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## IN THE UNITED STATES DISTRICT COURT FOR THE NORTHERN DISTRICT OF NEW YORK

LIGHTGUIDE, INC.,

Plaintiffs,

Case No. 5:24-cv-00482 (GTS/TWD)

ARKITE NV,

v.

Defendant.

## **COMPLAINT**

LightGuide, Inc. hereby complains of Arkite NV and alleges as follows:

## THE PARTIES

1. LightGuide, Inc. is a corporation organized and existing under the laws of the State of Delaware, with a place of business at 48443 Alpha Drive, Suite 175, Wixom, Michigan 48393, and is doing business in this District (hereinafter "LightGuide" or "Plaintiff").

2. Defendant Arkite NV (hereinafter "Arkite" or "Defendant"), upon information and belief, is a Belgium Naamloze Vennootschap (NV), a public limited company organized and existing under the laws of Belgium, with an address of Frans Blocklaan 14, B-2620 Hemiksem, Belgium, a place of business at C-Mine Crib, C-Mine 12, B-3600 Genk, Belgium, and having a domestic representative designated with the United States Patent and Trademark Office as Clifford D. Hyra, Fresh IP PLC, 11710 Plaza America Dr., Suite 2000, Reston, Virginia 20190, chyra@sumbus.com. Upon information and belief, Arkite is not a resident in this judicial district and is not a resident in any judicial district within the United States.

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3. Upon information and belief, Arkite is doing business within the State of New York and within this District, directly and/or by the placing of advertising and marketing of products into the stream of commerce targeting the State of New York and this District, soliciting business within this District and soliciting to make infringing offers for sale of infringing products and derive substantial revenue from the sales of their products and/or services within this District and elsewhere in New York, and including the commission of acts of infringement as hereinafter stated.

## JURISDICTION AND VENUE

4. This action arises under the patent laws of the United States, Title 35 of the United States Code, §§1 et seq. This action also arises under the Federal Declaratory Judgment Act, Title 28 of the United States Code, §§ 2201 and 2202, for a declaration pursuant to the Patent Laws of the United States, 35 U.S.C. §§1 et seq.

5. This Court has jurisdiction in this action under 28 U.S.C. §§1331 and 1338. Venue is proper in this judicial district pursuant to 28 U.S.C. §§1391 and 1400, and including proper pursuant to 28 U.S.C. §1391(c)(3).

### **BACKGROUND ALLEGATIONS**

6. On April 7, 2009, United States Letters Patent No. 7,515,981 was duly and legally issued to the predecessor in interest to LightGuide, as owner by assignment thereof, for an invention entitled "Light Guided Assembly System." A true and correct copy of United States Letters Patent No. 7,515,981 is attached hereto as Exhibit 1 (hereinafter the "981 Patent").

7. On May 23, 2017, United States Letters Patent No. 9,658,614 was duly and legally issued to the predecessor in interest to LightGuide, as owner by assignment thereof, for an invention entitled "Light Guided Assembly System and Method." A true and correct copy of

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United States Letters Patent No. 9,658,614 is attached hereto as Exhibit 2 (hereinafter the "'614 Patent").

8. LightGuide is the owner, by valid assignment, of all right, title, and interest in and to the '981 Patent and the '614 Patent, including the right to seek remedies and relief for past infringement thereof.

9. LightGuide and its predecessors in interest have marked goods of LightGuide which practice the claimed inventions of the '981 and '614 Patents with notice of the '981 and '614 Patents, and have provided Patent Marking Notice pursuant to 35 U.S.C. § 287 regarding its '981 and '614 Patents.

10. LightGuide and its predecessors in interest have provided notice to Arkite of the '981 and '614 Patents. At least by or about July 25, 2019 LightGuide and its predecessors in interest provided written notice to Arkite of the '981 Patent. The filing and Notice of this action and the Complaint in this action also provides actual notice to Defendant Arkite of the '981 and '614 Patents. Defendant Arkite has notice of the '981 and '614 Patents.

11. An actual and justiciable controversy exists between LightGuide and Defendant Arkite concerning whether the actions of Arkite infringe, contributorily infringe and/or induce infringement of the '981 Patent. An actual and justiciable controversy likewise exists between LightGuide and Defendant Arkite concerning whether the actions of Arkite infringe, contributorily infringe and/or induce infringement of the '614 Patent.

12. Arkite has marketed, and upon information and belief offered for sale and/or sold, operator guidance platform systems or virtual assistant for manufacturing systems utilizing what Arkite refers as an "Arkite Vision", "AR virtual reality" system and/or Digital Work Instructions (referred to herein as "Arkite Vision system").

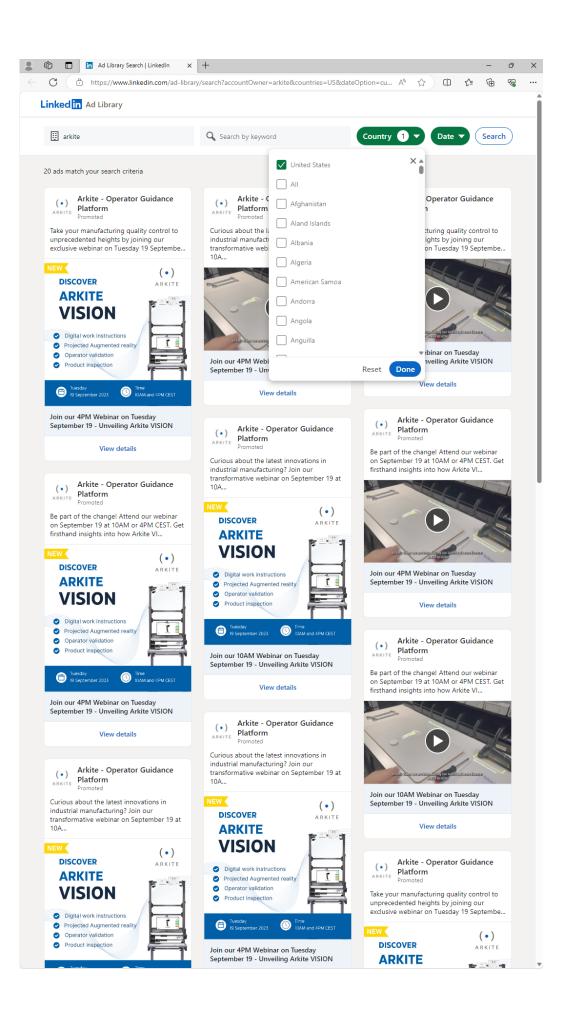
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13. Upon information and belief, Arkite has made a proposal for sale of its Arkite Vision system to at least one entity in this District.

14. Upon information and belief, Arkite has marketed its Arkite Vision system in the United States and offered for sale and/or sold its Arkite Vision system using a variety of marketing and sales materials which explain the operation of the Arkite Vision system. Such marketing and sales materials include explanation of an Arkite Vision system integrated with a manufacturing execution system (MES). The Arkite marketing materials include examples of integration of the Arkite Vision with an MES as an SAP system, an example of which is disclosed in the '614 Patent. (Exhibit 2, Column 14, lines 30-39).

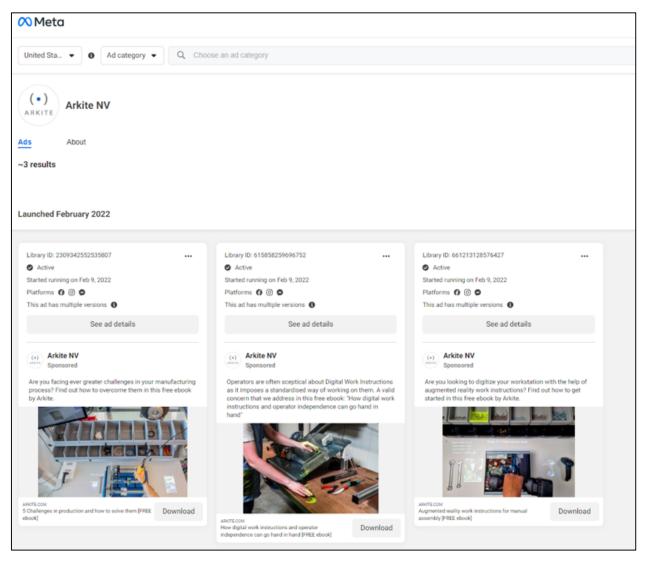
15. Arkite has marketed its Arkite Vision system in the United States, upon information and belief, by LinkedIn advertisements displayed and viewed in the United States, examples of which that were taken from the LinkedIn ad library at https://www.linkedin.com/adlibrary/search?accountOwner=arkite&countries=US&dateOption=custom-daterange&startdate=2023-06-13&enddate=2024-03-14 and displayed in the United States between June 13, 2023 and March 14, 2024 are shown below:

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16. Arkite has marketed its Arkite Vision system in the United States, upon information and belief, by Facebook advertisements displayed and viewed in the United States, examples of which are taken from the Facebook ads library filtered for the United States and shown below:



17. Arkite has marketed its Arkite Vision system in the United States, upon information and belief, by Google advertisements displayed and viewed in the United States, examples of which are taken from the Google ads transparency website https://adstransparency.google.com/?region=US filtered for the United States and shown below:

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Google Ads Transparency Center			
Home > Arkite NV > Ad details			
	advertiser Arkite NV		P Report this ad
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		Discover the advantag of Projected AR in tackling manufacturing challenges.		
		Learn More >		

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18. Arkite has sold its Arkite Vision system in the United States, upon information and

belief, as evidenced by statements on the website g2.com that lists product reviews by verified users, examples that were filtered for the U.S. from https://www.g2.com/products/virtual-assistant-for-

manufacturing/reviews?utf8=%E2%9C%93&filters%5Bcountry%5D%5B%5D=United%20Stat

es&order=g2 default, are shown below:



# "Ive used Arkite to guide our line workers to successfully complete the necessary tasks."

#### What do you like best about Virtual Assistant for Manufacturing?

Its most helpful having a tool which eliminates the need for paper work instructions. Arkite's AR virtual reality maps helps map out the tasks using quick and reliable visual methods. We've found the AR helps reduce errors and improves the overall quality of the products being manufactured.

#### What do you dislike about Virtual Assistant for Manufacturing?

The least helpful is thing is needing actual space within the workstation to display the images for the workers. It would be helpful if there was a method using goggles or glasses rather than a projector. Having a projector means that the line of sight must stay clear for the images to appear.

#### What problems is Virtual Assistant for Manufacturing solving and how is that benefiting you?

The goal in using Arkites AR was to reduce the quality defects on the production line and provide instructions that line workers don't necessarily need to read.

Show Less 🙈



## "Great!"

#### What do you like best about Virtual Assistant for Manufacturing?

Virtual Assistant is amazing! It's always helpful when I need it and I will continue to use it every day.

#### What do you dislike about Virtual Assistant for Manufacturing?

Sometimes it's slow, but the main problem isn't big so it's not very important.

#### What problems is Virtual Assistant for Manufacturing solving and how is that benefiting you?

Everything they do helps me all of the time!

#### Show Less 🙈

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19. Upon information and belief, Arkite has a sales representative that is based in the United States and is and has been actively engaged in selling Arkite Vision systems in the United States, including at least making offers for sale to companies in the U.S. for the purchase and use of Arkite Vision systems in the U.S.

20. Upon information and belief, Arkite has explained and marketed its Arkite Vision system using a video distributed in the United States as YouTube video presentation "Arkite VISON – official video", which explains the structure and manner of operation of the Arkite Vision system. https://www.youtube.com/watch?v=IYtcOQ3bM9k&pp=ygUGYXJraXRl (the "Arkite Official Video").

21. Upon information and belief, the Arkite Official Video explains the structure and operation of the Arkite Vision system as comprising a projector, 3D Sensor, vision sensor, display screen, and an Arkite PC:



Arkite VISION - Official video

22. Upon information and belief, as explained in the Arkite Official Video the work area is first set up, and the operator then identifies a product to be assembled using a bar code reader:



Arkite - Operator Guidance Platform

Instructions are provided to the operator in a variety of ways, including text 23. instructions, images and video projected on the workspace. Parts are highlighted for performing tasks.



Arkite VISION - Official video

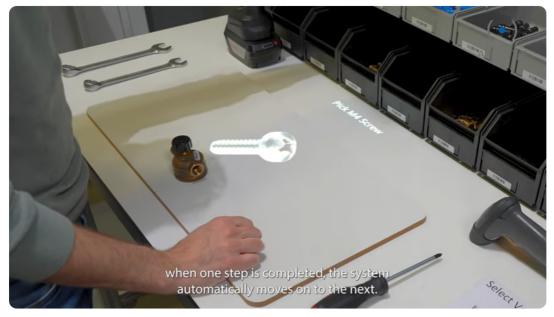
24. The system checks and validates the operator's actions.



## Arkite VISION - Official video

25. When the operator completes a task step correctly the system automatically moves

to the next step:



Arkite VISION - Official video

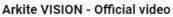


Arkite VISION - Official video

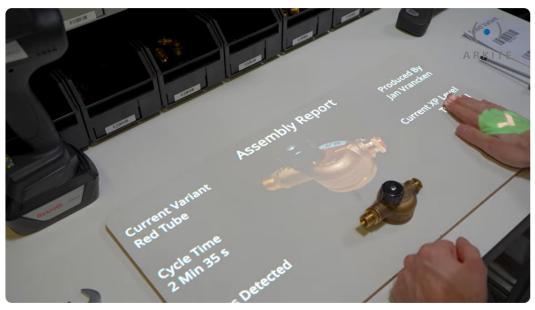
26. Guidance by the system includes illuminating parts of a component to be operated

upon:





27. Upon completion of the full task the operator signals completion by touching a virtual button projected on the workspace with that movement sensed by the system:



Arkite VISION - Official video

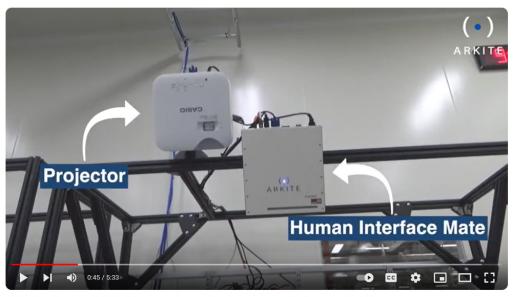
28. Upon information and belief, Arkite has also explained and marketed its Arkite Vision system using a video distributed in the United States as YouTube video presentation "Arkite Platform installed at Barco with SAP integration and smart tooling", which explains Arkite Vision integrated with an MES. https://www.youtube.com/watch?v=oh42FyNRN\_c (the "Arkite Barco Video").

29. SAP is a system disclosed in the '614 Patent as one example of an MES system with which the disclosed embodiments of the patent is to be integrated. (Exhibit 2, column 14, lines 33-35)

30. Upon information and belief, the Arkite Barco Video explains the structure and operation of the Arkite Vision system as comprising a "Human Interface Mate" (or HIM) and a Projector for which guide the worker in assembling a multi-component workpiece at a workstation having a worksurface.



Arkite Platform installed at Barco with complete SAP integration and smart tooling.

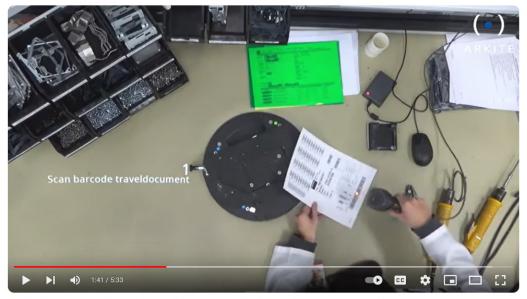


Arkite Platform installed at Barco with complete SAP integration and smart tooling.

31. In the system of the Arkite Barco Video, a "travel document" is provided for each workpiece unit to be assembled. The operator scans his or her badge into the system and scans a bar code on the travel document to input information on the workpiece unit to be assembled.



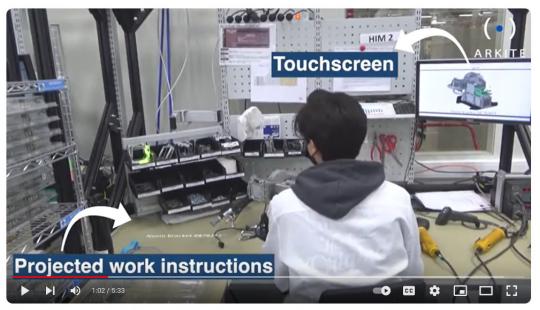
Arkite Platform installed at Barco with complete SAP integration and smart tooling.



Arkite Platform installed at Barco with complete SAP integration and smart tooling.

32. Instructions are projected onto the work surface adjacent the workpiece assembly

area.



Arkite Platform installed at Barco with complete SAP integration and smart tooling.

33. After the system approves the operator and the workpiece assembly instructions the operator is directed by the system to proceed.



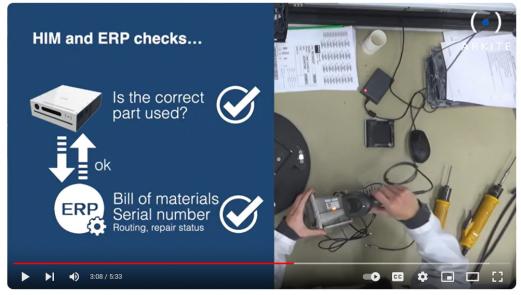
Arkite Platform installed at Barco with complete SAP integration and smart tooling.

34. A "virtual button" is projected and movement detected to signal certain events.



Arkite Platform installed at Barco with complete SAP integration and smart tooling.

35. The assembly is stated to require the operator to pick a number of parts from component part bins and assemble the component parts onto the workpiece. The operator scans the bar code on each part and the system performs a check of the part.



Arkite Platform installed at Barco with complete SAP integration and smart tooling.

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36. Individual parts bins are highlighted for the operator to pick the correct component parts for the next assembly step.



Arkite Platform installed at Barco with complete SAP integration and smart tooling.



Arkite Platform installed at Barco with complete SAP integration and smart tooling.

37. As stated in the Akite Barco Video: "Arkite HIM projects instructions directly on the workbench and highlights the areas where the subsequent action needs to be performed. This

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provides very specific assembly guidance and helps it to eliminate mistakes." (Video time stamp 3:29 to 3:40).

38. Upon information and belief, the Arkite Vision system as disclosed in the Arkite Official Video includes structures that comprise each of the claimed elements of at least Claim 1 of the '981 Patent. The Arkite Vision system, upon information and belief and as disclosed in the Arkite Video, is an operation guide system that is adapted to provide individual indicators to an operator to guide the sequential actions of the operator. The Arkite Vision system includes at least one sensor apparatus, and including scanning apparatus that inputs information to the system, and a controller that receives information and provides at least one command signal as claimed. The Arkite Vision system includes at least one directional light device that is selectively operable to project and target at least one indicating light in response to a command signal from the controller as claimed.

39. Upon information and belief, the Arkite Vision system as disclosed in the Arkite Barco Video includes structures that comprise each of the claimed elements of at least Claim 17 of the '614 Patent. The Arkite Vision system when integrated with a PLC and/or an MES system such as disclosed in the above discussed Arkite HIM system, includes a directional light device operable to project and target an indicating light, a guide system controller, such as shown as the Human Interface Mate above, that includes a plurality of programmed selectable addressed display features and a plurality of programmed positional identifiers with each addressed display feature having a unique pre-programmed individual address identifier within the Arkite guide system controller. The Arkite guide system controller is configured to receive a sequence of one or more input signals from a separate computer system or controller, such as a PLC and/or an MES system, to cause the Arkite Vision system to project visual indicators for a particular guided operation,

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where the Arkite guide system controller is configured to select one or more particular addressed display features from the plurality of addressed display features based on the input signals, and where the input signals control selection of addressed display features based on the addresse identifier for the addressed display feature, with the Arkite guide system controller causing the directional light device to project visual indicators corresponding to an addressed display feature onto one or more physical objects at a location corresponding to a positional identifier based on the input signals. The Arkite guide system controller is operative to receive any sequence of input signals from the separate computer system or controller, such as a PLC and/or an MES system, to dynamically project any sequence of visual indicators corresponding to respective addressed display features based on the input signals corresponding to desired visual indicators with a combination of the sequence of input signals resulting in a creation of a dynamic, real time projection of visual indicators.

## <u>COUNT I</u> Infringement of United States Letters Patent No. 7,515,981

40. Plaintiff LightGuide incorporates and reasserts paragraphs 1-39 herein by reference.

41. Defendant Arkite has, on information and belief, in the past been and still are infringing United States Letters Patent 7,515,981 by making, importing, using, selling, and/or offering for sale in and to the United States products incorporating operator guidance platform systems embodying the patented invention of the '981 Patent. Upon information and belief Defendant Arkite has engaged in acts of direct infringement by themselves and through agents acting in combination.

42. Upon information and belief, with knowledge and/or reckless disregard amounting to knowledge of the infringement by the aforesaid products of the '981 Patent, Defendant Arkite

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has provided operator guidance platform systems to at least one third party for use in infringement of the '981 Patent. Use by third parties of the aforesaid operator guidance platform systems obtained from or through Defendant Arkite, upon information and belief, infringes the '981 Patent. The actions of Defendant Arkite constitutes inducement of infringement of the '981 Patent.

43. Upon information and belief, Defendant Arkite manufactures, imports, sells, and/or offers to sell operator guidance platform systems and/or components thereof with knowledge and/or reckless disregard amounting to knowledge that said operator guidance platform systems and/or components thereof constitute a material part of the invention of the '981 Patent and that are specially made or specially adapted for use in the infringement of the '981 Patent, and said operator guidance platform systems and/or components thereof are not a staple article or commodity of commerce suitable for substantial noninfringing use. The actions of Defendant Arkite constitute contributory infringement of the '981 Patent.

44. Upon information and belief, Defendant Arkite's infringement, contributory infringement, and inducement of infringement has been willful.

45. Despite any statement to the contrary, upon information and belief, Defendant Arkite will continue to infringe, contributorily infringe and induce the infringement of the '981 Patent unless enjoined by this Court.

46. Upon information and belief, Defendant Arkite's infringement, contributory infringement, and inducement of infringement have resulted in damage to Plaintiff LightGuide and will continue to do so unless enjoined by this Court.

47. Plaintiff LightGuide has no adequate remedy at law, and is, therefore, entitled to a permanent injunction prohibiting further infringement by Defendant Arkite.

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48. Plaintiff LightGuide has been damaged by past activities of Defendant Arkite, and is entitled to damages for past infringement, contributory infringement and inducement of infringement.

49. In the alternative, Plaintiff LightGuide is entitled to a declaration from the Court establishing that the actions of Defendant Arkite are infringing, contributorily infringing, and inducing infringement of the '981 Patent.

## <u>COUNT II</u> Infringement of United States Letters Patent No. 9,658,614

50. Plaintiff LightGuide incorporates and reasserts paragraphs 1-49 herein by reference.

51. Defendant Arkite has, on information and belief, in the past been and still are infringing United States Letters Patent 9,658,614 by making, importing, using, selling, and/or offering for sale in and to the United States products incorporating operator guidance platform systems embodying the patented invention of the '614 Patent. Upon information and belief Defendant Arkite has engaged in acts of direct infringement by themselves and through agents acting in combination.

52. Upon information and belief, with knowledge and/or reckless disregard amounting to knowledge of the infringement by the aforesaid products of the '614 Patent, Defendant Arkite has provided operator guidance platform systems to at least one third party for use in infringement of the '614 Patent. Use by third parties of the aforesaid operator guidance platform systems obtained from or through Defendant Arkite, upon information and belief, infringes the '614 Patent. The actions of Defendant Arkite constitutes inducement of infringement of the '614 Patent.

53. Upon information and belief, Defendant Arkite manufactures, imports, sells, and/or offers to sell operator guidance platform systems and/or components thereof with knowledge

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and/or reckless disregard amounting to knowledge that said operator guidance platform systems and/or components thereof constitute a material part of the invention of the '614 Patent and that are specially made or specially adapted for use in the infringement of the '614 Patent, and said operator guidance platform systems and/or components thereof are not a staple article or commodity of commerce suitable for substantial noninfringing use. The actions of Defendant Arkite constitute contributory infringement of the '614 Patent.

54. Upon information and belief, Defendant Arkite's infringement, contributory infringement, and inducement of infringement has been willful.

55. Despite any statement to the contrary, upon information and belief, Defendant Arkite will continue to infringe, contributorily infringe and induce the infringement of the '614 Patent unless enjoined by this Court.

56. Upon information and belief, Defendant Arkite's infringement, contributory infringement, and inducement of infringement have resulted in damage to Plaintiff LightGuide and will continue to do so unless enjoined by this Court.

57. Plaintiff LightGuide has no adequate remedy at law, and is, therefore, entitled to a permanent injunction prohibiting further infringement by Defendant Arkite.

58. Plaintiff LightGuide has been damaged by past activities of Defendant Arkite, and is entitled to damages for past infringement, contributory infringement and inducement of infringement.

59. In the alternative, Plaintiff LightGuide is entitled to a declaration from the Court establishing that the actions of Defendant Arkite are infringing, contributorily infringing, and inducing infringement of the '614 Patent.

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WHEREFORE, Plaintiff LightGuide demands that judgment be entered in its favor against Defendant Arkite, as follows:

A. Entering an order determining and/or declaring that Defendant Arkite infringes, contributorily infringes and induces infringement of the '981 and '614 Patents.

B. Permanently enjoining Defendant Arkite, its officers, agents, servants, employees, attorneys, and all those persons in privity or in active concert or participation with them, and each of them, from further manufacture, importation, sale, offer for sale, and/or use of an apparatus which infringes, contributorily infringes, or induces infringement of the '981 and/or '614 Patents.

C. Permanently enjoining Defendant Arkite, its officers, agents, servants, employees, attorneys, and all those persons in privity or in active concert or participation with it, and each of them, from further acts of infringement of the '981 and/or '614 Patents.

D. Ordering an accounting.

E. Awarding damages adequate to compensate Plaintiff for Defendant's infringement, contributory infringement, and inducement of infringement of the 981 and/or '614 Patents.

F. Increasing the damages up to three times the amount found or assessed for Defendant's willful acts of infringement.

G. Awarding prejudgment interest and costs.

H. Finding this to be an exceptional case and awarding reasonable attorney's fees to Plaintiff.

I. Such other and further relief as is necessary and appropriate.

## JURY DEMAND

Plaintiff hereby demands a trial by jury of all issues triable by jury in this action

Respectfully submitted,

Dated: April 8, 2024 /s/ Denis J. Sullivan Denis J. Sullivan (NDNY No. 512997) BARCLAY DAMON LLP Barlcay Damon Tower 125 East Jefferson Street Syracuse, New York 13202 Telephone: (315) 425-2700 DSullivan@barclaydamon.com Karl T. Ondersma (Pro Hac Vice to be Filed) Terence J. Linn (Pro Hac Vice to be Filed) GARDNER, LINN, BURKHART & ONDERSMA LLP 2900 Charlevoix Drive SE, Suite 300 Grand Rapids, Michigan 49546 Telephone: (616) 975-5500 linn@gardner-linn.com ondersma@gardner-linn.com Attorneys for Plaintiff LightGuide, Inc.