

**IN THE UNITED STATES DISTRICT COURT  
FOR THE DISTRICT OF DELAWARE**

DRB SYSTEMS, LLC,

Plaintiff,

v.

SONNY'S ENTERPRISES, LLC,

Defendant.

Civil Action No. 23-960-RGA

MEMORANDUM OPINION

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September 18, 2024

  
ANDREWS, U.S. DISTRICT JUDGE:

Before me is the issue of claim construction of multiple terms in U.S. Patent No. 11,127,283 (“the ’283 patent”). The parties submitted a Joint Claim Construction Brief. (D.I. 39). I heard oral argument on August 26, 2024. (Markman Tr.).<sup>1</sup>

## **I. BACKGROUND**

On August 31, 2023, Plaintiff DRB Systems filed a complaint against Defendant Sonny’s Enterprises, alleging infringement of the ’283 patent. (D.I. 1). The ’283 patent discloses “systems and methods [to] prevent collisions in a carwash property.” (’283 patent, Abstract). The ’283 patent has an effective filing date of July 25, 2016. (See ’283 patent, 1:7–11).

## **II. LEGAL STANDARD**

“It is a bedrock principle of patent law that the claims of a patent define the invention to which the patentee is entitled the right to exclude.” *Phillips v. AWH Corp.*, 415 F.3d 1303, 1312 (Fed. Cir. 2005) (en banc) (internal quotation marks omitted). “[T]here is no magic formula or catechism for conducting claim construction.’ Instead, the court is free to attach the appropriate weight to appropriate sources ‘in light of the statutes and policies that inform patent law.’” *SoftView LLC v. Apple Inc.*, 2013 WL 4758195, at \*1 (D. Del. Sept. 4, 2013) (alteration in original) (quoting *Phillips*, 415 F.3d at 1324). When construing patent claims, a court considers the literal language of the claim, the patent specification, and the prosecution history. *Markman v. Westview Instruments, Inc.*, 52 F.3d 967, 977–80 (Fed. Cir. 1995) (en banc), *aff’d*, 517 U.S. 370 (1996). Of these sources, “the specification is always highly relevant to the claim construction analysis. Usually, it is dispositive; it is the single best guide to the meaning of a

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<sup>1</sup> Citations to the transcript of the argument, which is not yet docketed, are in the format “Markman Tr. at \_\_\_\_.”

disputed term.” *Phillips*, 415 F.3d at 1315 (internal quotation marks omitted). “While claim terms are understood in light of the specification, a claim construction must not import limitations from the specification into the claims.” *Deere & Co. v. Bush Hog, LLC*, 703 F.3d 1349, 1354 (Fed. Cir. 2012) (citing *Phillips*, 415 F.3d at 1323).

“[T]he words of a claim are generally given 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, i.e., as of the effective filing date of the patent application.” *Id.* at 1312–13 (citations and internal quotation marks omitted). “[T]he ordinary meaning of a claim term is its meaning to [an] ordinary artisan after reading the entire patent.” *Id.* at 1321 (internal quotation marks omitted). “In some cases, the ordinary meaning of claim language as understood by a person of skill in the art may be readily apparent even to lay judges, and claim construction in such cases involves little more than the application of the widely accepted meaning of commonly understood words.” *Id.* at 1314.

When a court relies solely upon the intrinsic evidence—the patent claims, the specification, and the prosecution history—the court’s construction is a determination of law. *See Teva Pharms. USA, Inc. v. Sandoz, Inc.*, 574 U.S. 318, 331 (2015). The court may also make factual findings based upon consideration of extrinsic evidence, which “consists of all evidence external to the patent and prosecution history, including expert and inventor testimony, dictionaries, and learned treatises.” *Phillips*, 415 F.3d at 1317–19 (quoting *Markman*, 52 F.3d at 980). Extrinsic evidence may assist the court in understanding the underlying technology, the meaning of terms to one skilled in the art, and how the invention works. *Id.* Extrinsic evidence, however, is less reliable and less useful in claim construction than the patent and its prosecution history. *Id.*

### III. CONSTRUCTION OF AGREED-UPON TERMS

I adopt the following agreed-upon constructions:

Claim Term	Claims	Construction
“Automotive-vehicle anti-collision system that prevents automotive-vehicle collisions within a carwash tunnel during operation, the system comprising”	’283 patent, claim 1	The preamble is non-limiting.
“carwash tunnel”	’283 patent, claim 1	“an area where a vehicle can be washed or serviced”
“LIDAR, RADAR, or SONAR”	’283 patent, claim 3	plain and ordinary meaning, which is “Light Detection and Ranging” (LIDAR), “Radio Detection and Ranging” (RADAR), or “Sound Navigation and Ranging” (SONAR)
“tracked position”	’283 patent, claim 1	plain and ordinary meaning, which is “position being tracked”
“tracking the respective positions of a plurality of automotive vehicles as the plurality of automobile vehicles move along the substantially linear path through the carwash tunnel”	’283 patent, claim 1	plain and ordinary meaning, which is “tracking the respective positions of the plurality of vehicles as the plurality of automobile vehicles move along the substantially linear path through the carwash tunnel”
“configured to” <sup>2</sup>	’283 patent, claims 1, 2, 4	“designed to but is not merely capable of”

### IV. CONSTRUCTION OF DISPUTED TERMS

The parties dispute the meaning of terms found in claims 1, 2, and 4 of the ’527 patent.

These claims state:

1. Automotive-vehicle anti-collision system that prevents automotive-vehicle collisions within a carwash tunnel during operation, the system comprising:

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<sup>2</sup> The parties originally submitted “configured to” as a disputed term. (See D.I. 39 at 42). Prior to the Markman hearing, the parties informed the Court that they had reached an agreement on the term’s definition. (D.I. 47).

a carwash tunnel;  
 an automotive-vehicle conveyor attached to the carwash tunnel and the conveyor configured to move a plurality of automotive vehicles inline (sic) along a substantially linear path through the carwash tunnel;  
 automotive-vehicle washing equipment attached to the carwash tunnel and the washing equipment configured to wash automotive-vehicle exterior surfaces as an automotive vehicle moves along the substantially linear path through the carwash tunnel;  
 a vision device attached to the carwash tunnel and the vision device configured to receive visual data of respective locations of a plurality of automotive vehicles within the carwash tunnel;  
***a central controller configured to perform the functions of:***  
     ***controlling the conveyor to move or propel vehicles, change the conveyor speed, or to stop the conveyor;***  
     controlling the washing equipment;  
     receiving the visual data from the vision device;  
     tracking the respective positions of a plurality of automotive vehicles as the plurality of automobile vehicles move along the substantially linear path through the carwash tunnel;  
     ***creating a modeled path of an automotive vehicle*** moving through the carwash tunnel via the conveyor; and  
     ***giving a stop conveyor command if a tracked position of an automotive vehicle does not match the modeled path.***<sup>3</sup>

('283 patent, 10:32–62 (disputed terms bolded and italicized)).

2. The system of claim 1, wherein ***the central controller is further configured to perform the function of*** providing a notification upon the occurrence of an event.

('283 patent, 10:63–65 (disputed terms bolded and italicized)).

4. The system of claim 3, wherein ***the central controller is further configured to perform the function of*** tracking the position of a specific point on an automobile as the automobile moves along the substantially linear path through the carwash tunnel.

('283 patent, 11:1–5 (disputed terms bolded and italicized)).

Claim 3, from which claim 4 depends, recites:

3. The system of claim 1, wherein the vision device uses LIDAR, RADAR, or SONAR.

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<sup>3</sup> I understand claim 1 to be a representative claim for the purpose of construing the disputed terms.

(’283 patent, 10:66–67).

**1. “a central controller configured to perform the functions of:” (’283 patent, claims 1, 2, 4)**

- a. *Plaintiff’s proposed construction*: no construction necessary; if construction is required, plain and ordinary meaning, which is “a central controller configured to perform the functions of”
- b. *Defendant’s proposed construction*: “a central controller designed to perform all the functions of”
- c. *Court’s construction*: no construction necessary

In accordance with my oral order, I find no construction necessary for this term. (D.I.

48). As I noted, “The parties agree, and the language of Claim 1 is clear as written, that the six functions are each required.” *Id.*

**2. “controlling the conveyor to move or propel vehicles, change the conveyor speed, or to stop the conveyor” (’283 patent, claim 1)**

- a. *Plaintiff’s proposed construction*: no construction necessary; plain and ordinary meaning, which is “the central controller is configured to control the conveyor to move or propel vehicles, change the conveyor speed or to stop the conveyor”
- b. *Defendant’s proposed construction*: “controlling the conveyor to move or propel vehicles, change the conveyor speed and to stop the conveyor”
- c. *Court’s construction*: “controlling the conveyor to move or propel vehicles, to change the conveyor speed, and to stop the conveyor”

The parties dispute whether the “or” connecting the three functions should be understood as conjunctive or disjunctive within the term to be construed.<sup>4</sup>

“The Federal Circuit has consistently interpreted the word ‘or’ to mean that the items in the sequence are alternatives to each other.” *Schumer v. Lab’y Comput. Sys., Inc.*, 308 F.3d 1304, 1311 (Fed. Cir. 2002). However, while “or” can refer to alternatives, that is not a hard-and-fast rule. *Intel Corp. v. Qualcomm Inc.*, 2023 WL 4196901, at \*4 (Fed. Cir. June 27, 2023). “Proper claim construction . . . demands interpretation of the entire claim in context, not a single

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<sup>4</sup> The parties agree that the three functionalities are distinct. (*See* Markman Tr. at 51:18–53:5).

element in isolation.” *Hockerson-Halberstadt, Inc. v. Converse Inc.*, 183 F.3d 1369, 1374 (Fed. Cir. 1999).

The proper inquiry is whether the patent applicant “intended its usage of ‘or’ . . . to embrace ‘and.’” *Kustom Signals, Inc. v. Applied Concepts, Inc.*, 264 F.3d 1326, 1331 (Fed. Cir. 2001). I agree with Defendant that the claim language demonstrates the applicant’s intent for “or” to be read conjunctively. Claim 1 requires a central controller that can perform, among other functions, the function of “giving a stop conveyor command.” If the controller meets this requirement, it follows that it is also capable of “controlling the conveyor . . . to stop the conveyor.” In other words, the claim element of “controlling the conveyor . . . to stop the conveyor” is not optional. Under a disjunctive reading of “or,” the central controller would never need to be designed to “move or propel vehicles” or to “change the conveyor speed.” As Plaintiff’s proposed construction would render these claim terms superfluous, the logical conclusion is that “or” should be construed as conjunctive. *See Wasica Fin. GmbH v. Cont’l Auto. Sys., Inc.*, 853 F.3d 1272, 1288 n.10 (Fed. Cir. 2017) (“It is highly disfavored to construe terms in a way that renders them void, meaningless, or superfluous.”); *Merck & Co. v. Teva Pharms. USA, Inc.*, 395 F.3d 1364, 1372 (Fed. Cir. 2005) (“A claim construction that gives meaning to all the terms of the claim is preferred over one that does not do so.”).

Plaintiff argues that “giving a stop conveyor command could be something different from actually stopping the conveyor itself.” (Markman Tr. at 48:24–51:17). In particular, Plaintiff argues that the “stop conveyor command” claim element, rather than being limited to the central controller giving an instruction to another part of the computer-controlled system, could refer to

a “signal” given to a carwash employee who would then perform some action to stop the conveyor.<sup>5</sup> (*Id.*).

Plaintiff’s position is inconsistent with the claim language and the patent specification. The controller in claim 1 is described as “the central controller,” suggesting it is the dominant controller that governs operation of all carwash equipment. This understanding is supported by the specification’s description of the central controller and the control system into which it is incorporated. (’283 patent, 8:33–38 (“The wash tunnel control system 10 . . . is responsible for the normal operation of all standard automatic carwash functions as disclosed herein.”); ’283 patent, 4:48–62 (“System 10 also includes a central controller 22. . . . Central controller 22 is configured to control the equipment in wash tunnel 20 . . . .”). It seems contradictory for the central controller, which controls operation of “all standard automatic carwash functions,” to allow delegation of the important function of stopping the conveyor to an employee. This discrepancy is especially apparent when considering that the central controller must nevertheless still be configured to “control[] the conveyor” (so it can “move or propel vehicles” or “change the conveyor speed”).

Assigning an employee to stop the conveyor is likewise inconsistent with the specification’s description of the described systems. The patent’s “Field of Disclosure” section states that the patent “relates to systems and methods for avoiding collisions, or pileups, at a carwash.” (’283 patent, 1:15–16). It continues, “More particularly, this disclosure relates to

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<sup>5</sup> In the claim construction briefing, Plaintiff argued “the central controller can give [the stop conveyor] command to the conveyor, another controller, or some other component of the system.” (D.I. 39 at 14). Even if the command must first pass through intermediary system components, I do not see how a central controller that gives a stop conveyor command that reaches the conveyor and causes it to stop does not “control the conveyor . . . to stop the conveyor.” Plaintiff chose not to raise this argument at the Markman Hearing, instead focusing on its argument involving carwash employees.



computer controlled machine vision and machine learning systems that monitor, detect, and respond to events in and around a carwash facility.” (’283 patent, 1:16–17; *see also* ’283 patent, 8:33–38). The specification makes clear that it is the computer-controlled systems that perform the functions necessary for responding to anticipated collisions. This automation makes sense in light of the patent’s anti-collision purpose and its detailing of risks inherent in prior art systems that rely on human employees. (*See* ’283 patent, 1:30–35 (“For example, if a vehicle has problems during the wash, and jumps a roller on the conveyor, it may collide with another vehicle, or piece of carwash equipment. If no carwash employee notices this, and the conveyor is not stopped, additional vehicles can be involved, causing damaging and expensive pileups.”)).

Furthermore, the patent applicant drafted the claim language to require a stop conveyor “command” rather than, for example, a “signal.” I do not believe the applicant sought to prophesy a dystopian future in which machines “command” humans. The selected word choice is only compatible with an understanding that the “commands” are being communicated among computer-controlled components.

I reject Plaintiff’s position that the claim does not require the central controller to be configured to perform both the functions of giving a stop conveyor command and of stopping the conveyor. Accepted canons of construction therefore dictate that “or” is to be read conjunctively. I adopt Defendant’s proposed construction with some minor grammatical alterations.

**3. “creating a modeled path of an automotive vehicle” (’283 patent, claim 1)**

- a. *Plaintiff’s proposed construction*: “determining where an automotive vehicle should be using visual data received from the vision device”
- b. *Defendant’s proposed construction*: “creating a model of the entire path an automotive vehicle takes”
- c. *Court’s construction*: “creating a model of the entire path of an automotive vehicle”

At the Markman hearing, Plaintiff indicated it was amenable to Defendant's construction, absent the term "entire." (Markman Tr. at 12:7–13:6). The parties' disagreement has evolved to now center on whether the claim incorporates this particular limitation. I nevertheless start by addressing the parties' dispute over the scope of "modeled path," beyond whether it requires an entire path, which featured more prominently in the parties' briefing.

Ignoring for the moment the issue of the amount of the path to be modeled, I adopt Defendant's proposal for "modeled path," which is to apply the plain and ordinary meaning of the term. As I stated at the hearing, the term needs no construction as its meaning is clear on its face; it means, "essentially, . . . a path as embodied in a model." (*Id.* at 11:25–12:5).

Plaintiff's proposed construction is overly broad. The claims require, as Plaintiff acknowledges, creating and comparing to a modeled path. (*Id.* at 5:3–16, 10:8–13). Rather than "providing context and clarity for what the modeled path is," Plaintiff's proposal completely eliminates the need to have a modeled path. (*See id.* at 11:4–12:6). A previous version of the claim language included the limitation "preventing a collision between two automotive vehicles . . . based upon a tracked position of a first automotive vehicle in the carwash tunnel relative to a tracked position of a second automotive vehicle in the carwash tunnel." (D.I. 31-5, Ex. 4, at 2–3). The Examiner rejected this claim language on both written description and obviousness grounds. (*See* D.I. 31-6, Ex. 5 at 6–7, 11–12). In response, the patent applicant amended the claims to replace the rejected limitation with the two "modeled path" claim limitations that ultimately became part of the final issued claim language. (D.I. 31-7, Ex. 6, at 3; *see* '283 patent, 10:58–62). As Defendant notes, Plaintiff's proposed construction is broad enough to encompass the rejected claim limitation. (*Id.* at 25:19–27:13).

Plaintiff appears to base its construction, in part, on its position that creation of the modeled path must use visual data from the vision devices. (*See* D.I. 39 at 26; Markman Tr. at 13:22–14:8). Plaintiff’s proposed construction, however, does not reflect this meaning as it reads out “modeled path.” In addition, as Defendant notes, the claim language and specification do not disclose any particular embodiment in which the model must exist or any limitations as to how the modeled path is created. (Markman Tr. at 18:2–20, 24:15–25:4). Plaintiff argues that the tracking system includes both a modeling module and a tracking module. (*Id.* at 29:10–17). The patent specification does state, “In some embodiments, the tracking system further may include a modeling module that creates a model of a wash tunnel path.” (’283 patent, 7:52–54). However, the specification never asserts that the modeling module must use data from the vision devices. I do not rule out that creation of such a model could include “using visual data received from the vision device,” but I do not find it to be a requirement of the creation process. This conclusion does not change the requirement that a model of the path must exist in some form. I reject Plaintiff’s definition as it reads out the “modeled path” limitation.

The parties’ primary dispute focuses on whether the claim requires a model of the “entire” path. I conclude that it does. The parties selected the disputed term as “creating a modeled path of an automotive vehicle.” That language appears as part of a limitation that requires “creating a modeled path of an automotive vehicle moving through the carwash tunnel via the conveyor.” (’283 patent, 10:58–59). A modeled path that extends through the wash tunnel is implied to cover the entire wash tunnel, from entrance to exit. When asked to address the entire claim limitation at the Markman hearing, Plaintiff’s counsel failed to provide any explanation as to how this language can be reconciled with a construction that does not encompass the entire path. (*See* Markman Tr. at 13:7–16:7). Plaintiff’s counsel instead pointed

to one portion of the specification which appears to serve as Plaintiff's only support for its proposed construction. (*See id.*; *see also id.* at 28:19–32:12).

Plaintiff cites a section of the specification that reads:

Accordingly, disclosed systems include a system having a wash tunnel including a conveyor and wash equipment, at least one vision device having a field of view that includes at least a portion of the wash tunnel, and a central controller including a tracking system, and a wash tunnel control system, and wherein the tracking system communicates with the at least one vision device and the wash tunnel control system to control the conveyor based upon events observed in the field of view.

(’283 patent, 2:43–51). Plaintiff argues this sentence demonstrates that the claimed system requires only tracking of a portion of the wash tunnel. (D.I. 39 at 19–20). Defendant cites a portion of the specification in the “summary” section, which states, “The disclosed collision prevention systems provide superior replacements to the systems that solely implement photoelectric eye activation by, among other things, tracking the entire path of the vehicle instead of one point at the entrance/exit.” (’283 patent, 2:33–37). Defendant argues this sentence demonstrates that the “entire path” is the improved feature of the patent that distinguishes it from prior art systems.<sup>6</sup> (D.I. 39 at 22–23). The parties’ citations appear to be in conflict and support their respective positions.<sup>7</sup>

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<sup>6</sup> Plaintiff, presumably based on Defendant’s citation to this section of the specification, argues that Defendant presents a disclaimer argument. (D.I. 39 at 26–27; Markman Tr. at 15:24–16:7). I agree with Defendant that, though the cited sentence would be relevant to a disclaimer argument, Defendant is not basing its position on disclaimer. (*See* Markman Tr. at 21:9–28:12). Defendant’s position relies on interpreting the term at issue by using other sections of the claim language to provide context, such as noting that the modeled path goes “through the carwash tunnel,” and by citing to portions of the specification consistent with its reading of the claim language. *See Markman*, 52 F.3d at 979–80 (“Claims must be read in view of the specification, of which they are a part.”).

<sup>7</sup> Both parties rely on sections of the specification that discuss tracking rather than modeling. I understand the parties to agree that the tracked path covers the same amount of the tunnel as the modeled path. (*See* Markman Tr. at 22:16–23:2, 32:4–9).

Plaintiff argues that Defendant’s cited portion of the specification should not be considered to cover the claimed invention because “‘disclosed systems’ isn’t just limited to what’s claimed in this patent because the disclosed system also includes unclaimed elements as well.” (Markman Tr. at 31:18–22). I agree that a patent can disclose unclaimed subject matter. *See, e.g., Johnson & Johnston Assocs. Inc. v. R.E. Serv. Co.*, 285 F.3d 1046, 1054 (Fed. Cir. 2002) (“[W]hen a patent drafter discloses but declines to claim subject matter . . . this action dedicates that unclaimed subject matter to the public.”). Plaintiff, however, ignores that its own cited section also describes “disclosed systems.” I conclude that the clear language of the claim, which describes the modeled path as going “through the carwash tunnel,” shows that the entire path of the tunnel is modeled. In the end, the claim language, which is consistent with what the patentee states makes the invention “superior” to the state of the art, carries more weight than one potentially conflicting sentence from the specification. I adopt Defendant’s construction.

**4. “giving a stop conveyor command if a tracked position of an automotive vehicle does not match the modeled path” (’283 patent, claim 1)**

- a. *Plaintiff’s proposed construction*: “Giving a stop command if a tracked position of an automotive vehicle is not in the determined location where it should be.”
- b. *Defendant’s proposed construction*: “Giving a stop command if a tracked position of an automotive vehicle does not match the modeled path. Stop command is not based on comparing the relative position of two vehicles in the car wash tunnel”
- c. *Court’s construction*: “giving a stop conveyor command if a tracked position of an automotive vehicle does not match its position in the modeled path”

Prior to the Markman hearing, I notified the parties of the construction that I intended to adopt. (*See* D.I. 48). Defendant agreed with my proposed construction. (Markman Tr. at 36:16–38:3). Plaintiff largely agreed with the construction, but proposed replacing “in the modeled path” with “relative to the modeled path.” (*Id.* at 32:15–35:15).

Plaintiff has no substantive disagreement with the now-adopted construction. (*See id.* at 34:13–23). As I explained, this construction was meant to reflect the conceptual conflict with

comparing the tracked position, which reflects the car's location at a single point in time, with the modeled path, which represents the line that the car follows through the carwash over a period of time. (*Id.* at 35:16–25). The adopted construction reflects the fact that the correct comparison is between a tracked position and the corresponding position that falls on the modeled path.

Plaintiff does not provide a satisfactory explanation for why the word “in” should be changed to “relative to.” Plaintiff’s counsel cited to a portion of the specification which reads, “In further embodiments, the method may further include verifying a location of the vehicle against the modeled path through the wash tunnel . . . .” (’283 patent, 3:45–48; Markman Tr. at 35:1–15). This sentence does not explain why “relative to” should be considered the better phrasing option. It merely supports the agreed-upon substantive definition of the limitation: that the tracked location must be matched to a corresponding location along the modeled path. Plaintiff further argues that the modeled path should not be limited to any sort of “form.” (Markman Tr. at 35:8–15). As stated above, I agree that the claims do not specify an embodiment that the modeled path must exist in. I do not see why this conclusion demonstrates that “relative to” is a more accurate or less confusing wording choice than “in.” The term “in” makes clear that the point of comparison must be some point that falls on the modeled path. The term “relative to” potentially introduces some ambiguity as to whether the position for comparison falls on the modeled path. I therefore reject Plaintiff’s proposed modification.

## **V. CONCLUSION**

Within five days the parties shall submit a proposed order consistent with this Memorandum Opinion.