

**IN THE UNITED STATES DISTRICT COURT  
FOR THE WESTERN DISTRICT OF TEXAS  
WACO DIVISION**

**IRON BIRD LLC.,**

Plaintiff,

v.

**YUNEEC USA INC.,**

Defendant.

Civil Action No.: 6:23-cv-00161

**TRIAL BY JURY DEMANDED**

**COMPLAINT FOR INFRINGEMENT OF PATENT**

Now comes, Plaintiff, Iron Bird LLC (“Plaintiff” or “Iron Bird”), by and through undersigned counsel, and respectfully alleges, states, and prays as follows:

**NATURE OF THE ACTION**

1. This is an action for patent infringement under the Patent Laws of the United States, Title 35 United States Code (“U.S.C.”) to prevent Defendant Yuneec USA Inc. (hereinafter “Defendant”), from infringing and profiting, in an illegal and unauthorized manner, and without authorization and/or consent from Plaintiff from U.S. Patent No. US 7,400,950 (the “950 Patent” or the “Patent-in-Suit”), which is attached hereto as Exhibit A and incorporated herein by reference, and pursuant to 35 U.S.C. §271, and to recover damages, attorney’s fees, and costs.

**THE PARTIES**

2. Plaintiff is a Texas limited liability company with its principal place of business at 261 West 35<sup>th</sup> Street, New York, NY 10001.

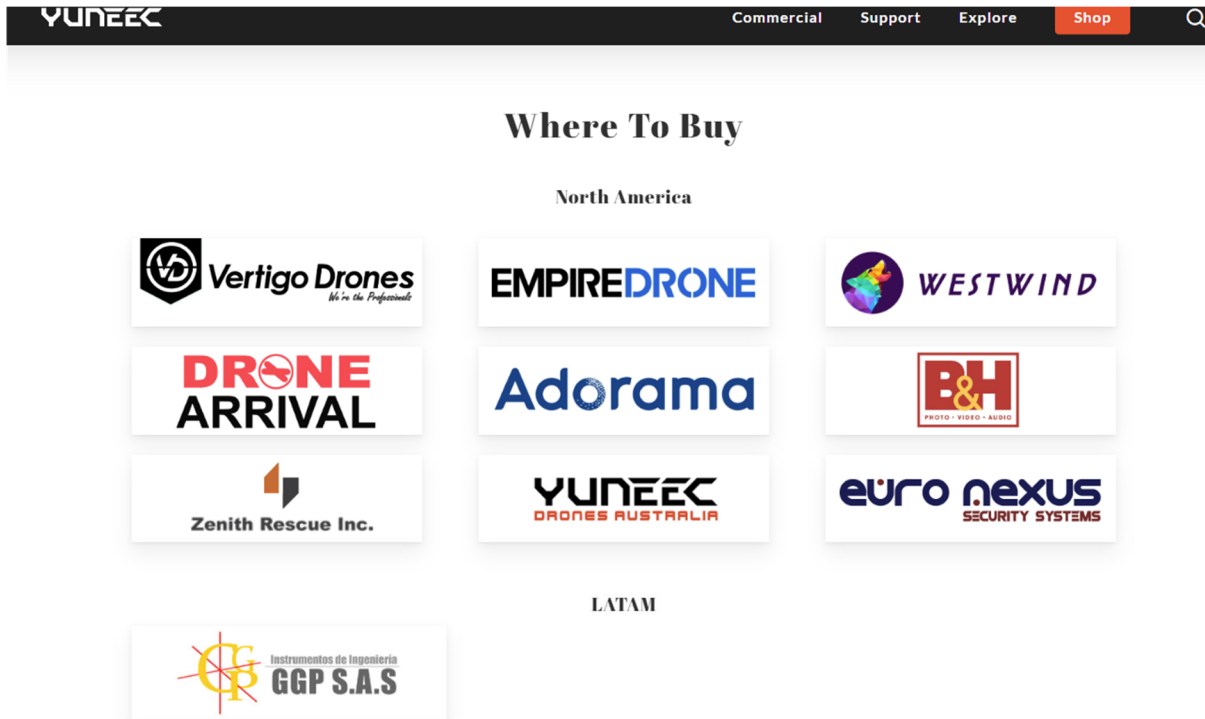
3. Upon information and belief, Defendant is a corporation organized under the laws of Delaware, having a principal place of business at 2275 Sampson Avenue – Suite 200, Corona, California 92879. On information and belief, Defendant conducts business, either directly or

through its agents, on an ongoing basis in this judicial district and elsewhere in the United States. Upon information and belief, Defendant may be served with process c/o 17127 Carroll Lake, Spring, TX 77379.

4. Plaintiff is further informed and believes, and on that basis alleges, that Defendant operates the website [us.yuneec.com](http://us.yuneec.com), which is in the business of providing aerial vehicle products, amongst other things. Defendant derives a portion of its revenue from sales and distribution via electronic transactions conducted on and using at least, but not limited to, its Internet website located at [www.us.yuneec.com](http://www.us.yuneec.com), and its incorporated and/or related systems (collectively the “Yuneec Website”). Plaintiff is informed and believes, and on that basis alleges, that, at all times relevant hereto, Defendant has done and continues to do business in this judicial district, including, but not limited to, providing products/services to customers located in this judicial district by way of the Yuneec Website. Defendant owns Yuneec International, which operates the website [www.us.yuneec.com](http://www.us.yuneec.com), which is in the business of providing aerial vehicle products, amongst other things.

5. In addition to Defendants’ own online store at [www.us.yuneec.com](http://www.us.yuneec.com), Defendants have sold their drone and drone-related products within this judicial district via the following means:

6. Defendants have a wide variety of resellers in North America, selling Defendants’ drones and drone related products within this judicial district all of which are available to and accessed by users, customers, and potential customers.



7. Defendants directly and through subsidiaries or intermediaries (including distributors, retailers, and others), have purposefully and voluntarily placed their infringing products into this district and into the stream of commerce with the intention and expectation that the infringing products will be purchased for use in this district. Defendants have imported, offered for sale and sold, and continue to import, offer for sale and sell, infringing products for delivery and use in this district.

### **JURISDICTION AND VENUE**

8. This is an action for patent infringement in violation of the Patent Act of the United States, 35 U.S.C. §§1 *et seq.*

9. The Court has subject matter jurisdiction over this action pursuant to 28 U.S.C. §§1331 and 1338(a).

10. This Court has personal jurisdiction over Defendant by virtue of its systematic and continuous contacts with this jurisdiction and its incorporation in this District, as well as because of the injury to Plaintiff, and the cause of action Plaintiff has risen in this District, as alleged herein.

11. Defendant is subject to this Court's specific and general personal jurisdiction pursuant to its substantial business in this forum, including: (i) at least a portion of the infringements alleged herein; (ii) regularly doing or soliciting business, engaging in other persistent courses of conduct, and/or deriving substantial revenue from goods and services provided to individuals in this forum state and in this judicial District; and (iii) being incorporated in this District.

12. Venue is proper in this judicial district pursuant to 28 U.S.C. §1400(b) because Defendant resides in this District under the Supreme Court's opinion in *TC Heartland v. Kraft Foods Group Brands LLC*, 137 S. Ct. 1514 (2017) through incorporation in this District. Yuneec USA committed acts of infringement within this district as detailed throughout this complaint. Yuneec USA has a regular and established place of business through its authorized resellers, and Yuneec's online store selling directly into this district, all of which are shown on Yuneec's website.

### **FACTUAL ALLEGATIONS**

13. On July 15, 2008, the United States Patent and Trademark Office ("USPTO") duly and legally issued the '950 Patent, entitled "Optical sensing system and system for stabilizing machine-controllable vehicles" after a full and fair examination. The '950 Patent is attached hereto as Exhibit A and incorporated herein as if fully rewritten. By assignment, duly recorded with the USPTO, Iron Bird LLC owns all substantial rights to the '950 patent, including the right to sue and recover damages for infringement.

14. Plaintiff is presently the owner of the ‘950 Patent, having received all right, title and interest in and to the ‘950 Patent from the previous assignee of record. Plaintiff possesses all rights of recovery under the ‘950 Patent, including the exclusive right to recover for past infringement.

15. The ‘950 Patent generally “relates to an apparatus and a process for measuring motion-related measurands like velocity and/or position of a machine-controllable vehicle in at least one of its six degrees of freedom, wherein the term vehicle may include airborne objects, using optical sensor technology; furthermore, especially a use as a stabilising system for controlling unmanned or manned airborne objects.” Ex. A, 1:4-10. Such stabilising is especially important for remote controlled helicopters. Ex. A, 1:13-14. The object of the invention is to measure horizontal movements with respect to ground, in order to be able to stabilise them. Ex. A, 2:6-8. Figure 1 of the ‘950 patent illustrates the concept for measuring and stabilising the horizontal movements of a helicopter. *Id.* at Figure 1, 10:62-63.

16. In previous remote controlled helicopter systems, used for hobby purposes or aerial photography purposes, possess as stabilising device merely a piezoelectric rotation sensor for stabilising motions about the yaw axis by means of the tail rotor, but not about the other axes. Ex. A, 1:24-28. The other documents referred to in the ‘950 Patent do not contain any evaluation of an optical image shift and/or relate only to measurement or navigation, but do not contain any open or closed loop control. Ex. A, 3:64-67.

17. One previous method that was used to overcome this problem in a conventional remote controlled helicopter system contained stabilising systems, in which by means of several light sensors the direction of incoming light is measured and evaluated, in order to obtain an information about and to control the inclination, which may also include detecting approaching

objects. Ex. A, 1:38-43. In order to control for example, the flight path of a helicopter, to perform a stationary hovering, it is necessary to first control the inclination (i.e. roll and pitch angle), and secondly the resulting velocity, both by driving the rotor blade controls. Ex. A, 1:50-54. It is necessary that the inclination as well as the horizontal speed, preferably with respect to ground, are known. Ex. A, 1-2:55-1. For an autonomous flight, it would not be sufficient to just counteract any inclination, rather it has to be stopped by a well-dosed reverse inclination. Ex. A, 2:1-5.

18. The invention claimed in the '950 Patent addresses these needs and inefficiencies by providing an improved optical sensing and stabilising system.

19. Claim 13 of the '950 Patent states:

“13. System for controlling at least a roll attitude for stabilizing hovering flight of an airborne object,  
wherein an optoelectrical sensing means is provided for obtaining an optical flow measurement signal from a section of a ground image;  
the system comprising an electronic circuit adapted for generating from the optical flow signal of at least a lateral movement direction, at least or in part;  
a control signal in the manner of a negative feedback loop;  
the generated control signal being adapted for driving an actuating element affecting roll movements of the airborne object.” See Ex. A.

20. Claim 15 of the '950 Patent states:

“15. System according to claim 13 wherein the measurement signal is purged from effects resulting from rotational movements like rolling and/or pitching of the vehicle at least in part, by compensation mixing of a rotation signal signaling an angle or an angular velocity of a rotational measurand, with the measurement signal.” See Ex. A.

21. Specifically, Claim 13 of the '950 patent provides a solution to the previous problem by achieving improved stabilization inasmuch as it provides for an inclination control, whereby a measurement value for the actual inclination is generated and used as actual value for a feedback control. Ex. A, 3:51-53. Especially for hovering, flight inclination can be controlled

automatically as well as in particular horizontal velocity and/or position above ground can be stabilized and held. Ex. A, 3:54-57.

22. The specific elements of Claim 13 and Claim 15 accomplish these desired results to overcome the then existing problems in the relevant field of machine-controllable vehicles. *Ancora Technologies, Inc. v. HTC America, Inc.*, 908 F.3d 1343, 1348 (Fed. Cir. 2018) (holding that improving computer security can be a non-abstract computer-functionality improvement if done by a specific technique that departs from earlier approaches to solve a specific computer problem). See also *Data Engine Techs. LLC v. Google LLC*, 906 F.3d 999 (Fed. Cir. 2018); *Core Wireless Licensing v. LG Elecs., Inc.*, 880 F.3d 1356 (Fed. Cir. 2018); *Finjan, Inc. v. Blue Coat Sys., Inc.*, 879 F.3d 1299 (Fed. Cir. 2018); *Uniloc USA, Inc. v. LG Electronics USA, Inc.*, 957 F.3d 1303 (Fed. Cir. April 30, 2020). Claims need not articulate the advantages of the claimed combinations to be eligible. *Id.*

23. Claim 13 and Claim 15 of the ‘950 Patent recite a specific, plausibly inventive optical sensing system and system for stabilizing machine-controllable vehicles. *See e.g., Cellspin Soft, Inc. v. Fitbit, Inc.*, 927 F.3d 1306, 1319 (Fed. Cir. 2019), cert. denied sub nom. *See also Garmin USA, Inc. v. Cellspin Soft, Inc.*, 140 S. Ct. 907, 205 L. Ed. 2d 459 (2020).

24. Defendant commercializes, inter alia, said apparatus and method that perform all the steps recited in at least one claim of the ‘950 Patent. More particularly, Defendant commercializes, inter alia, methods that perform all the steps recited in Claim 13 and Claim 15 of the ‘950 Patent. Specifically, Defendant makes, uses, sells, offers for sale, or imports a method that encompasses that which is covered by Claim 13 and Claim 15 of the ‘950 Patent.

**DEFENDANT’S PRODUCT(S)**

25. Defendant offers solutions, such as the “Typhoon H Plus” (the “Accused Product”)<sup>1</sup>, that practices a system for controlling at least a roll attitude for stabilizing hovering flight of an airborne object which infringes the ‘950 Patent literally or under the doctrine of equivalents. A non-limiting and exemplary claim chart comparing the Accused Product of Claim 13 and Claim 15 of the ‘950 Patent is attached hereto as Exhibit B and is incorporated herein as if fully rewritten.

26. As recited in Claim 13, the system, at least in internal testing and usage, utilized by the Accused Product practices obtaining an optical flow measurement signal from a section of a ground image, wherein an opto-electronical sensing means is provided. See Ex. B.

27. As recited in one step of Claim 13, the system, at least in internal testing and usage, utilized by the Accused Product practices obtaining an optical flow measurement signal from a section of a ground image the system comprising an electronic circuit adapted for generating from the optical flow signal of at least a lateral movement direction, at least or in part. See Ex. B.

28. As recited in another step of Claim 13, the system, at least in internal testing and usage, utilized by the Accused Product practices obtaining an optical flow measurement signal from a section of a ground image a control signal in the manner of a negative feedback loop. See Ex. B.

29. As recited in another step of Claim 13, the system, at least in internal testing and usage, utilized by the Accused Product practices obtaining an optical flow measurement signal from a section of a ground image the generated control signal being adapted for driving an actuating element affecting roll movements of the airborne object. See Ex. B.

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<sup>1</sup> The Accused Product is just one of the products provided by Defendant, and Plaintiff’s investigation is on-going to additional products to be included as an Accused Product that may be added at a later date



30. As recited in Claim 15, the system, at least in internal testing and usage, utilized by the Accused Product practices a system wherein the measurement signal is purged from effects resulting from rotational movements like rolling and/or pitching of the vehicle at least in part. See Ex. B.

31. As recited in one step of Claim 15, at least in internal testing and usage, utilized by the Accused Product practices a system by compensation mixing of a rotation signal signaling an angle or an angular velocity of a rotational measurand, with the measurement signal. See Ex. B.

32. The elements described in the preceding paragraphs are covered by at least Claim 13 and Claim 15 of the '950 Patent literally or under the doctrine of equivalents. Thus, Defendant's use of the Accused Product is enabled by the apparatus and method described in the '950 Patent.

#### **INFRINGEMENT OF THE PATENT-IN-SUIT**

33. Plaintiff realleges and incorporates by reference all of the allegations set forth in the preceding paragraphs.

34. In violation of 35 U.S.C. § 271, Defendant has directly infringed the '950 Patent literally or under the doctrine of equivalents.

35. Defendant has had knowledge of infringement of the '950 Patent at least as of the service of the present Complaint.

36. Defendant has directly infringed at least Claim 13 and Claim 15 of the '950 Patent by using, at least through internal testing or otherwise, the Accused Product without authority in the United States. As a direct and proximate result of Defendant's direct infringement of the '950 Patent, Plaintiff has been damaged.

37. Upon information and belief, Defendant has induced others to infringe at least Claim 13 and Claim 15 of the '950 Patent, literally or under the doctrine of equivalents, by

encouraging infringement, knowing that the acts Defendant induced constituted patent infringement, and its encouraging acts actually resulted in direct patent infringement.

38. Upon information and belief, Defendant materially contributed to their own customers' infringement of the '950 Patent, literally or under the doctrine of equivalents, by selling the Accused Products to customers for use in a manner that infringed one or more claims of the '950 Patent. Moreover, the Accused Products are not a staple article of commerce suitable for substantial non-infringing use.

39. By engaging in the conduct described herein, Defendant has injured Plaintiff and is thus liable for infringement of the '950 Patent, pursuant to 35 U.S.C. § 271.

40. Defendant committed these acts of infringement without license or authorization.

41. As a result of Defendant's infringement of the '950 Patent, Plaintiff has suffered monetary damages and is entitled to a monetary judgment in an amount adequate to compensate for Defendant's past infringement, together with interests and costs.

42. Plaintiff reserves the right to modify its infringement theories as discovery progresses in this case; it shall not be estopped for infringement contention or claim construction purposes by the claim charts that it provides with this Complaint. The claim chart depicted in Exhibit B is intended to satisfy the notice requirements of Rule 8(a)(2) of the Federal Rule of Civil Procedure and does not represent Plaintiff's preliminary or final infringement contentions or preliminary or final claim construction positions.

**DEMAND FOR JURY TRIAL**

43. Plaintiff demands a trial by jury of any and all causes of action.

**PRAYER FOR RELIEF**

WHEREFORE, Plaintiff prays for the following relief:

- a. That Defendant be adjudged to have directly infringed the '950 Patent either literally or under the doctrine of equivalents;
- b. That Defendant be adjudged to have induced infringement of the '950 Patent either literally or under the doctrine of equivalents;
- c. That Defendant be adjudged to have contributorily infringed the '950 Patent either literally or under the doctrine of equivalents;
- d. An accounting of all infringing sales and damages including, but not limited to, those sales and damages not presented at trial;
- e. An assessment of pre-judgment and post-judgment interest and costs against Defendant, together with an award of such interest and costs, in accordance with 35 U.S.C. §284;
- f. That Defendant be directed to pay enhanced damages, including Plaintiff's attorneys' fees incurred in connection with this lawsuit pursuant to 35 U.S.C. §285; and
- g. That Plaintiff be granted such other and further relief as this Court may deem just and proper.

Dated: March 2, 2023

Respectfully submitted,

SAND, SEBOLT & WERNOW CO., LPA

/s/ Andrew S. Curfman

Andrew S. Curfman (Bar No. 0090997)

Aegis Tower – Suite 1100

4940 Munson Street NW

Canton, Ohio 44718

Telephone: (330) 244-1174

Facsimile: (330) 244-1173

andrew.curfman@sswip.com

ATTORNEY FOR PLAINTIFF