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Attorneys for Plaintiff,
THROOP, LLC

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UNITED STATES DISTRICT COURT

CENTRAL DISTRICT OF CALIFORNIA

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WESTERN DIVISION

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THROOP, LLC, a California limited
liability company,

Case No. 2:19-cv-10604-AB-MRW
Hon. Andre Birotte Jr.

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Plaintiff,

**FIRST AMENDED COMPLAINT
FOR PATENT INFRINGEMENT**

v.

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DEMAND FOR JURY TRIAL

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MICROSOFT CORPORATION, a
Washington corporation,

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Defendant.

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FIRST AMENDED COMPLAINT

1   Plaintiff Throop, LLC ("Throop" or "Plaintiff") hereby alleges for its

2 Complaint for Patent Infringement against Microsoft Corporation ("Microsoft" or

3 "Defendant") the following:

I.   NATURE OF THE ACTION

5   1.   This is an action for patent infringement of United States Patent Nos.

6 7,035,897 (the "'897 Patent") and 9,479,726 (the "'726 Patent") (collectively, the

7 "Patents-in-Suit") arising under the Patent Laws of the United States, 35 U.S.C. § 1,

8 et seq., seeking damages and other relief under 35 U.S.C. § 281, et seq.

II.   THE PARTIES

10   2.   Throop is a California limited liability company having a principal

11 place of business at 3580 Wilshire Blvd., Ste. 1460, Los Angeles, CA 90010.

12   3.   Defendant Microsoft Corporation is a corporation organized under the

13 laws of Washington with its principal place of business located at One Microsoft

14 Way, Redmond, WA 98052. Microsoft's registered agent for Service of Process is

15 located at Corporation Service Company, d/b/a CSC – Lawyering Incorporating

16 Service, 2710 Gateway Oaks Drive, Suite 150N, Sacramento, CA 95833.

III.   JURISDICTION AND VENUE

18   4.   This is an action for patent infringement arising under the provisions of

19 the Patent Laws of the United States of America, Title 35, United States Code.

20   5.   This Court has subject matter jurisdiction over Throop's claims under

21 28 U.S.C. §§ 1331 and 1338(a).

22   6.   This Court has personal jurisdiction over Defendant in this action

23 because Defendant has committed acts within the Central District of California

24 giving rise to this action and has established minimum contacts with this forum such

25 that the exercise of jurisdiction over the Defendant would not offend traditional

26 notions of fair play and substantial justice. The Defendant, directly and through

27 subsidiaries or intermediaries, has committed and continues to commit acts of

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FIRST AMENDED COMPLAINT

1 infringement in this District by, among other things, offering to sell and selling

2 products and/or services that infringe the asserted patents.

3   7.   Venue is proper in this judicial district pursuant to 28 U.S.C. § 1391(b),

4 (c) and/or 28 U.S.C. § 1400(b). Defendant transacts business within this District

5 and offers for sale in this District products that infringe the Patents-in-Suit.

6 Defendant is registered to do business in California. Defendant has a regular and

7 established place of business in Central District of California. For example,

8 Defendant has offices located at 13031 W Jefferson Blvd., #200, Los Angeles, CA

9 90094.

10   **IV.   THROOP'S PATENTS-IN-SUIT**

11   8.   On April 25, 2006, the '897 Patent, entitled "Wireless Augmented

12 Reality Communication System," was duly and legally issued by the United States

13 Patent and Trademark Office. A true and correct copy of the '897 Patent is attached

14 as Exhibit A.

15   9.   On October 25, 2016, the '726 Patent, entitled "Wireless Augmented

16 Reality Communication System," was duly and legally issued by the United States

17 Patent and Trademark Office. A true and correct copy of the '726 Patent is attached

18 as Exhibit B.

19   10.   The inventors listed on the Patents-in-Suit were all engineers who

20 worked at NASA's Jet Propulsion Laboratory. Founded by Caltech faculty, NASA's

21 Jet Propulsion Laboratory is the leading U.S. center for the robotic exploration of

22 the solar system.

23   11.   The '897 Patent has been cited by twenty-four issued United States

24 patents as relevant prior art.

25   12.   Throop is the owner of the Patents-in-Suit asserted in this action and

26 has the exclusive right to sue and collect remedies for past, present, and future

27 infringement of the Patents-in-Suit.

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FIRST AMENDED COMPLAINT

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V.   ACCUSED PRODUCTS AND/OR SERVICES

2   13.   Defendant manufactures, provides, uses, sells, offers for sale, imports,

3 and/or distributes infringing services for wearable devices, including, for example,

4 Microsoft HoloLens (collectively, "Accused Products and/or Services").

5   14.   The Accused Products and/or Services offer the benefits of Plaintiff's

6 technology by, for example, incorporating a highly integrated radio communication

7 system allowing for true two-way multimedia access via a wearable device.

8   15.   Defendant has had knowledge of the '726 Patent and its infringement

9 since at least the filing of the Original Complaint in this action, or shortly thereafter,

10 including by way of this lawsuit. Defendant has had notice and/or knowledge of the

11 '897 Patent and its infringement since at least December 2010, or shortly thereafter,

12 when Microsoft Corporation cited the '897 Patent on an Information Disclosure

13 Statement on its own patent application (Application No. 12/969,148) that led to

14 issued U.S. Patent No. 8,898,310.

15   **COUNT I: INFRINGEMENT OF U.S. PATENT NO. 7,035,897**

16   16.   Throop reasserts and incorporates herein by reference the allegations of

17 all preceding paragraphs of this Complaint as if fully set forth herein.

18   17.   Defendant has infringed and continue to infringe at least claim 1 and

19 one or more of its dependents of the '897 Patent under 35 U.S.C. § 271(a), literally

20 or under the doctrine of equivalents, by making, using, selling, and/or offering for

21 sale in the United States, and/or importing into the United States, the Accused

22 Products and/or Services.

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FIRST AMENDED COMPLAINT

18.   For example, the Accused Products and/or Services meet all of the claim limitations of claim 1 of the '897 Patent, set forth below with claim language in italics. To the extent the preamble is limiting, the Accused Products and/or Services include *[a] mobile access unit for use in a localized communications system.*

https://www.microsoft.com/en-us/hololens#
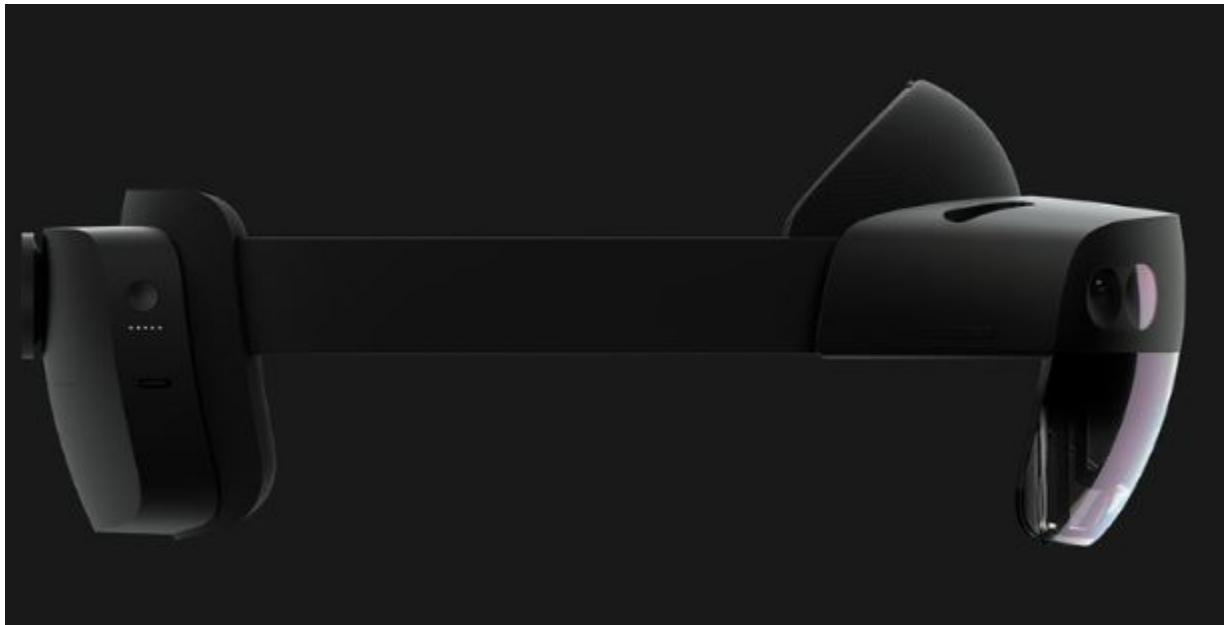
19.   The Accused Products and/or Services include *a video input configured to receive real-time video information; a video output configured to provide real-time video information; a wearable display connected to the video output; a codec connected to the video input and video output; and a transceiver.*

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https://www.microsoft.com/en-us/hololens#

Display	
Optics	See-through holographic lenses (waveguides)
Resolution	2k 3:2 light engines
Holographic density	>2.5k radiants (light points per radian)
Eye-based rendering	Display optimization for 3D eye position

https://www.microsoft.com/en-us/hololens/hardware

20.   The Accused Products and/or Services include *a transmitter connected to the codec that is configured to transmit a data stream provided by the codec over an upstream wireless communication link; and a receiver connected to the codec that is configured to receive a data stream transmitted over a downstream wireless communication link, which includes encoded real-time video.*

Dynamics 365 Remote Assist

Work together from anywhere with the mixed reality tool for instant collaboration.

Learn more >

Dynamics 365 Guides

Help employees learn by doing with step-by-step instructions.

Learn more >

Dynamics 365 Layout

Design spaces and walk others through them at real-world scale.

Learn more >

https://www.microsoft.com/en-us/hololens/apps

WiFi
802.11ac 2x2

Bluetooth
5.0

USB

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FIRST AMENDED COMPLAINT

USB Type-C

https://www.microsoft.com/en-us/hololens/hardware

21.	The Accused Products and/or Services include *wherein the codec is configured to: encode real-time video information received from the video input; and multiplex the encoded real-time video with other data to generate the data stream provided by the codec to the transmitter; and wherein the codec is also configured to: demultiplex the encoded real-time video from the data stream provided to the codec by the receiver; and decode the encoded real-time video information and provide the decoded real-time video information to the video output.*

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Microsoft HoloLens: Skype

291,598 views • Feb 29, 2016

985   76   SHARE   SAVE

Microsoft HoloLens
116K subscribers

SUBSCRIBE

Educational, instructional, and social moments are more effective when you can show rather than tell. Skype for HoloLens lets your contacts see what you see, hear what you hear, and draw on their screens to place holograms over physical objects in your view. Get an idea of how holograms can help people communicate in new ways.

https://www.youtube.com/watch?v=4QiGYtd3qNI

22.   Defendant has committed acts of infringement without license or authorization. Defendant knew or should have known that its actions would cause direct and indirect infringement of the '897 Patent. On information and belief, Defendant acted with objective recklessness by proceeding despite an objective high likelihood that its actions constituted infringement of a valid patent.

23.   Defendant is also liable under 35 U.S.C. § 271(b) for actively inducing infringement and continuing to actively induce infringement. Defendant actively induces and continues to induce its customers, distributors, end-users, vendors

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including customer-support and/or manufacturers to infringe the '897 Patent. On

information and belief, Defendant possessed a specific intent to induce

infringement, and in fact did induce infringement, by engaging in affirmative acts

such as by selling and causing the Accused Products and/or Services to be

manufactured, by providing user guides, installation or instruction manuals, and

other training materials, by advertising and solicitation and otherwise providing

sales-related materials, and by instructing and/or demonstrating to customers,

distributers, end-users, vendors including customer-support and/or manufacturers

the normal operation of the Accused Products and/or Services that infringe the '897

Patent. Defendant is aware and/or willfully blind that these affirmative acts infringe

and/or would induce infringement of the '897 Patent, of which it had knowledge.

24.   Defendant is also liable under 35 U.S.C. § 271(c) for contributing to

and continuing to contribute to the infringement of the '897 Patent by, among other

things, providing seamless external storage capability that operates as internal

storage in its Accused Products and/or Services and by encouraging, at a minimum,

customers, distributors, end-users, vendors including customer-support and/or

manufacturers in this District and elsewhere, to infringe the '897 Patent. By

importing, exporting, manufacturing, distributing, selling, and/or providing the

Accused Products and/or Services for their intended use to customers, distributors,

end-users, vendors including customer-support and/or manufacturers, Defendant

has, in the past and continue to contribute to the infringement of one or more claims

of the '897 Patent. The Accused Products and/or Services are material to the

inventions claimed in the '897 Patent, has no substantial non-infringing uses, and

are known by Defendant (on information and belief) to be especially made or

especially adapted for use in infringing the '897 Patent, and which are otherwise not

staple articles of commerce suitable for substantial non-infringing use. Defendant

are aware and/or willfully blind that these affirmative acts infringe and/or constitute

contributory infringement of the '897 Patent, of which it had knowledge.

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25.   Defendant is liable for indirect infringement, i.e., both inducement and contributory infringement, based on the direct infringement that is the result of activities performed by customers, distributors, end-users, vendors including customer-support and/or manufacturers who use all elements or perform all steps of one or more claims of the '897 Patent. For example, end users of Defendant's Accused Products and/or Services infringe, either directly or under the doctrine of equivalents, one or more claims of the '897 Patent (*e.g.*, claim 1 and one or more of its dependents). At a minimum, Defendant is liable for the indirect infringement of claim 1 and one or more of its dependents of the '897 Patent.

26.   Plaintiff has been damaged as a result of Defendant's infringing conduct. Defendant is, thus, liable to Plaintiff in an amount that adequately compensates Plaintiff for Defendant's infringement, which, by law, cannot be less than a reasonable royalty, together with interest and costs as fixed by this Court under 35 U.S.C. § 284.

COUNT II: INFRINGEMENT OF U.S. PATENT NO. 9,479,726

27.   Throop reasserts and incorporates herein by reference the allegations of all preceding paragraphs of this Complaint as if fully set forth herein.

28.   Defendant has infringed and continues to infringe at least claims 1, 25 and one or more of its dependents of the '726 Patent under 35 U.S.C. § 271(a), literally or under the doctrine of equivalents, by making, using, selling, and/or offering for sale in the United States, and/or importing into the United States, the Accused Products and/or Services.

29.   For example, the Accused Products and/or Services meet all of the claim limitations of claim 1 of the '726 Patent, set forth below with claim language in italics. To the extent the preamble is limiting, the Accused Products and/or Services include *[a] communication system comprising.*

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30.   The Accused Products and/or Services include *a portable access unit comprising a wearable device, a touchpad and a transceiver.*

https://www.microsoft.com/en-us/hololens/hardware

31.   The Accused Products and/or Services include *the wearable device comprising a transparent display.*

https://www.microsoft.com/en-us/hololens/hardware

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32.   The Accused Products and/or Services include *the touchpad connected to the wearable device and configured to receive user commands.*

Pair Bluetooth devices

Pair a Bluetooth mouse and keyboard with HoloLens, then use them to interact with holograms and to type anywhere you'd use the holographic keyboard.

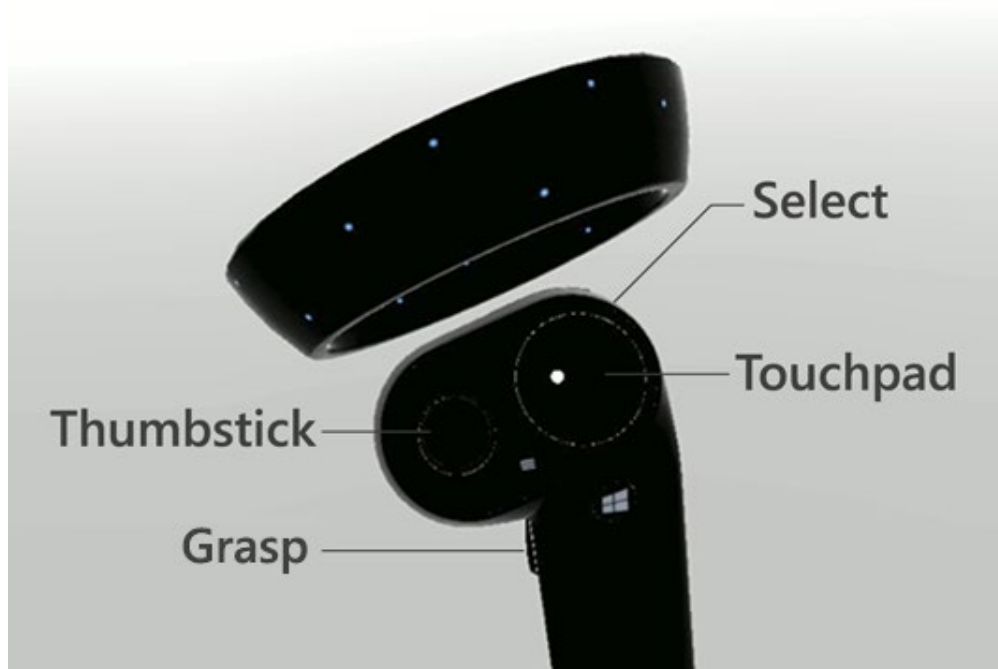Classes of Bluetooth devices supported by HoloLens 2:

- Mouse
- Keyboard
- Bluetooth audio output (A2DP) devices

Classes of Bluetooth devices supported by HoloLens (1st gen):

- Mouse
- Keyboard
- HoloLens (1st gen) clicker

https://docs.microsoft.com/en-us/hololens/hololens-connect-devices

https://docs.microsoft.com/en-us/windows/mixed-reality/mixed-reality-213

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FIRST AMENDED COMPLAINT

33.   The Accused Products and/or Services include *the transceiver capable of wirelessly connecting to a general purpose node for establishing a data link with one or more media devices connected to the general purpose node.*

Untethered

Move freely, with no wires or external packs to get in your way. The HoloLens 2 headset is a self-contained computer with Wi-Fi connectivity, which means that everything you need goes with you while you work.

https://www.microsoft.com/en-us/hololens/hardware

34.   The Accused Products and/or Services include *wherein subsequent to connecting to the general purpose node, the portable access unit is configured to display on the transparent display a list of one or more media devices that are connected to the general purpose node.*

Pair the clicker

Applies to HoloLens (1st gen) only.

1. Use the bloom gesture to go to **Start**, then select **Settings**.

2. Select **Devices** and make sure that Bluetooth is on.

3. Use the tip of a pen to press and hold the clicker's pairing button until the status light blinks white. Make sure to hold the button down until the light starts blinking. Where's the pairing button?

4. On the pairing screen, select **Clicker** > **Pair**.

https://docs.microsoft.com/en-us/hololens/hololens-connect-devices

FIRST AMENDED COMPLAINT

35.   The Accused Products and/or Services include *wherein the portable access unit is configured to receive, at the touchpad, a first user command for selecting a first media device from the list to establish a data link with the first media device via the general purpose node.*

Connect to Miracast

Use Miracast by opening the **Start** menu and selecting the display icon or saying "Connect" while gazing at the **Start** menu. Choose an available device from the list that appears and complete pairing to begin projection.

https://docs.microsoft.com/en-us/hololens/hololens-connect-devices

36.   The Accused Products and/or Services include *wherein subsequent to establishing the data link with the first media device, the portable access unit is configured to display a multimedia content on the transparent display.*

Instinctual

Touch, grasp, and move holograms in ways that feel natural—they respond a lot like real objects. Log in to HoloLens 2 instantly and securely using just your eyes with Windows Hello. And voice commands work even in noisy industrial environments through smart microphones and natural language speech processing.

Seattle
41°

https://www.microsoft.com/en-us/hololens/hardware
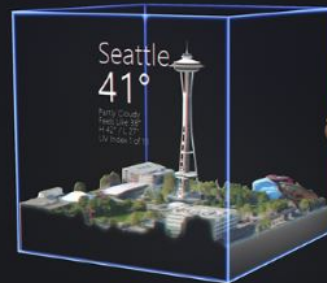
37.   For example, the Accused Products and/or Services meet all of the claim limitations of claim 25 of the '726 Patent, set forth below with claim language in italics. To the extent the preamble is limiting, the Accused Products and/or Services include *[a] method comprising.*

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FIRST AMENDED COMPLAINT

1   38.   The Accused Products and/or Services include *providing a portable*

2 *access unit comprising a wearable device, a touchpad and a transceiver, the*

3 *wearable device comprising a transparent display.*

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12 https://docs.microsoft.com/en-us/hololens/hololens1-hardware

13   39.   The Accused Products and/or Services include *wirelessly connecting,*

14 *by the transceiver, to a general purpose node for establishing a data link between*

15 *the portable access unit and one or more media devices connected to the general*

16 *purpose node.*

17

18 ## Before you start

19 Before you get started, make sure you have the following available:

20 **A Wi-Fi connection**. You'll need to connect your HoloLens to a Wi-Fi network to

21 set it up. The first time you connect, you'll need an open or password-protected

22 network that doesn't require navigating to a website or using certificates to

23 connect. Learn more about the websites that HoloLens uses.

24 https://docs.microsoft.com/en-us/hololens/hololens1-start

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FIRST AMENDED COMPLAINT

40.   The Accused Products and/or Services include *subsequent to connecting to the general purpose node, displaying, on the transparent display, a list of one or more media devices that are connected to the general purpose node.*

Clicker hardware and pairing

The HoloLens (1st gen) clicker has a finger loop to make it easier to hold, and an indicator light.

https://docs.microsoft.com/en-us/hololens/hololens1-clicker

41.   The Accused Products and/or Services include *receiving, via the touchpad, a first user command for selecting a first media device from the list to establish a data link between the portable access unit and the first media device via the general purpose node.*

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https://docs.microsoft.com/en-us/windows/mixed-reality/hardware-accessories

https://docs.microsoft.com/en-us/windows/mixed-reality/mixed-reality-213

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FIRST AMENDED COMPLAINT

1   42.   The Accused Products and/or Services include *subsequent to*

2 *establishing the data link with the first media device, displaying a multimedia*

3 *content on the transparent display.*

4

5 ## Viewing 3D models on HoloLens

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7 ### Open an FBX file from Microsoft Edge

8 FBX files can be opened directly from a website using Microsoft Edge on
HoloLens.

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10   1. In Microsoft Edge, navigate to the webpage containing the FBX file you
       want to view.

11   2. Select the file to download it.

12   3. When the download is complete, select the **Open** button in Microsoft Edge
       to open the file in 3D Viewer Beta.

13

14 https://docs.microsoft.com/en-us/hololens/holographic-3d-viewer-beta

15   43.   Defendant has committed acts of infringement without license or

16 authorization. Defendant knew or should have known that its actions would cause

17 direct and indirect infringement of the '726 Patent. On information and belief,

18 Defendant acted with objective recklessness by proceeding despite an objective high

19 likelihood that its actions constituted infringement of a valid patent.

20   44.   Defendant is also liable under 35 U.S.C. § 271(b) for actively inducing

21 infringement and continuing to actively induce infringement. Defendant actively

22 induces and continues to induce its customers, distributors, end-users, vendors

23 including customer-support and/or manufacturers to infringe the '726 Patent. On

24 information and belief, Defendant possessed a specific intent to induce

25 infringement, and in fact did induce infringement, by engaging in affirmative acts

26 such as by selling and causing the Accused Products and/or Services to be

27 manufactured, by providing user guides, installation or instruction manuals, and

28 other training materials, by advertising and solicitation and otherwise providing

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FIRST AMENDED COMPLAINT

1   sales-related materials, and by instructing and/or demonstrating to customers,

2   distributers, end-users, vendors including customer-support and/or manufacturers

3   the normal operation of the Accused Products and/or Services that infringe the '897

4   Patent. Defendant is aware and/or willfully blind that these affirmative acts infringe

5   and/or would induce infringement of the '726 Patent, of which it had knowledge.

6   45.   Defendant is also liable under 35 U.S.C. § 271(c) for contributing to

7   and continuing to contribute to the infringement of the '726 Patent by, among other

8   things, providing seamless external storage capability that operates as internal

9   storage in its Accused Products and/or Services and by encouraging, at a minimum,

10 customers, distributors, end-users, vendors including customer-support and/or

11 manufacturers in this District and elsewhere, to infringe the '726 Patent. By

12 importing, exporting, manufacturing, distributing, selling, and/or providing the

13 Accused Products and/or Services for their intended use to customers, distributors,

14 end-users, vendors including customer-support and/or manufacturers, Defendant

15 has, in the past and continue to contribute to the infringement of one or more claims

16 of the '726 Patent. The Accused Products and/or Services are material to the

17 inventions claimed in the '726 Patent, has no substantial non-infringing uses, and

18 are known by Defendant (on information and belief) to be especially made or

19 especially adapted for use in infringing the '726 Patent, and which are otherwise not

20 staple articles of commerce suitable for substantial non-infringing use. Defendant is

21 aware and/or willfully blind that these affirmative acts infringe and/or constitute

22 contributory infringement of the '726 Patent, of which it had knowledge.

23   46.   Defendant is liable for indirect infringement, i.e., both inducement and

24 contributory infringement, based on the direct infringement that is the result of

25 activities performed by customers, distributors, end-users, vendors including

26 customer-support and/or manufacturers who use all elements or perform all steps of

27 one or more claims of the '726 Patent. For example, end users of Defendant's

28 Accused Products and/or Services infringe, either directly or under the doctrine of

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FIRST AMENDED COMPLAINT

1   equivalents, one or more claims of the '726 Patent (e.g., claims 1, 25 and one or

2   more of its dependents). At a minimum, Defendant is liable for the indirect

3   infringement of claims 1, 25 and one or more of its dependents of the '726 Patent.

4   47.   Plaintiff has been damaged as a result of Defendant's infringing

5   conduct. Defendant is, thus, liable to Plaintiff in an amount that adequately

6   compensates Plaintiff for Defendant's infringement, which, by law, cannot be less

7   than a reasonable royalty, together with interest and costs as fixed by this Court

8   under 35 U.S.C. § 284.

9   **PRAYER FOR RELIEF**

10   WHEREFORE, Plaintiff respectfully requests the following relief:

11   a)   A judgment that Defendant has infringed the Patents-in-Suit;

12   b)   An award of damages adequate to compensate for Defendant's

13   infringement of the Patents-in-Suit, and in no event less than a reasonable royalty

14   for Defendant's acts of infringement, including all pre-judgment and post-judgment

15   interest at the maximum rate permitted by law;

16   c)   A declaration that this case is exceptional under 35 U.S.C. § 285; and

17   d)   An award of Plaintiff's costs and attorney's fees under 35 U.S.C. § 285

18   and other applicable law; and any other remedy to which Plaintiff may be entitled.

19

20   Dated: February 24, 2020   **ONE LLP**

21

22   By: /s/ Nathaniel L. Dilger
                                          Nathaniel L. Dilger
23   John E. Lord

24   *Attorneys for Plaintiff,*
25   Throop, LLC

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FIRST AMENDED COMPLAINT

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DEMAND FOR JURY TRIAL

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Throop demands trial by jury on all claims and issues so triable.

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4   Dated: February 24, 2020   **ONE LLP**

5

6   By: /s/ Nathaniel L. Dilger
                                     Nathaniel L. Dilger

7   John E. Lord

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                                     Attorneys for Plaintiff,

9   Throop, LLC

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