

UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE PATENT TRIAL AND APPEAL BOARD

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SHARKNINJA OPERATING LLC,  
SHARKNINJA MANAGEMENT LLC,  
and SHARKNINJA SALES COMPANY,  
Petitioner,

v.

IROBOT CORPORATION,  
Patent Owner.

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IPR2021-00544  
Patent 9,884,423 B2

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Before TERRENCE W. McMILLIN, AMANDA F. WIEKER, and  
JASON W. MELVIN, *Administrative Patent Judges*.

McMILLIN, *Administrative Patent Judge*.

DECISION  
Denying Institution of *Inter Partes* Review  
35 U.S.C. § 314

## I. INTRODUCTION

SharkNinja Operating LLC, SharkNinja Management LLC, and SharkNinja Sales Company (“Petitioner”)<sup>1</sup> filed a Petition to institute an *inter partes* review of claims 1–4, 6–10, 12–15, 18–23, 25, and 26 (the “challenged claims”) of U.S. Patent 9,884,423 B2 (Ex. 1001, the “‘423 patent”) pursuant to 35 U.S.C. § 311 *et seq.* Paper 1 (“Petition” or “Pet.”). iRobot Corporation (“Patent Owner”)<sup>2</sup> filed a Preliminary Response. Paper 6 (“Preliminary Response” or “Prelim. Resp.”). The Preliminary Response addresses only the issue of discretion under 35 U.S.C. § 314(a). After considering the Petition, the Preliminary Response, and the evidence of record, we exercise our discretion under 35 U.S.C. § 314(a) to deny institution of *inter partes* review.

### A. *Related Proceedings*

The parties identify the following related proceedings:

*In the Matter of Certain Robotic Floor Cleaning Devices and Components Thereof*, Inv. No. 337-TA-1252<sup>3</sup> (U.S. International Trade Commission) (the “ITC investigation”); and

*iRobot Corp. v. SharkNinja Operating LLC*, No. 1:21-cv-10155 (D. Mass.) (the “District Court litigation”). Pet. 80; Paper 4, 2.

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<sup>1</sup> Petitioner identifies SharkNinja Operating LLC, SharkNinja Management LLC, and SharkNinja Sales Company as the real parties-in-interest. Pet. 80.

<sup>2</sup> Patent Owner identifies iRobot Corporation as the real party-in-interest. Paper 4, 2.

<sup>3</sup> Petitioner refers to this as 337-TA-3530, but the ITC website indicates 3530 is the docket number, not the investigation number. *See* <https://pubapps2.usitc.gov/337external/3979>.

*B. The '423 Patent*

The '423 patent is titled “Autonomous Robot Auto-Docking and Energy Management Systems and Methods.” Ex. 1001, code (54). The patent relates “to auto-docking and energy management systems for autonomous robots.” *Id.* at 1:35–37. The patent describes “a need for a robot and base station that can ensure proper mating regardless of location of the base station. Moreover, a system that can prevent inadvertent dislocation of the base station by eliminating collisions between the station and robot is desirable.” *Id.* at 2:30–34.

The '423 patent describes “an autonomous system including a base station, that includes charging terminals for contacting external terminals of robotic device, and a first signal emitter and a second signal emitter,” where in some embodiments, “the first signal emitter transmit[s] a base station avoidance signal and the second signal emitter transmit[s] a base station homing signal.” *Id.* at 3:35–42. The patent also discloses “a robotic device for performing a predetermined task, the robotic device having at least one energy storage unit with an external terminal for contacting the charging terminal, and at least one signal detector.” *Id.* at 3:47–51.

Robotic device 40 “uses a variety of behavioral modes to vacuum effectively a working area,” where a “microprocessor is operative to execute a prioritized arbitration scheme to identify and implement one or more dominant behavioral modes for any given scenario, based upon inputs from the sensor system,” and “also operative to coordinate avoidance, homing, and docking maneuvers with the base station 10.” *Id.* at 8:35–43.

Figure 5, annotated by Petitioner (Pet. 3) and reproduced below, shows an isometric view of a base station and robotic device.

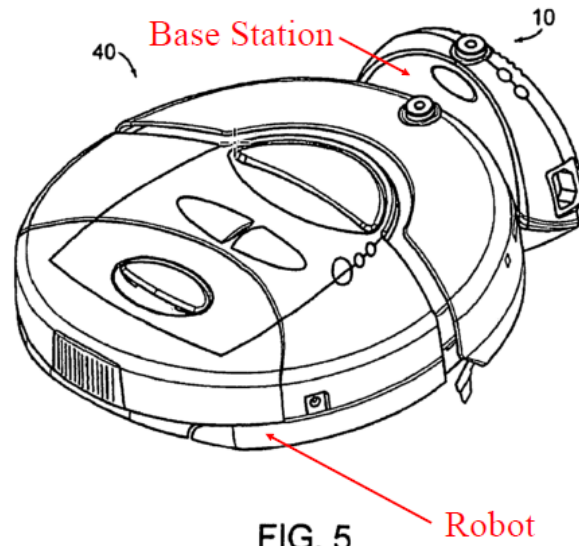


Figure 5 depicts robotic device 40 completely docked with base station 10. *Id.* at 15:29–30.

### C. Challenged Claims

Petitioner challenges claims 1–4, 6–10, 12–15, 18–23, 25, and 26 of the '423 patent. Pet. 1. Claim 1, the sole independent claim, is reproduced below.

1. A method of docking a robotic cleaning device with a base station that includes a plurality of signal emitters including a right signal emitter and a left signal emitter, the method comprising:

- directing the robotic cleaning device about a room at a first velocity;
- detecting, by a sensor mounted on the robotic cleaning device, a right signal transmitted by the right signal emitter of the base station and a left signal transmitted by the left signal emitter of the base station;
- controlling forward movement of the robotic cleaning device toward the base station at a second velocity less than the first velocity while orienting the robotic cleaning device in relation to the right signal and the left signal;
- detecting contact with charging terminals on the base station;

stopping the forward movement of the robotic cleaning device in response to detecting contact with the charging terminals on the base station; and  
charging a battery of the robotic cleaning device.

Ex. 1001, 19:32–52.

*D. The Asserted Grounds*

Petitioner challenges claims 1–4, 6–10, 12–15, 18–23, 25, and 26 of the '423 patent based on the grounds set forth in the table below.

<b>Claim(s) Challenged</b>	<b>35 U.S.C. §</b>	<b>References</b>
1–4, 6–10, 12	103	Jeon <sup>4</sup> , Everett <sup>5</sup>
1–4, 6–10, 12	103	Jeon, Everett, Abramson <sup>6</sup>
9	103	Jeon, Everett, Jones <sup>7</sup>
9	103	Jeon, Everett, Abramson, Jones
13–15, 18–23, 25, 26	103	Kim <sup>8</sup> , Everett

Petitioner also relies on the Declaration of Maxim Likhachev, Ph.D. (Ex. 1012, “Likhachev Decl.”), which provides evidence in support of the contentions in the Petition. Patent Owner has not submitted a declaration or other testimonial evidence of an expert, and has not argued that any of the cited references do not qualify as prior art. *See generally* Prelim. Resp.

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<sup>4</sup> US 2004/0178767 A1, published Sept. 16, 2004 (Ex. 1003). Petitioner contends this reference is prior art under 35 U.S.C. § 102(e). Pet. 8.

<sup>5</sup> H. R. Everett, “Sensors for Mobile Robots: Theory and Application”, ISBN 1-56881-048-2, 1995 (Ex. 1004). Petitioner contends this reference is prior art under 35 U.S.C. § 102(b). Pet. 10.

<sup>6</sup> US 2005/0010330 A1, published Jan. 13, 2005 (Ex. 1006). Petitioner contends this reference is prior art under 35 U.S.C. § 102(e). Pet. 11.

<sup>7</sup> Joseph L. Jones, et al., “Mobile Robots: Inspiration to Implementation”, ISBN 1-56881-097-0, 1998 (Ex. 1007). Petitioner contends this reference is prior art under 35 U.S.C. § 102(b). Pet. 46.

<sup>8</sup> US 5,440,216, issued Aug. 8, 1995 (Ex. 1009). Petitioner contends this reference is prior art under 35 U.S.C. § 102(b). Pet. 49.

## II. ANALYSIS

### A. Patent Owner's Argument Under 35 U.S.C. § 314(a) Based on Parallel Proceeding

Institution of *inter partes* review is discretionary. *See Harmonic Inc. v. Avid Tech., Inc.*, 815 F.3d 1356, 1367 (Fed. Cir. 2016) (“[T]he PTO is permitted, but never compelled, to institute an IPR proceeding.”); 35 U.S.C. § 314(a) (2018). The Board has held that the advanced state of a parallel district court action is a factor that may weigh in favor of denying a petition under § 314(a). *See NHK Spring Co. v. Intri-Plex Techs., Inc.*, IPR2018-00752, Paper 8 at 20 (PTAB Sept. 12, 2018) (precedential); Patent Trial and Appeal Board, Consolidated Trial Practice Guide, 58 & n.2 (Nov. 2019) (“Trial Practice Guide”), available at <https://www.uspto.gov/sites/default/files/documents/tpgnov.pdf>. We consider the following factors to assess “whether efficiency, fairness, and the merits support the exercise of authority to deny institution in view of an earlier trial date in the parallel proceeding”:

1. whether the court granted a stay or evidence exists that one may be granted if a proceeding is instituted;
2. proximity of the court's trial date to the Board's projected statutory deadline for a final written decision;
3. investment in the parallel proceeding by the court and the parties;
4. overlap between issues raised in the petition and in the parallel proceeding;
5. whether the petitioner and the defendant in the parallel proceeding are the same party; and
6. other circumstances that impact the Board's exercise of discretion, including the merits.

*Apple Inc. v. Fintiv, Inc.*, IPR2020-00019, Paper 11 at 5–6 (PTAB Mar. 20, 2020) (precedential) (“*Fintiv*”). In evaluating these factors, we “take[] a holistic view of whether efficiency and integrity of the system are best

served by denying or instituting review.” *Id.* at 6. The *Fintiv* factors have been applied where there was a parallel proceeding before the ITC. *See, e.g., Apple Inc. v. Neodron Ltd.*, IPR2020-00778, Paper 10 at 18 (Sept. 14, 2020); *see also Fintiv*, 8 (stating that “even though the Office and the district court would not be bound by the ITC’s decision, an earlier ITC trial date may favor exercising authority to deny institution . . . if the ITC is going to decide the same or substantially similar issues to those presented in the petition”).

Here, there are two parallel proceedings, the District Court litigation and the ITC investigation. *See* Section I.A. The District Court litigation was filed on January 28, 2021. Pet. 80. The ITC investigation also was filed on January 28, 2021. Pet. 80. In the ITC investigation, the evidentiary hearing is set to begin on January 5, 2022, and the final initial determination is due on April 29, 2022. Ex. 2004, 5. The *Markman* hearing, if requested, is scheduled for the week of June 28, 2021. *Id.* at 4. Indeed, the Procedural Schedule jointly proposed by the parties and adopted by the ITC sets forth a four-page list of activities that have been ordered to be completed within a year, including a considerable number of activities that should have already been completed. *See id.*

Patent Owner contends we should exercise our discretion to deny the Petition under § 314(a), because “[i]dential invalidity issues are actively being litigated in a parallel ITC investigation involving the parties, which will be resolved before the Board’s final written decision.” Prelim. Resp. 1. Petitioner contends, “the most relevant *Fintiv* factors demonstrate that the Board should not deny institution under 35 U.S.C. § 314(a),” and that

“Factors 4 (lack of overlap) and 6 (strong merits) outweigh other factors here.” Pet. 4.

1. *Whether the court granted a stay or evidence exists that one may be granted if a proceeding is instituted*

*Fintiv* indicated that, in previous Board decisions, the existence of a stay pending Board resolution of an *inter partes* review has weighed strongly against denial, while a denial of such a stay request sometimes weighs in favor of denial. *Fintiv*, Paper 11 at 6–8.

Patent Owner argues that the “ITC investigation is not stayed and is unlikely to be stayed,” and that, on “April 20, 2021, the ALJ issued an order denying SharkNinja’s motion to stay.” Prelim. Resp. 2 (citing Ex. 2003). We weigh this factor in favor of exercising our discretion to deny institution.

2. *Proximity of the court’s trial date to the Board’s projected statutory deadline for a final written decision*

The proximity factor in *Fintiv*, on its face, asks us to evaluate our discretion in light of a trial date that has been set in a parallel litigation. *See Fintiv*, Paper 11 at 3, 5 (“*NHK* applies to the situation where the district court has set a trial date to occur earlier than the Board’s deadline to issue a final written decision in an instituted proceeding.”; “When the patent owner raises an argument for discretionary denial under *NHK* due to an earlier trial date, the Board’s decisions have balanced the following factors . . . .”) (citing *NHK*, Paper 8 (footnote omitted)). As noted above in the discussion of a stay, *Fintiv* has expressed concern regarding “inefficiency and duplication of efforts.” *Id.* at 6. In its analysis of the proximity factor, *Fintiv* echoes that concern in its guidance that “[i]f the court’s trial date is at or around the same time as the projected statutory deadline or even significantly after the projected statutory deadline, the decision whether to



institute will likely implicate other factors discussed herein, such as the resources that have been invested in the parallel proceeding.” *Id.* at 9. Similarly, in *NHK*, the Board expressed the concern that a trial before the deadline for a final written decision addressing the same prior art and arguments would have undermined the Board’s objectives of providing an effective and efficient alternative to district court litigation. *NHK*, Paper 8 at 20 (citing *Gen. Plastic*, Paper 19 at 16–17). In specific regard to consideration of an earlier ITC trial or evidentiary hearing date, *Fintiv* provides, “an earlier ITC trial date may favor exercising authority to deny institution under *NHK* if the ITC is going to decide the same or substantially similar issues to those presented in the petition.” *Fintiv*, Paper 11 at 8.

The evidentiary hearing in the ITC investigation is scheduled to begin January 5, 2022, and the final determination is due April 29, 2022. Ex. 2004, 5. The final written decision in this proceeding would be due one year after this decision on institution (June, 2022). Because the evidentiary hearing and final determination in the ITC are scheduled to be completed before the due date for the final written decision, this factor weighs in favor of exercising our discretion to deny institution.

3. *Investment in the parallel proceeding by the court and the parties*

Under this factor, “[t]he Board . . . consider[s] the amount and type of work already completed in the parallel litigation by the court and the parties at the time of the institution decision.” *Fintiv*, Paper 11 at 9. “This investment factor is related to the trial date factor, in that more work completed by the parties and court in the parallel proceeding tends to support the arguments that the parallel proceeding is more advanced, a stay may be less likely, and instituting would lead to duplicative costs.” *Id.* at 10.

It appears that there has been a substantial investment in the ITC investigation by the ITC and the parties. *See* Ex. 2004 (Adopted Procedural Schedule). The Preliminary Response states, “[t]o date, SharkNinja has provided 6,815 pages of invalidity claim charts and has produced 12,757 documents (237,911 pages). Similarly, iRobot has served 1,872 pages of claim charts (infringement and domestic injury) and produced 451,721 documents (1,282,638 pages).” Prelim. Resp. 7. Also:

All fact discovery concerning SharkNinja’s patentability challenges will be completed at least a month before the institution decision. Ex. 2004. The ITC’s *Markman* hearing is expected to be held more than two months before the institution decision, *id.*, and a *Markman* order prior to the institution deadline is likely so that the parties can prepare their opening expert reports in the ITC, which are due more than two weeks before institution, *id.*

*Id.* Based on this record, we agree with Patent Owner that “by the time of the institution, the parties will have invested vast resources in the ITC investigation.” *Id.*

Because of the significant investment in the ITC investigation, this factor weighs in favor of exercising our discretion to deny institution.

4. *Overlap between issues raised in the petition and in the parallel proceeding*

“[I]f the petition includes the same or substantially the same claims, grounds, arguments, and evidence as presented in the parallel proceeding, this fact has favored denial.” *Fintiv*, Paper 11 at 12. “Conversely, if the petition includes materially different grounds, arguments, and/or evidence than those presented in the district court, this fact has tended to weigh against exercising discretion to deny institution under *NHK*.” *Id.* at 12–13.

With regard to overlap with the ITC investigation, in the Petition, Petitioner argues, “if this IPR is instituted, [Petitioner] will not pursue the grounds presented in this Petition in the ITC or district court. Thus, there will not be any overlap between this Petition and potential invalidity grounds in the co-pending cases, weighing in favor of institution.” Pet. 4–5.

Petitioner also contends “Petitioner also challenges claims 10 and 19, not in the litigations, creating additional non-overlapping issues.” Pet. 5 n.1.

Patent Owner argues, “[i]dential invalidity issues are being actively litigated in a parallel ITC investigation involving the parties, which will be resolved before the Board’s final written decision, and which ITC has already refused to stay” and “the prior art grounds asserted in SharkNinja’s IPR petition are the *only* theories of invalidity identified in its response to the ITC complaint.” Prelim. Resp. 1, 8. Patent Owner also argues “SharkNinja does not argue that claims 10 and 19 differ significantly from those at issue in the ITC. Petition, 5. Indeed, SharkNinja devotes less than half a page to claim 10 and its only discussion of claim 19 is that it is ‘substantially identical to claim 25.’” *Id.* at 10.

There is overlap between issues raised in the Petition and in the ITC investigation. *Compare* Pet. 2 (Grounds) (relying on Jeon (Ex. 1003), Everett (Ex. 1004), Abramson (Ex. 1006), Jones (Ex. 1007), and Kim (Ex. 1009)), *with* Ex. 2007 App. A4, 2, 11 (Petitioner’s Initial Invalidity Contentions from the ITC investigation) (relying on Jeon, Everett, Abramson, Jones, and Kim). Moreover, Petitioner expressly incorporates its invalidity contentions from this proceeding as its only specifically pled invalidity affirmative defense in its response to the Complaint in the ITC investigation. *See* Ex. 2005, 45–46 (“[Petitioner] also incorporates all the

reasons for invalidity as to the asserted claims of the asserted patents due to the prior art cited in the IPR petition referenced in paragraph 73 of the Complaint and additional post-grant review petitions seeking to invalidate certain claims of the '423 patent, filed on February 24, 2021, (assigned AIA Review Number IPR2021-00544).”). Therefore, it does appear that patentability issues identical to those presented in this proceeding are currently being litigated in the ITC investigation as argued by Patent Owner.

Petitioner stipulates that “if this IPR is instituted, it will not pursue the grounds presented in this Petition in the ITC or district court.” Pet. 4. Petitioner’s stipulation “mitigates to some degree the concerns of duplicative efforts between the district court and the Board, as well as concerns of potentially conflicting decisions.” *See Sand Revolution II, LLC v. Continental Intermodal Group – Trucking LLC*, IPR2019-01393, Paper 24 at 11–12 (PTAB June 16, 2020) (informative). We note, however, that a broader stipulation than that provided by Petitioner “might better address concerns regarding duplicative efforts and potentially conflicting decisions in a much more substantial way.” *Id.* at 12 n.5.

We determine this factor weighs marginally in favor of not exercising discretion to deny institution.

5. *Whether the petitioner and the defendant in the parallel proceeding are the same party*

The parties in the District Court litigation and the ITC investigation and this proceeding are the same. *See* Prelim. Resp. 15 (“There is no dispute that SharkNinja is both the petitioner and the respondent in the ITC investigation.”). We determine this factor weighs in favor of exercising our discretion to deny institution. *See Fintiv*, Paper 11 at 6.

6. *Other circumstances that impact the Board's exercise of discretion, including the merits.*

As to the sixth factor (*see Fintiv*, Paper 11 at 14–15 (noting that the merits of a petitioner's ground may be considered)), Petitioner contends it “favors institution because the merits of this Petition are strong.” Pet. 5. However, Petitioner does not provide any argument or explanation as to how or why its Petition is particularly strong or meritorious, apart from its merits contentions generally. *See id.*

Patent Owner argues “the merits of SharkNinja's petition are weak and that this factor therefore also supports discretionary denial.” Prelim. Resp. 15. Patent Owner supports this argument with this detailed explanation:

For example, the Petition's Jeon/Everett combination fails to render obvious the “forward movement” features of claim 1 because: (1) Jeon does not disclose controlling forward movement of the robotic cleaning device while orienting the robotic cleaning device relative to the right and left signals *and* stopping the *same* forward movement of the robotic cleaning device “in response to detecting contact with the charging terminals of the base station,” as required by claim 1; and (2) the Petition fails to identify a credible motivation to modify Jeon to include such a feature. As another example, the Petition's Jeon/Everett/Abramson combination also fails to render obvious the “forward movement” features of claim 1 because: (1) Abramson does not disclose controlling forward movement of the robotic cleaning device “while orienting the robotic cleaning device in relation to the right signal and the left signal” and stopping the same “forward movement” of the robotic cleaning device “in response to detecting contact with the charging terminals of the base station,” as required by claim 1; (2) the Jeon/Everett/Abramson combination does not satisfy these features because Jeon's controlling forward movement relative to the left/right signals and Abramson's stopping movement in response to detecting contact are directed to two opposite

directions of movement; and (3) the Petition fails to identify a credible motivation to modify Jeon/Everett based on Abramson to include such features.

Prelim. Resp. 15–16.

It is, of course, not at all unusual for both parties to argue (and believe) that the merits of their respective, but contrary, positions on the merits are strong and the opposing party’s positions are weak. Our preliminary analysis of the merits does not persuade us that either party’s position on the merits is particularly strong or weak. We determine that this factor is neutral.

*B. Holistic Assessment of Factors and Conclusion*

We consider the above factors and take “a holistic view of whether efficiency and integrity of the system are best served by denying or instituting review.” *Fintiv*, Paper 11 at 6. Applying a holistic view, we determine that the efficiency and integrity of the system are best served by denying institution. Thus, after considering the factors outlined in the precedential order in *Fintiv*, we exercise our discretion to deny institution under § 314(a).

III. CONCLUSION

We exercise discretion under 35 U.S.C. § 314(a) to deny institution of *inter partes* review.

IV. ORDER

In consideration of the foregoing, it is hereby:

ORDERED that the Petition is *denied* as to all challenged claims, and no trial is instituted.

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