UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

TESLA, INC.,
Petitioner

v.

AUTONOMOUS DEVICES, LLC,
Patent Owner

Case: IPR2023-01055
U.S. Patent No. 11,238,344

PATENT OWNER'S PRELIMINARY RESPONSE

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Exhibit List

Exhibit	Description
2001	Biography of Blair M. Jacobs (previously submitted)
2002	Declaration of Blair M. Jacobs (previously submitted)
2003	Supplemental Declaration of Blair M. Jacobs (previously submitted)
2004	Disclaimer of Claims 1-2 and 19-20
2005	District Court Docket
2006	District Court Scheduling Order

I. INTRODUCTION

Autonomous Devices, LLC ("Patent Owner" or "Autonomous Devices") submits this Preliminary Response in accordance with 35 U.S.C. § 313 and 37 C.F.R. § 42.107, responding to the Petition for *Inter Partes* Review ("Petition") of U.S. Patent No. 11,238,344 ("the '344 Patent") filed by Tesla, Inc. ("Petitioner" or "Tesla").

The Petition challenges claims 1-20 of the '344 patent with three grounds that rely on U.S. Patent No. 9,604,359 ("Grotmol") and/or U.S. Patent No. 8,639,644 ("Hickman"). Patent Owner has disclaimed claims 1-2 and 19-20. Ex. 2004. No IPR can be instituted based on these disclaimed claims. 37 C.F.R. § 42.107(e). They are "treated as if they never existed." *Raytheon Techs. Corp. v. Gen. Elec. Co.*, 993 F.3d 1374, 1379 n.4 (Fed. Cir. 2021). The Petition's arguments as to remaining claims 3-18 ("Challenged Claims") are minimal and lack support. The Board has previously denied institution when, like here, the patentee disclaimed certain claims and the petitioner did not establish a reasonable likelihood of prevailing on the remaining claims. *See Novartis Gene Therapies, Inc. et al v. Genzyme Corp.*, IPR2023-00608, Paper 20 (PTAB Aug. 30, 2023); *Gen. Electric Co. v. United Techs. Corp.*, IPR2017-00491, Paper 9 (PTAB July 6, 2017).

The Board should decline institution due to deficiencies in the Petition's analysis of the prior art relied upon in the grounds. Additionally, the Board should exercise its discretion and deny institution under 35 U.S.C. § 314(a).

II. THE '344 PATENT

The '344 patent, titled "Artificially intelligent systems, devices, and methods for learning and/or using a device's circumstances for autonomous device operation," discloses systems and methods for learning and using a device's circumstances for autonomous device operation. Ex. 1001, Abstract, 1:39-41. The '344 patent discloses systems and methods for autonomous driving by learning and using a device's circumstances including detecting objects with various properties along with correlated instruction sets for operating the device in various circumstances. *Id.*, 57:58-66. The circumstance and instruction set information is stored in a knowledgebase and used to operate the device autonomously. *Id.*

Prior to the innovations described in the '344 patent, "[c]ommonly employed device or system operating techniques lack[ed] a way to learn [the] operation of a device or system and enable autonomous operation of a device or system." *Id.*, 1:44-47. The '344 patent solved this problem by utilizing a sophisticated system for learning the scenarios encountered by a device and distilling those scenarios into a set of circumstances (which may include one or more objects) and corresponding instructions that can be efficiently performed autonomously. *Id.*, 57:58-66.

The ’344 patent is directed to systems, methods, and computer readable media that store a knowledgebase that correlates device operating instruction sets with objects encountered by a device, obtain new object representations using device sensors, match the new objects with objects in the knowledgebase, and cause a device that detected the new objects to autonomously execute an instruction set correlated to the matched objects. *Id.*, 1:51-2:21. This autonomously performed operation is based on a correlation learned in a learning process that includes operating a device at least partially by a user. *Id.*

Referring to Figure 38 (shown below) and the specification’s description of Figure 38, for example, vehicle 98a includes sensors 92, such as a camera 92a, that capture the vehicle’s 98a’s surrounding. *Id.*, 162:48-164:5, Fig. 38, claim 1. The vehicle’s computer(s) process the output from the sensors 92 to form a circumstance representation that includes object representations 625 representing objects 615aa-ad (people, boulders, materials, vehicles, etc.) in the vehicle’s surrounding. *Id.* If a vehicle’s computer(s) detect a match with a previously learned circumstance representation 525, the vehicle 98a performs autonomous operation using previously learned instructions 526 correlated with the previously learned circumstance representations. *Id.*

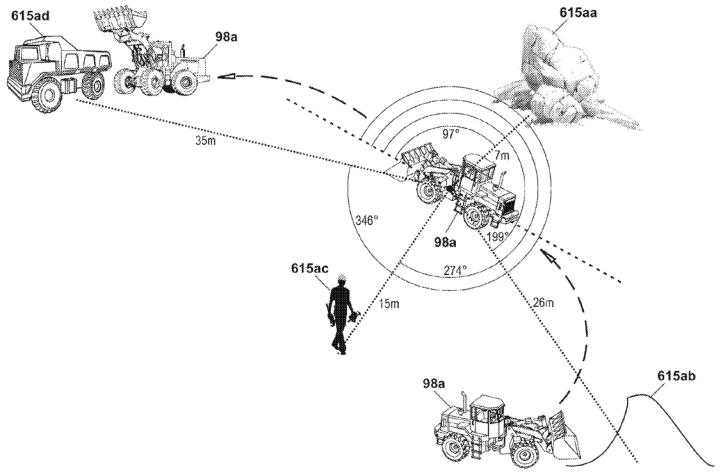


FIG. 38

Ex. 1001, Fig. 38.

The ’344 patent describes and claims methods and systems implementing its innovative techniques for autonomous operation. For example, one such system is claimed in claim 1. Claim 1 is directed to a system that uses a knowledgebase that stores circumstance representations to implement autonomous operation. Several other dependent claims provide additional details regarding autonomous operation that are not disclosed in the references cited in the Petition. For example, claim 3 provides novel data structures involving circumstance representations and object representations. This claim and the other Challenged Claims contain limitations that the Petition has not established are disclosed, suggested or rendered obvious by the cited references.

III. PERSON OF ORDINARY SKILL IN THE ART

For purposes of this stage of the proceeding only, Patent Owner adopts Petitioner's definition of a person of ordinary skill in the art (POSA). Petition, 4.

IV. ALLEGED PRIOR ART

The Petition relies on two references for its unpatentability grounds, and those references are summarized below.

A. GROTMOL (EX. 1004)

Grotmol discloses a primitive method for training and operating a robotic device to follow a simple trajectory based on a simple sequence (i.e. ordered buffer) of images. Exhibit 1004, Abstract. If any circumstance occurs for which the simple trajectory is not trained (i.e. different objects, etc.) the robot in Grotmol would not know what to do or would collide with an obstacle. The robotic device "may utilize a camera" to store a "sequence of images of a visual scene seen when following a trajectory during training in an ordered buffer." *Id.* During training, "[m]otor commands issued by a trainer corresponding to time instances when the images are acquired may be stored." *Id.*, 39:17-19. During autonomous operation, the robotic device may be configured to compare an acquired image "with one or more images from the training buffer in order to determine the most likely match." *Id.*, Abstract. After an acquired image is matched to an image stored in the training buffer, the best

match may be used "to predict motor command for controlling operation of a robot." *Id.*, 27:57-58.

Figure 1 from Grotmol, shown below, discloses that robot 160 includes sensor 166. *Id.*, 8:57-61. Sensor 166 provides "information associated with objects within the field-of-view 168." *Id.*, 8:64-68. Grotmol discloses that its device also includes a memory that stores "training sets," which may include "an instance of the video frame, an instance of the binary signal, and an instance of a motor control indication configured to cause the robot to execute an action." *Id.*, 3:35-39. Grotmol never discloses specific data structures or the manner in which information is stored and processed in robot 160.

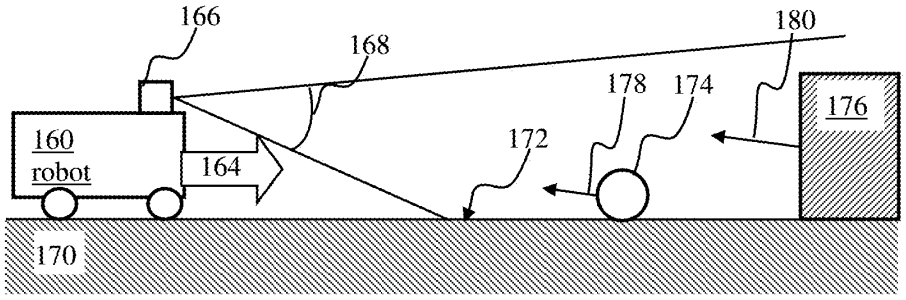


FIG. 1

Ex. 1004, Fig. 1.

B. HICKMAN (EX. 1005)

Hickman relates to "shared robot knowledge bases for use with cloud computing systems." Ex. 1005, Abstract. "[T]he cloud computing system" in

Hickman "collects data from a robot about an object the robot has encountered in its environment, and stores the received data in the shared robot knowledge base." *Id.* Hickman teaches a method whereby "information in the shared robot knowledge base is updated based on robot experiences so that any particular robot may benefit from prior experiences of other robots." *Id.*

Hickman provides a basic method for storing and sharing object information. As shown below in Figure 4 from Hickman, robot 404 may obtain object information via one or more sensors. *Id* at 25:14-19. That information is transmitted to cloud computing system 401, where it is stored and can be used by second robot 413. *Id.,* 25:24-27:26. Hickman fails to disclose how this object information is stored, processed, and utilized to autonomously operate a device.

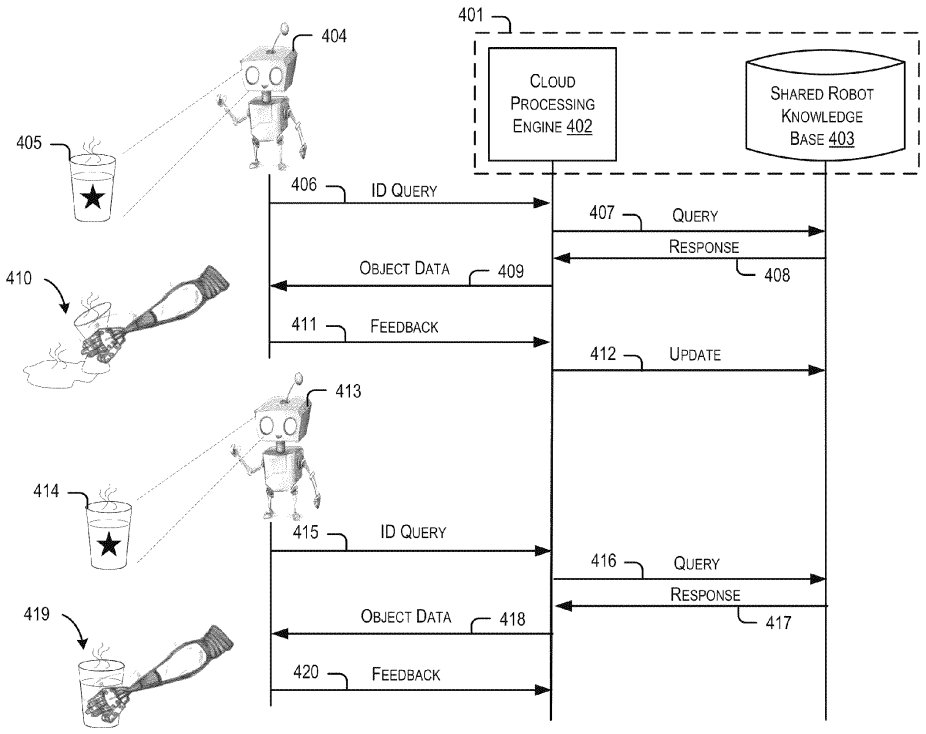


FIGURE 4

Ex. 1005, Fig. 4.

V. CLAIM CONSTRUCTION

The claims in an *inter partes* grant review are construed using the same standard that applies in district court proceedings, as set forth in *Phillips v. AWH Corp.*, 415 F.3d 1303 (Fed. Cir. 2005) (en banc). 37 C.F.R. § 100(b) (2019). Claim terms are afforded "their ordinary and customary meaning," which is "the meaning that the term would have to a person of ordinary skill in the art in question at the time of the invention." *Phillips*, 415 F.3d at 1312–13. "In determining the meaning of the disputed claim limitation, we look principally to the intrinsic evidence of

record, examining the claim language itself, the written description, and the prosecution history, if in evidence." *DePuy Spine, Inc. v. Medtronic Sofamor Danek, Inc.*, 469 F.3d 1005, 1014 (Fed. Cir. 2006) (citing *Phillips*, 415 F.3d at 1312-17). The Board, however, only construes the claims when necessary to resolve the underlying controversy. *Toyota Motor Corp. v. Cellport Systems, Inc.*, IPR2015-00633, Paper No. 11 at 16 (Aug. 14, 2015) (citing *Vivid Techs., Inc. v. Am. Sci. & Eng'g, Inc.*, 200 F.3d 795, 803 (Fed. Cir. 1999)).

Patent Owner proposes a construction for one term ("object representation") that appears in claims 3-18, and that term is discussed below in Section V.A. Additionally, claim terms for which Petitioner proposed a construction (Petition, 4-5) do not need construction because the claims reciting those terms have been disclaimed, as discussed above in Section I and below in Section V.B.

A. "object representation" (Claims 3-18)

Claims 3-18 recite "object representation" at several instances in describing the data structures that are used to store and process information in the claimed invention. Claim 3 recites in part:

> wherein the first circumstance representation includes a first one or more ***object representations***, and wherein the second circumstance representation includes a second one or more ***object representations***.

Ex. 1001, Claim 3.

In the context of the '344 patent, including in light of the claims, specification, and prosecution history, an "object representation" should be construed as a "data structure that includes an object property generated by object processing." This construction is supported by the claims, specification, drawings, and intrinsic record as a whole. Figure 4B of the '344 patent makes clear that an object representation is a data structure that includes an object property generated by object processing:

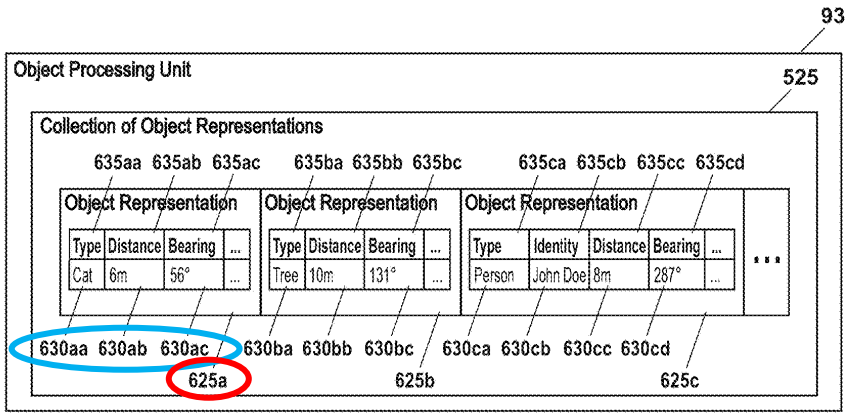


FIG. 4B

Ex. 1001, Figure 4B (annotated to show object representation 625a in red, and object properties 630aa-ac in blue). As shown in the figure, Object Processing Unit 93 "may create or generate Collection of Object Representations 525 including Object Representation 625a representing Object 615a, Object Representation 625b representing Object 615b, and Object Representation 625c representing Object 615c." *Id.*, 80:23-28. Each of the Object Representations 625a, 625b, and 625c is a data structure that includes an object property generated by object processing. *Id.*, 80:23-47. For example, "***Object Representation 625a may include Object Property***

630aa 'Cat' in Category 635aa 'Type', Object Property 630ab '6 m' in Category 635ab 'Distance', Object Property 630ac '56°' in Category 635ac 'Bearing."" *Id.*, 80:28-32 (emphasis added). Based on this disclosure, it is apparent that in the context of the '344 patent, an object representation is a data structure that includes an object property generated by object processing.

The '344 patent further explains that each object property included in the object representation data structure is generated by object processing. *Id.*, 71:45-50. "Object Processing Unit 93 comprises the functionality for processing output from Sensor 92 to obtain information of interest, and/or other functionalities. As such, ***Object Processing*** Unit 93 can be used to process output from Sensor 92 to ***detect objects and/or their properties*** in Device's 98 surrounding." *Id.* (emphasis added). Thus, the object property in the object representation data structure is not just any property, but rather one that is generated by object processing.

The '344 patent discloses that, after being generated by object processing, object properties are stored in the collection of object representations, confirming that object representations are data structures that include object properties generated by object processing. Figure 2 from the '344 patent shown below discloses that Object Processing Unit 93 (annotated below with red oval) can be used to process output from Sensor 92 "to detect objects and/or their properties in Device's 98 surrounding." *Id*., 71:47-50.

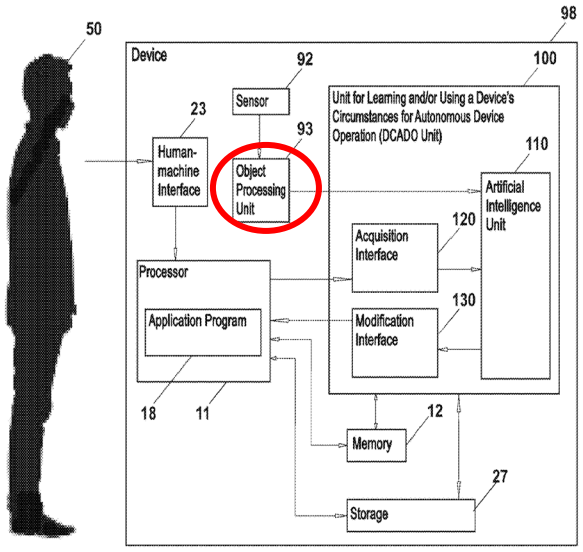


FIG. 2

Id., Figure 2. Object Processing Unit 93 creates or generates a

> Collection of Object Representations 525 (also referred to as Coll of Obj Rep or other suitable name or reference) and stor[es] one or more Object Representations 625 (also referred to simply as object representations, representations of objects, or other suitable name or reference), Object Properties 630 (also referred to simply as object properties or other suitable name or reference), and/or other elements or information into the Collection of Object Representations.

Id., 71:52-60. Because the object properties are generated by Object Processing Unit 93 and stored in the object representations, an object representation is a data structure whose object property is generated through object processing.

The specification further explains that object representations are data structures that include "knowledge (i.e. unit of knowledge, etc.) of Device's 98 circumstances including objects with various properties at a particular time." *Id.*, 72:4-6. These portions of the specification confirm that an object representation is a data structure that includes an object property generated by object processing.

Patent Owner's construction is confirmed by and consistent with the language of the claims and the various disclosures regarding object representations throughout the specification. For example, where claim 18 provides that an object representation includes "one or more three dimensional representations of one or more objects, one or more digital pictures that depict one or more objects, one or more digital pictures that depict one or more representations of one or more objects, one or more information about one or more properties of one or more objects," each of these is consistent with Patent Owner's construction of an object representation as being a data structure including an object property generated by object processing.

As explained above, Patent Owner's construction of "object representation" should be adopted. Construction of this term is appropriate because there is a dispute regarding this term, in particular with respect to Petitioner's mapping of prior art, as explained below in Section VI.

B. "means for processing" (Claim 20)

Patent Owner has disclaimed claim 20, so construction of this term is unnecessary.

VI. PETITIONER HAS NOT ESTABLISHED A REASONABLE LIKELIHOOD THAT THE CITED PRIOR ART RENDERS THE CHALLENGED CLAIMS UNPATENTABLE

A. Ground 1 Fails

Regarding Ground 1, Petitioner fails to show that Grotmol anticipates claims 3-5, 7-9, and 13-18 of the '344 patent. As explained in the following sections, Petitioner fails to show that Grotmol discloses an "object representation" as claimed in claim 3 and properly construed. Further, claims 4-5, 7-9, and 13-18 depend from claim 3 or a claim that depends from claim 3, and thus Petitioner has failed to show that Grotmol discloses these claims as well.

1. Claims 3-5, 7-9, and 13-18: Grotmol Does Not Disclose Object Representations

Petitioner fails to show that Grotmol anticipates claims 3-5, 7-9, and 13-18 of the '344 patent because Grotmol does not disclose the claimed "object representation" under the proper construction of that term. As discussed above, in the context of the '344 patent, an "object representation" should be construed as a "data structure that includes an object property generated by object processing." *Supra* Section V.A. Grotmol does not disclose the claimed "object representation" under this construction.

Claim 3 depends from claim 1 and requires:

> wherein the first circumstance representation includes a first one or more object representations, and wherein the second circumstance representation includes a second one or more object representations.

Ex. 1001, Claim 3. Claims 4-5, 7-9, and 13-18 depend from claim 3 or a claim that depends from claim 3 and thus also require the claimed object representations.

Petitioner's argument that the images disclosed in Grotmol constitute the claimed object representations is incorrect for several reasons. Petition, 23-25. ***First***, images are not "object representations" under the proper construction of that term. Petitioner has not established that images are data structures that include an object property generated by object processing. Thus, Petitioner has not shown that Grotmol discloses the claimed "object representations."

Figure 4B of the '344 patent makes clear that an object representation (data structure that includes an object property generated by object processing, *see supra* Section V.A) on its face is something entirely different than an image, especially when compared with Grotmol's image, e.g., shown in Figure 20A (both shown below).

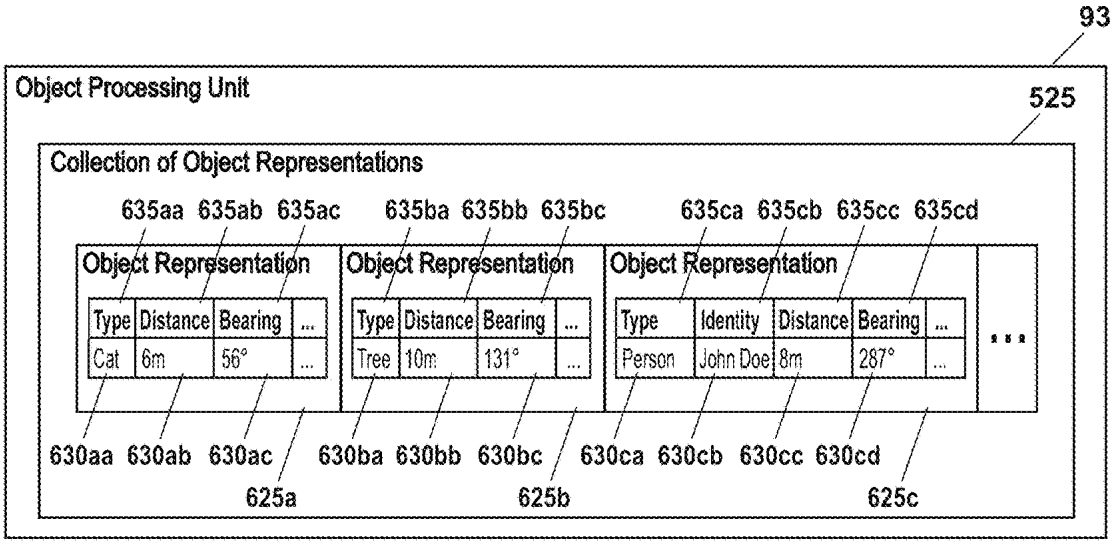


FIG. 4B

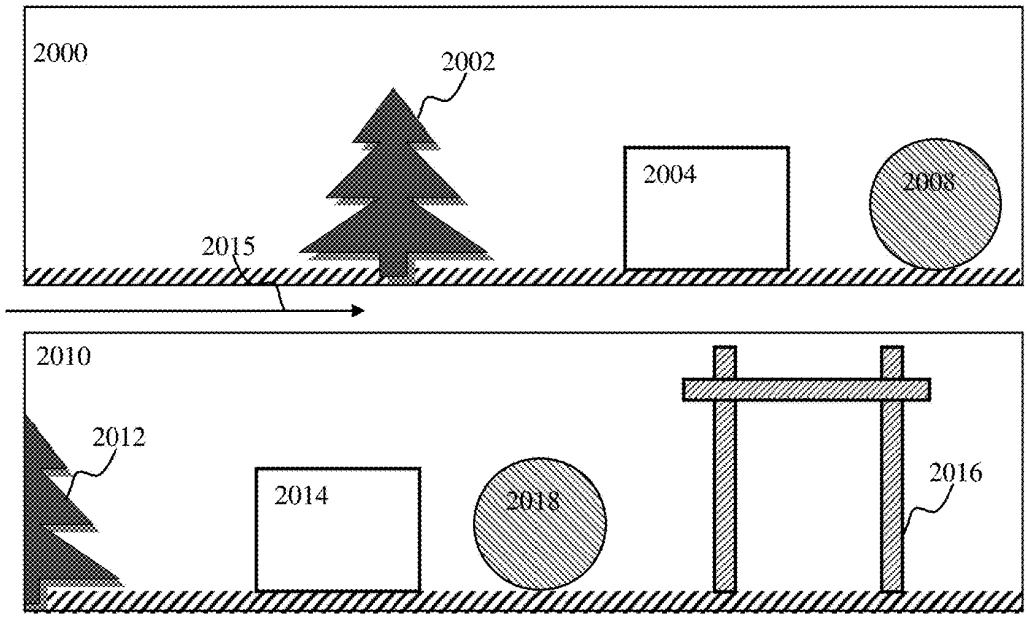


FIG. 20A

Ex. 1001, Figure 4B (top); Ex. 1004, Figure 20A (bottom).

As shown in Figure 4B, Object Processing Unit 93 "may create or generate Collection of Object Representations 525 including Object Representation 625a representing Object 615a, Object Representation 625b representing Object 615b, and Object Representation 625c representing Object 615c." Ex. 1001, 80:23-28. Each of the Object Representations 625a, 625b, and 625c is clearly not an image but rather is an entirely different data structure that includes an object property generated by object processing (i.e. processing of images and/or other output of sensors). *Id.*, 80:23-47. For example, "***Object Representation 625a may include Object Property 630aa 'Cat' in Category 635aa 'Type', Object Property 630ab '6 m' in Category 635ab 'Distance', Object Property 630ac '56°' in Category 635ac 'Bearing.'***" *Id.*, 80:28-32 (emphasis added). These labels and numbers indicating various object properties of interest (and which are only meaningful after output from the sensors such as images has first been processed into object properties, via object processing) show that an object representation in the '344 patent is a data structure including a generated object property. That is significantly different from Grotmol's image and its pixels.

Second, the pictures disclosed in Grotmol are also not object representations because they fail to include an object property generated by object processing, as required by the proper construction of "object representation." An object property included in an object representation is generated by object processing and is not

merely a pixel or value like in Grotmol's image that is not processed to generate object properties that are included in object representations. *Id.*, 71:45-50. "Object Processing Unit 93 comprises the functionality for processing output from Sensor 92 to obtain information of interest, and/or other functionalities. As such, Object Processing Unit 93 can be used to process output from Sensor 92 to detect objects and/or their properties in Device's 98 surrounding." *Id.* While Sensor 92 may sense or capture simple images including pixels, *id.*, 69:52-56, object representations include an object property that has been generated by object processing in the Object Processing Unit 93. *Id.*, 71:40-45. Examples of object properties provided by the '344 patent, including type of an object, distance of an object, bearing of an object, and coordinates of an object included in object representations, make clear that those properties are generated by object processing, unlike Grotmol's image that includes pixels that are not processed to generate object properties that are included in object representations. *Id.*, 72:14-73:2.

Object properties (e.g., type, distance, bearing, coordinates, etc.) included in an object representation are created by processing that includes processing images. Object processing, as described in more detail in the previous discussion of Object Processing Unit 93, includes processing of data from a sensor (e.g., image pixels obtained from a camera) to extract useful object properties such as, for example, type, distance, bearing, coordinates, etc. that are included in an object representation.

The images are the input into the object processing and object properties that are then included in an object representation are the output of the object processing. Logically, input into object processing is different than output of object processing. This confirms that Grotmol's images do not disclose "object representations" as properly construed. To the extent that the Board determines that the pixel values of Grotmol's image are properties, Grotmol nevertheless does not disclose that a pixel value is an ***object*** property ***generated by object processing*** as discussed above. An image is simply a matrix of pixels that are not processed to generate object properties that are included in object representations.

Petitioner's argument that "[t]he '344 patent does not define 'object representations' beyond its use in the phrase 'collection of object representations,' which it defines as 'one or more representations of objects detected by the sensor at a time,'" Petition, 23, is not correct. As previously discussed, Figure 4B and the associated disclosure of the specification make clear that an object representation is a data structure including an object property generated by object processing. Petitioner's failure to address these disclosures when seeking to map an image to the claimed "object representation" undermines its argument.

In addition, none of the portions of the specification cited by Petitioner actually support its position that an image discloses an object representation. Petition, 23-25. Petitioner's argument that the '344 patent discloses that a sensor

including a camera may "detect" an object representation misses the mark. *Id.*, 23-24. In the portion of the specification cited by Petitioner, the '344 patent explains that the camera "capture[s] pictures of Device's 98 surrounding" and that the camera "may be useful in detecting existence of an object" and properties such as "distance of an object, bearing/angle of an object, location of an object, bearing/angle of an object, shape/size of an object, activity of an object, and/or other properties of an object." Ex. 1001, 69:52-63 (cited by Petitioner at Petition, 24). While the camera "can be used to capture pictures," *id.*, the portion of the specification cited by Petitioner does not disclose that a picture (or image) captured by the camera is itself an object representation data structure that includes an object property generated by object processing per the above proper construction and as shown in Fig. 4B and described in the accompanying specification as discussed above. A camera is not designed to and does not detect any objects or object properties, but it only captures an image of whatever happens to be in the camera's field of view. Neither the camera nor the images captured by the camera know about any objects or object properties without those images being processed through object processing that Grotmol does not disclose. And contrary to Petitioner's arguments, the '344 patent does not equate pictures (or images) with object representations. *See* Petition, 35, 38-41, 46-47.

Petitioner also argues that the '344 patent provides examples of objects represented in pictures, Petition, 24, but the portion of the specification cited by

Petitioner merely provides examples of objects and does not support the assertion that an image is itself an object representation data structure that includes an object property generated by object processing per the above proper construction. Ex. 1001, 72:59-64. And Petitioner's statement that the '344 patent "further describes various approaches to object recognition," Petition, 24, does not mean that an image somehow is an object representation including an object property (e.g., type, distance, bearing, coordinates, etc.) of interest generated by object processing. As shown below in Figure 3A from the '344 patent, moreover, Picture Recognizer 94A that performs object recognition may indeed be a part of Object Processing Unit 93 that takes images as input, and processes and detects object properties (that make up object representations) from the images as explained above. This confirms that images that are not processed for object properties are not object representation data structures that include those object properties generated by processing of objects and/or object properties from those images.

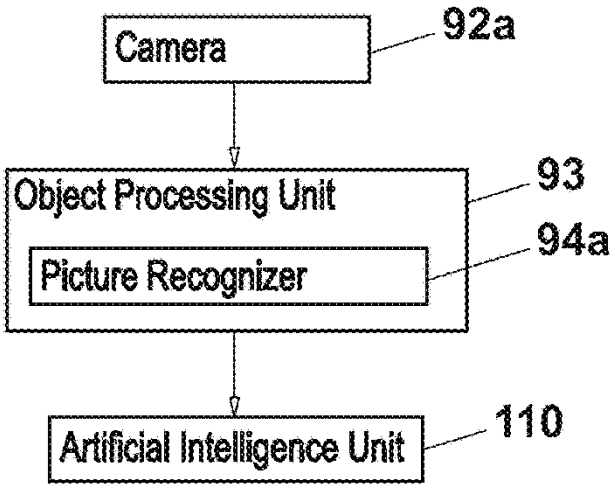


FIG. 3A

Ex. 1001, Figure 3A; *see also id.*, 69:52-70:32.

Petitioner's attempt to equate Grotmol's disclosure of "images" that comprise "representations of visual field," with the claimed object representations should be rejected. Petition, 24 (citing Ex. 1004, 38:56-65). Nothing in the cited portions of Grotmol discloses object representations that are data structures that include an object property generated by object processing.

As shown below in Figure 20A from Grotmol, images 2000 and 2010 are not data structures that include an object property generated by object processing, but rather are merely pictures that "comprise representations [of] one or more objects, e.g., a tree 2002, a rectangle, a ball 2008, and/or other objects." Ex. 1004, 38:56-65.

The pictures capture objects that happen to be in the field of view and are not processed into object properties, let alone object representation data structures that include processed object properties. Grotmol never discloses the claimed "object representations" as properly construed—namely, as data structures that include object properties generated by object processing.

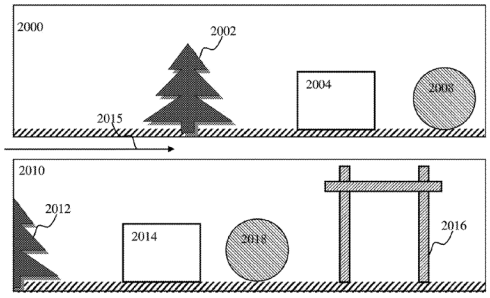


FIG. 20A

Id., Fig. 20A. As shown in Figure 20A above, an image is a matrix of pixels, whereas the claimed object representation is a data structure that includes object properties including characteristics, labels, and numbers, as shown in Figure 4B of the '344 patent. Therefore, Grotmol's image is logically, structurally, and functionally different than the object representation data structure as properly construed.

Grotmol does not contemplate an object representation that is a data structure including an object property generated by object processing. Grotmol discloses an image that is a matrix of pixels (Ex. 1004, 9:1-3, 9:16-17, 9:22-23) but does not disclose that the matrix includes an object property generated by object processing. And Petitioner has not shown that Grotmol discloses any other data structure that

includes an object property generated by object processing, either. That is not surprising, because Grotmol is not directed to the type of object processing that produces object properties (e.g., distance, bearing, etc. as shown in Fig. 4B of the ’344 patent) that are included in a data structure to promote efficient decision making regarding objects like in the ’344 patent.

Petitioner states that Grotmol “refer[s] to objects shown within images 2000 and 2010 as ‘object representations’ and ‘representations,’” Petition, 24 (citing Ex. 1004, 38:65-39:12). But while Grotmol describes representations of the tree 2012, the rectangle 2014, and the ball 2018 shown in Figure 20A as “object representations,” Ex. 1004, 38:65-39:12, they are not object representation data structures including an object property generated by object processing, as disclosed and claimed in the ’344 patent. In other words, Grotmol happens to use the words “object representation” recited in the claims but in a significantly different context and with a significantly different meaning than what is claimed in the ’344 patent, and does not meet the limitation under the proper construction.

Finally, Grotmol’s disclosure that a sensor can be used for object recognition and edge detection does not mean that Grotmol discloses object representations as data structures that include an object property generated by object processing. Petition, 25. Grotmol’s alleged disclosure of object and edge detection does not

support the argument that Grotmol discloses object representations that are ***data structures including an object property generated by*** object processing.

B. Ground 2 Fails

Regarding Ground 2, Petitioner fails to show that Grotmol in view of the knowledge of a POSA renders claims 10 and 11 of the ’344 patent obvious. Petitioner fails to show that Grotmol discloses object representations as required by claim 3. Because claims 10-11 depend from claim 3, Petitioner has failed to show that Grotmol in view of the knowledge of POSA discloses or suggests all of the limitations of claims 10 and 11 and thus those claims are not obvious over Grotmol in view of the knowledge of a POSA.

C. Ground 3 Fails

Regarding Ground 3, Petitioner fails to show that Grotmol in view of Hickman renders claims 6 and 11-12 of the ’344 patent obvious. Petitioner fails to show that Grotmol discloses object representations as required by claim 3. Because claims 6 and 11-12 depend from claim 3, and the Petition does not cite Hickman for the above-discussed deficiencies of Grotmol regarding claim 3, Petitioner has failed to show that Grotmol in view of Hickman discloses or suggests all of the limitations of claims 6 and 11-12.

VII. INSTITUTION SHOULD BE DENIED UNDER 35 U.S.C. § 314(a)

Petitioner has failed to carry its burden to show a reasonable likelihood of prevailing on its petition for numerous reasons, as discussed above. Denial of institution is further warranted under the discretion accorded to the Board in 35 U.S.C. §314(a). Petitioner's failure to address the Board's discretion in its petition confirms that the Board should use its discretion to deny institution.

Apple, Inc. v. Fintiv, Inc. provides a multifactor test for the Board to consider when exercising its discretion to deny institution. IPR2020-00019, Paper 11 (precedential) ("*Fintiv*"). While the Director has identified three circumstances in which denial under *Fintiv* is inappropriate (*see* Katherine K. Vidal, *Interim Procedure for Discretionary Denials in AIA Post-Grant Proceedings with Parallel District Court Litigation* (June 21, 2022) ("Fintiv Memo")), none of those circumstances apply. In addition, the enumerated factors in *Fintiv* favor denial in this case. In view of *Fintiv*, the Board should exercise its discretion to deny institution of this IPR.

A. *Fintiv* Applies To This Proceeding

This proceeding does not implicate any of the circumstances in which *Fintiv* is inapplicable. First, although *Fintiv* would not apply to a co-pending ITC proceeding, Fintiv Memo, 7, this exception is not relevant because the co-pending proceeding—*Autonomous Devices, LLC v. Tesla, Inc.*, No. 1:22-cv-01466-MN (D.

Del) (the "Delaware Litigation")—relevant to this proceeding is a district court (not ITC) case. Second, *Fintiv* would be inapplicable if the petition includes a *Sotera*-type stipulation that forecloses from the district court proceeding all grounds that were raised or reasonably could have been raised in an IPR. Fintiv Memo, 7. This exception does not apply here because Petitioner made *no* stipulation, let alone a *Sotera* stipulation, in its petition. *See generally* Petition.

Finally, *Fintiv* would not apply where the merits are compelling. Fintiv Memo, 4-5. This bar is a higher standard than for institution; it is only met if it is "highly likely that the petitioner would prevail with respect to at least one challenged claim." *OpenSky Indus., LLC v. VLSI Tech. LLC*, IPR2021-01064, Paper 102 at 49 (PTAB Oct. 4, 2022) (precedential). Here, the merits are not compelling. As discussed above, the cited references suffer from numerous fatal deficiencies. In light of these deficiencies, the petition is not likely to succeed with respect to any remaining claim (after the disclaimer discussed above in Section I) and thus *Fintiv* is applicable here.

B. The *Fintiv* Factors Weigh In Favor of Denying Institution

Fintiv provides a six-factor test to guide the Board's discretion in whether to grant or deny institution. As discussed below, five of the six *Fintiv* factors favor denial.

1. Factor 1: No Motion to Stay has been filed and the district court is unlikely to grant a stay

Factor 1 asks "whether the court granted a stay or evidence exists that one may be granted if a proceeding is instituted." *Fintiv*, 6. This factor favors denial of institution because presently there is no stay in the district court proceeding, and there is a low likelihood of a stay. The advanced stage of the underlying litigation disfavors a stay and a stay is unlikely to simplify the issues in the underlying litigation. Thus, factor 1 weighs against institution.

2. Factor 3: The parties and district court have invested significant time into the district court litigation

Factor 3 strongly favors denial because the parties have invested and will continue to invest significant resources in the parallel district court litigation. The Board weighs "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*, 9.

The Board will decide whether to institute this IPR on or around December 15, 2023. By that time, the district court and the parties will have completed the following: motion to dismiss briefing, exchanged preliminary infringement and invalidity contentions, exchanged list of claim terms and proposed constructions, and substantially completed document production. *See* Ex. 2005 (showing the district court docket); Ex. 2006 (district court scheduling order). Moreover, fact

discovery closes on February 9, 2024. Patent Owner has spent hundreds of hours reviewing Tesla's technical production and the parties have exchanged thousands of documents. Further, by mid-December 2023 (the institution decision deadline), the parties will have likely begun deposition discovery. Finally, Petitioner waited seven months after the parallel district court litigation was filed to file its petition. *See* Ex. 2005 (showing the district court docket and filing of complaint on November 7, 2022); Petition, 67 (showing Petition filed on June 9, 2023). This unreasonable delay counsels against institution.

As discussed above, the parties have invested and will continue to invest significant resources in the parallel district court litigation, and accordingly, this factor favors denial.

3. Factor 4: There is significant overlap between this proceeding and the district court case

Factor 4 assesses the overlap between the issues raised in the petition and in the parallel proceeding. *Fintiv*, 11. The Board should deny institution because Petitioner has not stipulated to limit its ability to challenge the '344 patent claims in the district court case with prior art similar to that asserted in this proceeding. Further, Petitioner has not filed a stipulation in the district court, giving Petitioner the opportunity to avail itself of duplicative efforts between the district court

proceeding and the Board. *See Sotera Wireless, Inc. v. Masimo Corp*., IPR2020-01019, Paper 12 at 18-19 (PTAB Dec. 1, 2020).

Petitioner appears to be positioning itself to be able to reassert in the district court case, following the conclusion of the IPR process, some or all of the very same references that it has petitioned the Board to review or that it reasonably could have raised before the Board. For example, knowing Patent Owner's deadline for filing this Preliminary Patent Owner Response (POPR), Petitioner sought and obtained an extension that prevented Patent Owner from reviewing Petitioner's invalidity contentions, before this POPR is due. Petitioner's invalidity contentions will almost certainly identify multiple combinations of the references relied upon in the Petition in combination with various other references. In such a case, Petitioner's invalidity theories will rely on the same art asserted in this IPR. *Samsung Elecs. v. Clear Imaging Research, LLC*, IPR2020-01400, Paper 13 at 20-21 (PTAB Feb. 3, 2021) (finding that the petition included sufficient overlap of issues with the parallel district court where the petitioner relied on "substantially identical prior art" in both proceedings). Thus, Petitioner will argue the same references, using the same evidence and likely the same expert at the district court level—which will likely result in significantly overlapping issues between the district court case and this IPR.

Petitioner's failure to provide a stipulation regarding prior art that it will not pursue in the district court case leaves open the possibility of parallel litigation for

the same claims using printed publications and various system combinations not asserted in the Petition. A meaningful stipulation would be broad, tracking the estoppel language of 35 U.S.C. § 315(e), and would be filed in the parallel district court proceeding. Accordingly, efficiency would not be served in the present IPR by allowing Petitioner to challenge the '344 patent claims with the same prior art references, after expending considerable resources in the district court. *See Fintiv*, 13.

4. Factor 5: The parties in both proceedings are the same

"If a petitioner is unrelated to a defendant, the Board has weighed this fact against exercising discretion to deny institution under *NHK*." *SK Innovation Co. LTD., v. LG Chem, LTD.*, IPR2020-01239, Paper 14 at 20-21 (PTAB Jan. 12, 2021). However, when the parties are the same in a parallel proceeding and the IPR, as they are here, "Factor 5 weighs in favor of exercising discretion to deny." *Id*. Accordingly, Factor 5 weighs in favor of denial of institution.

5. Factor 6: The merits of Petitioner's petition are not strong

This factor favors denial of institution given the Petition's weakness on the merits. *E-One Inc. v. Oshkosh Corp.*, IPR2019-00162, Paper 16 at 13-20 (PTAB June 5, 2019). "[I]f the merits of the grounds raised in the petition are a closer call, then that fact has favored denying institution when other factors favor denial are present." *Fintiv*, 15. As analyzed in the preceding sections, the merits of the Petition

are weak in light of at least Petitioner's failure to demonstrate that the cited references disclose all of the limitations of the claims discussed above in Section VI. Accordingly, this factor weighs in favor of denial.

VIII. CONCLUSION

Accordingly, for at least the reasons set forth above, institution of *inter partes* review should be denied.

Dated: September 15, 2023

Respectfully submitted,

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CERTIFICATION OF WORD COUNT

The undersigned hereby certifies that the portions of the above-captioned **PATENT OWNER'S PRELIMINARY RESPONSE** specified in 37 C.F.R. § 42.24 have 5,934 words, in compliance with the 14,000 word limit set forth in 37 C.F.R. §42.24(b)(1). This word count was prepared using Microsoft Word 2016.

Dated: September 15, 2023

By: */Arvind Jairam/*
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CERTIFICATION OF SERVICE

The undersigned hereby certifies that a copy of this **PATENT OWNER'S PRELIMINARY RESPONSE** has been served on Petitioner via email on the following counsel of record for Petitioner:

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