damages arising from past infringement. *See* 8/15/22 Aitken Decl., Dkt. 124-4, Exh. 4 at 2 (Chen's assignment to Inventist of "all claims for damages by reason of past and future infringement of … patents on the inventions").

Defendant contends, however, that since Chen himself only acquired from Future Wheel the rights to those patents on March 2, 2019 (with respect to '250 and '081 patents) and on September 19, 2019 (with respect to the '068 patent)—assignments that did not include the right to sue for past infringement—Chen was not capable of assigning the right to sue for infringement that occurred between the time the joint venture was created (August 3, 2017) and the time Chen assigned the patent rights to Inventist (the "Joint Venture Period"). Pl. SJ Mtn., Dkt. 127 at 6-8. Thus, according to Defendant, Inventist only has standing to sue for damages arising from infringement transpiring before Inventist entered into the Operating Agreement and after March 2, 2019 (for the '250 and '081 patents) and September 19, 2019 (for the '068 patent), but not from infringement that occurred during the Joint Venture Period.

In response, Plaintiff does not dispute that Future Wheel never assigned Chen the right to sue for past infringement but argues that Chen separately acquired that right by virtue of the Operating Agreement's reversion provision. Specifically, Plaintiff argues that, upon the dissolution of the joint venture in 2019, all of the intellectual property rights Chen had transferred to that entity, including the right to sue for past infringement of the patents, reverted back to Chen pursuant to that provision. *See* Pl. Opp'n to SJ, Dkt. 132 at 3-4.

The Court finds that the Operating Agreement's reversion provision did not, by its terms, grant Chen the right to sue for past infringement. As noted above, "[a] party may sue for past

infringement transpiring before it acquired legal title if a written assignment *expressly* grants the party a right to do so." *Abraxis Bioscience*, 625 F.3d at 1367 (emphasis added). For example, in *Messagephone*, the Federal Circuit held that an agreement to assign "[the] entire right, title, and interest" to a patent did not encompass the right to sue for past infringement due to the "absence of any explicit language" conveying that right. *Messagephone, Inc. v. SVI Sys., Inc.*, 2000 WL 1141046, at *4-5 (Fed. Cir. Aug. 11, 2000); *see also IPXpharma, LLC v. Millennium Pharms., Inc.*, No. 3:14-cv-1545, 2014 WL 6977662 (M.D. Tenn. Dec. 9, 2014) (holding that agreement to assign "all of [the] right[s], title, and interest" relating to certain patents back to the original inventors did not encompass the right to sue for past infringement because the agreement "contain[ed] no explicit reference" to that specific right); *Arachnid, Inc. v. Merit Indus., Inc.*, 939 F.2d 1574, 1579 n.7 (Fed. Cir. 1991) (the assignment of the right to sue for past infringement "must be express, and cannot be inferred from an assignment of the patent itself").

The Operating Agreement's reversion provision simply provides for the reversion of "any Intellectual Property" previously transferred from Chen to the joint venture. 9/6/22 Chen Decl., Dkt. 133, Exh. A at 31. In defining the "Intellectual Property" that Chen transferred to the joint venture, the Operating Agreement included, without any reference to past infringement, "all the Proposed Patents and the brand of Solowheel trademarks, websites, domain names and proprietary technologies." *Id.*, Ex. A at 10. Absent from the Operating Agreement—including its terms governing the initial transfer to the joint venture, and the reversion back to Chem—is any reference to the right to sue for past infringement. As such, Chen did not acquire the right to sue for past infringement of the patents by virtue of the Operating Agreement's reversion provision.[5]

[5] This conclusion is reinforced by Future Wheel's eventual assignment of the patent rights to Chen in March and September 2019. As noted above, Plaintiff concedes that the relevant agreements did

Therefore, the Court finds that Chen was not assigned the right to sue for damages arising from past infringement of the patents. As such, he did not have the capacity to—and did not—assign Inventist the right to sue for infringement transpiring during the Joint Venture Period. Accordingly, Inventist does not have standing to assert claims for infringement that occurred between August 3, 2017 and March 2, 2019 (for the '250 and '081 patents) and September 19, 2019 (for the '068 patent).[6]

2. Noninfringement of Second and Third Generation Models

Defendant moves for summary judgment on noninfringement with respect to its second and third generation products,[7] arguing that no reasonable jury could find that these models possess a "leg contact surface" as defined by the Court. Def. SJ Mtn., Dkt. 125 at 9-10. As noted above, the Court defined the term as "a surface, which protrudes from the sides of the device, and which may come into contact with a user's leg, enabling the user to hold the device in place with the lower leg." Claim Construction Order, Dkt. 95 at 6. Defendant argues that it is plain in photos of its second and third generation products that there is nothing protruding from the sides of the device.

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not assign Chen the right to sue for past infringement of the patents. *See* Pl. Opp'n to SJ, Dkt. 132 at 3; 8/15/22 Aitken Decl., Dkt. 124-5, Exh. 5 at 5, 11.

[6] Plaintiff also makes an argument that, setting aside the relevant contract provisions, "the totality of the circumstances here warrants finding that Inventist has standing to sue for past damages and infringement." Pl. Opp'n to SJ, Dkt. 132 at 4-5. Plaintiff, however, points to no authority supporting a plaintiff's standing based on the "totality of the circumstances." As discussed above, there exists only one "narrow exception" to the rule conditioning standing on the ownership of patent rights: a written assignment that "expressly grant[s] the party" the right to sue for past infringement, and the Federal Circuit has rejected "implied" assignments. *See Abraxis*, 625 F.3d at 1367; *Arachnid, Inc.*, 939 F.2d at 1579 n.7.

[7] This includes the A1, A2, S1, S2, Z6, Z8, and Z10 models. *See* Def. Opp'n to SJ, Dkt. 139 at 3; 9/6/22 Aitken Decl., Dkt. 140-3, Exh. 3.

Def. SJ Mtn., Dkt. 125 at 9-10. Plaintiff notes that infringement is a factual question and argues it should not be decided on summary judgment. Pl. Opp'n to SJ, Dkt. 132 at 6-7.

The following is an image of Plaintiff's patented design:

Solowheel Product Image





Pl. SJ Mtn., Dkt. 127 at 6. The following are images of Defendant's second and third generation models:

		
Ninebot Generation Two A1 and A2	Ninebot Generation Two Ninebot One S1 and S2	Ninebot Generation Three Z

Def. SJ Mtn., Dkt. 125 at 10.

For the sake of contrast, the Court also notes the following image of Defendant's first-generation product:

Ninebot's Product Image (Ninebot One)





Pl. SJ Mtn., Dkt. 127 at 6. Although infringement is indeed a factual question, the second and third generation models do not possess anything that could be construed by a reasonable observer as "protrude[ing] from the sides of the device."[8] The wheel cover is entirely smooth and even, and Plaintiff does not point to any part of the device the jury could conceivably find to be a leg contact surface. Furthermore, Plaintiff admits that the leg contact surface is a material part of the patented technology, and thus Plaintiff must show it is present in Defendant's product. See Pl. Opp'n to SJ, Dkt. 132 at 5-6. Accordingly, the Court grants summary judgment for Defendant on noninfringement with respect to its second and third generation products.

3. Adequacy of Lost-Profits Analysis

Plaintiff seeks two types of damages: reasonable royalties and lost profits. Plaintiff's ability to seek reasonable royalties is not in dispute. Defendant contends that Plaintiff's lost-profits analysis, however, is insufficient as a matter of law and that the opinions of Plaintiff's expert on this topic should be excluded. As this expert, Glenn Perdue, is Plaintiff's only lost-profits expert, Defendant also seeks summary judgment on lost profits.

To recover lost profits in a patent case, the plaintiff has the burden of establishing a reasonable probability that they would have made the claimed profits but for the defendant's infringement. *Crystal Semiconductors Corp. v. TriTech Microelectronics Int'l, Inc.*, 246 F.3d 1336, 1353 (Fed. Cir. 2001). The plaintiff's expert must construct a hypothetical market in which no infringement took place. *Id.* at 1355. The *Panduit* case provides that the hypothetical (or "but-for") market must evidence "sound economic proof" of four factors: "(1) demand for the patented product, (2) absence of acceptable noninfringing substitutes, (3) manufacturing and marketing

[8] Neither party argues that the footrests that protrude from the sides of the device are leg contact surfaces.

capability to exploit the demand, and (4) the [calculation of] . . . the profit [the plaintiff] would have made." *Panduit Corp. v. Stahlin Bros. Fibre Works, Inc.*, 575 F.2d 1152, 1156 (6th Cir. 1978); *BLC Leisure Prods., Inc. v. Windsurfing Int'l, Inc.*, 1 F.3d 1214, 1217 (Fed. Cir. 1993) (adopting *Panduit* factors).

Defendant challenges Perdue's reconstruction of the demand for Plaintiff's product, his calculation of lost profits, and his opinion regarding noninfringing alternatives. Defendant does not contest Plaintiff's marketing and manufacturing capacity.

In his expert report, Perdue considered the four *Panduit* factors in creating the hypothetical market on which his calculations were based. Perdue noted that demand for unicycles was high when they first entered the market, but he projected a steady decline in demand based on more recent sales figures. 8/15/22 Aitken Decl., Dkt. 126 at 106. Perdue used a combination of Plaintiff's actual sales from 2012-13 and Ninebot's 2014-20 sales to forecast the number of sales Plaintiff would have made but for Ninebot's infringement. *See id.* at 103, 105-06, 130. Perdue's final calculation appears to assume that Plaintiff would have made the same number of sales as Ninebot during the infringing period. *Id.* at 130.

Defendant first argues that Perdue's demand analysis is unreliable because he did not perform any "market study or conjoint analysis[9] to determine what part of the parties' products' values are associated with the patented features." Def. SJ Mtn., Dkt. 125 at 13. In other words, Perdue did not study whether aspects of the parties' unicycles that undisputedly do not infringe the

[9] "[A] [c]onjoint analysis is a form of statistical analysis that firms use in market research to understand how customers value different components or features of their products or services. It [is] based on the principle that any product can be broken down into a set of attributes that ultimately impact users' perceived value of an item or service." *What Is a Conjoint Analysis and How Can It Be Used?*, Harvard Bus. School Online, https://online.hbs.edu/blog/post/what-is-conjoint-analysis (last visited Jan. 10, 2023).

patent—such as speed, battery life, brand, and appearance—affect demand and might lead to one product selling better than the other. *Id.* Plaintiff argues in response that such studies are necessary only in particular circumstances that are not present in this case. Pl. Opp'n to SJ, Dkt. 132 at 10.

Defendant also criticizes Perdue's lost-profits calculation, which assumes that, in a but-for market, Plaintiff would have captured 100% of Defendant's sales, even though Plaintiff's product was significantly more expensive than Ninebot's. See Pl. Opp'n to SJ, Dkt. 132 at 11; 8/15/22 Aitkin Decl., Dkt. 124-10, Exh. 10 at PDF 106, 130. Defendant argues that this failure to account for "price elasticity" renders Perdue's testimony unreliable. Pl. Opp'n to SJ, Dkt. 132 at 11.

"[C]riticisms of an expert's method of calculation [are] a matter for the jury's consideration in weighing that evidence." *Humetrix, Inc. v. Gemplus S.C.A.*, 268 F.3d 910, 919 (9th Cir. 2001). Defects in an expert opinion generally do not render the opinion inadmissible unless it amounts to "guesswork" or "laps[es] into pure speculation." *See ATEN Int'l Co. v. Uniclass Tech.*, 2017 WL 11631178. at *3 (C.D. Cal. Apr. 24, 2017).

The alleged deficiencies in Perdue's lost-profits calculations epitomize the type of "shaky but admissible evidence" that is appropriate for "vigorous cross-examination." *Corning Optical Comms. Wireless, Ltd. v. Solid, Inc.*, 2015 WL 5655192, at *3 (N.D. Cal. Sept. 24, 2015). None of the deficiencies alleged by Defendant suggest that Perdue's calculations were the result of "guesswork" or pure speculation. Furthermore, Defendant's criticisms of Perdue's calculations are common in patent cases. Most courts that have considered improper market-share analyses or questionable assumptions underlying lost-profits calculations have found that these issues go to the weight, rather than the admissibility, of an expert's testimony. *Verinata Health, Inc. v. Ariosa Diagnostics, Inc.*, 2018 WL 288050, at *5 (N.D. Cal. Jan. 4, 2018) (expert's failure to perform a market study went to weight rather than admissibility); *Illinois Tool Works, Inc. v. MOC Prods.*

Co., Inc., 2012 WL 3561984 at *7 (S.D. Cal. Aug. 17, 2012) (expert's questionable assumption that plaintiff held 50% market share went to weight); *ATEN*, 2017 WL 11631178. at *3 (lack of a market study or conjoint analysis does not necessarily render lost-profits calculations inadmissible). Accordingly, the alleged deficiencies in Perdue's demand and lost-profits calculations are appropriately weighed by the factfinder and do not justify excluding Perdue's testimony entirely.

The Court also finds that the parties' dispute over whether and when noninfringing alternatives to Plaintiff's products were available (one of the *Panduit* factors) should be resolved by the factfinder. Plaintiff has submitted sufficient evidence that no alternatives were available during at least part of the relevant period. Pl. Opp'n to SJ, Dkt. 132 at 13 (noting that, although products Plaintiff licensed to other companies qualify as noninfringing alternatives, Plaintiff did not license its products until 2017, and most damages accrued prior to 2017). The apportionment of damages to account for the presence or absence of noninfringing alternatives is a factual question and does not go to the admissibility of Perdue's opinions. Therefore, none of the relevant factors justify excluding Perdue's lost-profits testimony, and Defendant's motion in limine and motion for summary judgment are denied as to lost profits.

4. Design Patents

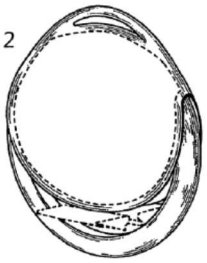
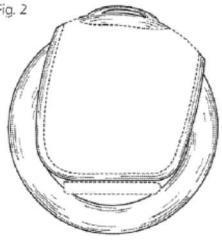
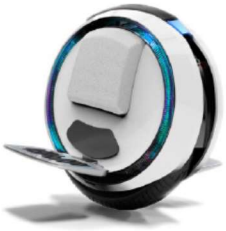
Defendant moves for summary judgment of noninfringement of the '081 and '698 design patents, arguing that no reasonable jury could find the patented designs substantially the same as any of Defendant's products. Def. SJ Mtn., Dkt. 125 at 20-27. Plaintiff counters that design similarities are properly a question for the jury. Pl. Opp'n to SJ, Dkt. 132 at 21.

"A design patent is infringed if an ordinary observer would have been deceived: 'if, in the eye of an ordinary observer, giving such attention as a purchaser usually gives, two designs are substantially the same, if the resemblance is such as to deceive such an observer, inducing him to purchase one supposing it to be the other." *Apple, Inc. v. Samsung Elecs. Co.*, 786 F.3d 983, 999

(Fed. Cir. 2015) (quoting *Gorham*, 81 U.S. (14 Wall.) at 528), *rev'd & remanded on other grounds in Samsung Elecs. Co. v. Apple Inc.*, 137 S. Ct. 429 (2016). The analysis focuses on "the deception that arises [a]s a result of the similarities in the overall design, not of similarities in ornamental features in isolation." *Crocs, Inc. v. ITC*, 598 F.3d 1294, 1303 (Fed. Cir. 2010). Design patents cover only ornamental features, in contrast to "primarily functional" features of the product, which are not considered part of the design. *Ethicon Endo-Surgery, Inc. v. Covidien, Inc.*, 796 F.3d 1312, 1328 (Fed. Cir. 2015).

Despite some squabbling over technical details,[10] the parties generally agree that the relevant ornamental features of their products are the wheel cover and handle. *See* Def. SJ Mtn., Dkt. 125 at 21; Pl. Opp'n to SJ, Dkt. 132 at 18. The question is whether Defendant's wheel covers and handles are so similar to Plaintiff's that an ordinary observer would mistake one for the other. The following is a comparison of Plaintiff's design with a selection of Defendant's products compiled by Plaintiff:

[10] The parties' arguments as to which features of their products are ornamental present a distinction without a difference. Defendant claims that "handles, wheels, wheel covers and foot supports are functional." Def. SJ Mtn., Dkt. 125 at 21. In Defendant's view, this leaves "the particular shape of the wheel cover and design feature, if any, of an otherwise functional handle" as the only ornamental features. *Id.* Plaintiff seems to dislike Defendant's characterization of what is encompassed by the "wheel cover" but does not dispute that the wheel cover and handle are the only ornamental features of the design. Pl. Opp'n to SJ, Dkt. 132 at 18.

Representative Design Patent Drawings	Ninebot's Accused Devices
Fig. 2 	 (Ninebot A1)
Fig. 2 	 (Ninebot One)
	 (Ninebot One S1)
	 (Ninebot One Z)
	 (Ninebot One S1)

Id. at 20.

The Court finds that Defendant's design is not so manifestly different from Plaintiff's that no reasonably jury could find the former to be infringing. This factual question is well within the competence of a jury. Many other products possess handles and wheel covers, and the ordinary observers that make up a jury would very likely have seen many different designs and be able to assess their relative similarity. Accordingly, summary judgment on noninfringement of the design patents is not appropriate.

5. Failure to Join Inventor

Defendant argues that the '250 patent is invalid because Plaintiff failed to name Daniel Wood as a co-inventor. Def. SJ Mtn., Dkt. 125 at 27. Defendant argues that "[a] patent is invalid unless it lists the first and true inventor or inventors of the claimed invention." *Id.* at 27-28 (citing *Stark v. Advanced Magnetics*, 119 F.3d 1551, 1553, 1556 (Fed. Cir. 1997)). Defendant cites statements by Chen indicating that Wood was a co-inventor. *Id.* at 28.

The Court has already found that Defendant's inventorship invalidity defense is untimely because it was not alleged in Defendant's invalidity contentions. Additionally, Plaintiff notes that "[t]o invalidate a patent based on incorrect inventorship, it must be shown not only that the inventorship was incorrect, but that correction is unavailable under [35 U.S.C. §] 256." *C.R. Bard, Inc. v. M3 Sys., Inc.*, 157 F.3d 1340, 1352-53 (Fed. Cir. 1998). Section 256 permits inventorship corrections at any time unless there is evidence of deceptive intent in not originally naming the co-inventor. 35 U.S.C. § 256 ("The error of omitting inventors or naming persons who are not inventors shall not invalidate the patent in which such error occurred if it can be corrected as provided in this section . . . ."). Defendant does not respond to this argument in its reply brief, and the Court finds that because inventorship can be corrected under § 256, invalidating the patent is

not an available remedy.[11] Therefore, even if the Court were to consider the substance of Defendant's untimely inventorship defense, it would not serve to rebut Plaintiff's infringement claims or challenge the validity of the patent. Accordingly, the Court denies summary judgment on the '250 patent based on a failure to join a co-inventor.

CONCLUSION

For the foregoing reasons, Plaintiff's motion for summary judgment is GRANTED. Defendant's motion for summary judgment is GRANTED IN PART and DENIED IN PART as follows. The motion is:

a) GRANTED as to Plaintiff's standing to sue for damages accruing between August 3, 2017 and March 2, 2019 (for the '250 and '081 patents) and September 19, 2019 (for the '068 patent);

b) GRANTED as to Defendant's second and third generation products' noninfringement of the '250 patent;

c) DENIED as to lost-profits damages;

d) DENIED as to noninfringement of the design patents ('081 and '068).

Defendant's motion in limine is DENIED IN PART as to the lost-profits testimony of Glenn Perdue.

DATED this 18th day of January, 2023.

Barbara J. Rothstein

BARBARA J. ROTHSTEIN
UNITED STATES DISTRICT JUDGE

[11] Furthermore, correction of the patent can only be done through the patent office and is not relief the Court can unilaterally grant.