

**IN THE UNITED STATES DISTRICT COURT
FOR THE EASTERN DISTRICT OF TEXAS
MARSHALL DIVISION**

TEXTRON INNOVATIONS INC.,

Plaintiff,

v.

SZ DJI TECHNOLOGY CO., LTD.,
DJI EUROPE B.V., SZ DJI BAIWANG
TECHNOLOGY CO. LTD., and IFLIGHT
TECHNOLOGY COMPANY LTD.

Defendants.

Civil Action No. _____

JURY TRIAL DEMANDED

COMPLAINT FOR PATENT INFRINGEMENT

This is an action for patent infringement in which Plaintiff Textron Innovations Inc. (“TII” or “Plaintiff”) makes the following allegations against Defendants SZ DJI Technology Co., Ltd., DJI Europe B.V., SZ DJI Baiwang Technology Co. Ltd., and iFlight Technology Company Ltd. (collectively “DJI” or “Defendants”):

THE PARTIES

1. Plaintiff Textron Innovations Inc. is a Delaware corporation with its place of business located at 40 Westminister Street, Providence, Rhode Island 02903.

2. On information and belief, Defendant SZ DJI Technology Co., Ltd. (“SZ DJI”) is a Chinese corporation. SZ DJI’s principal place of business is at the 14th Floor, West Wing, Skyworth Semiconductor Design Building, No. 18 Gaoxin South 4th Ave, Nanshan District, Shenzhen, China. On information and belief, SZ DJI conducts business, either directly or through its agents, on an ongoing basis in this judicial district and elsewhere in the United States. Although SZ DJI is engaged in business in Texas, it has not designated an agent for service of process in

Texas. The Texas Secretary of State, therefore, is an agent for service of process for SZ DJI under the Texas Civil Practice and Remedies Code § 17.044(b). On information and belief, SZ DJI is responsible for the research and development of DJI-branded products imported and/or sold in the United States, including DJI's unmanned aerial vehicle ("UAV") products.

3. On information and belief, Defendant DJI Europe B.V. ("DJI BV") is a Netherlands corporation. DJI BV's principal place of business is at Bijdorp-Oost 6, 2992 LA Barendrecht, Netherlands. DJI B.V. conducts business, either directly or through its agents, on an ongoing basis in this judicial district and elsewhere in the United States. Although DJI B.V. is engaged in business in Texas, it has not designated an agent for service of process in Texas. The Texas Secretary of State, therefore, is an agent for service of process for DJI B.V. under the Texas Civil Practice and Remedies Code § 17.044(b). DJI BV is responsible for selling DJI-branded products in the United States, including DJI's UAV products.

4. On information and belief, Defendant SZ DJI Baiwang Technology Co. Ltd. ("DJI Baiwang") is a Chinese Corporation with a principal place of business at 101, 201, 301, 401, 501, Building 12 and 101, 201, 301, Building 13, Baiwangxin Industrial Park, No. 1002, Songbai Rd., Shenzhen, Guangdong, China 518108. On information and belief, DJI Baiwang conducts business, either directly or through its agents, on an ongoing basis in this judicial district and elsewhere in the United States. Although DJI Baiwang is engaged in business in Texas, it has not designated an agent for service of process in Texas. The Texas Secretary of State, therefore, is an agent for service of process for DJI Baiwang under the Texas Civil Practice and Remedies Code § 17.044(b). On information and belief, DJI Baiwang is responsible for manufacturing DJI-branded products that are imported and/or sold into the United States, including DJI's UAV products.

5. On information and belief, Defendant iFlight Technology Company Ltd. (“iFlight”) is a Hong Kong corporation with a principal place of business at Units 910-918 9/F, Building 16W No. 16 Science Park West Avenue Hong Kong Science Park, Pak Shek Kok, Tai Po, New Territories, Hong Kong. On information and belief, iFlight conducts business, either directly or through its agents, on an ongoing basis in this judicial district and elsewhere in the United States. Although iFlight is engaged in business in Texas, it has not designated an agent for service of process in Texas. The Texas Secretary of State, therefore, is an agent for service of process for iFlight under the Texas Civil Practice and Remedies Code § 17.044(b). On information and belief, iFlight is directly or indirectly responsible for the research and development of DJI-branded products that are offered for sale, sold, or used in the United States, or imported into the United States, the manufacture of DJI-branded products that are offered for sale, sold, or used in the United States, or imported into the United States, and/or the offering for sale, selling, use, or importation of DJI-branded products in the United States, including DJI’s UAV products.

BACKGROUND OF THE DISPUTE

6. TII is a subsidiary of Textron Inc. and holds patents that originate with Textron Inc. or its subsidiaries. One such subsidiary is Bell Textron Inc. (“Bell”). TII and Bell are sister companies. The patents asserted in this case originated with Bell and were assigned to TII.

7. Bell, based in Fort Worth, Texas, is a pioneer of aerospace technology, and its history spans over 80 years. In 1948, Bell was the first company to develop an aircraft capable of breaking the sound barrier with the Bell X-1 rocket engine-powered aircraft. In the 1960s, Bell played a significant role in NASA’s first lunar mission to land men on the Moon. Bell was the first company to certify a commercial helicopter. And Bell brought advanced tiltrotor systems to the market. Bell’s pioneering efforts have been rewarded by the issuance of over 1,400 United States patents.

8. DJI (short for Da-Jiang Innovations) was founded in China around 2006 by Wang Tao, who became the world's first drone billionaire. DJI is a "major player[] in the U.S. consumer UAV market." *DJI Technology, Inc. v. QFO Labs, Inc.*, No. 1-21-CV-00276, Dkt. No. 1 at ¶ 13 (D. Del. Feb. 24, 2021). According to DJI, "[i]n 2019, the Federal Aviation Administration reported that DJI's UAV products constituted more than 75% of the Part 107 unmanned aircrafts registered in the United States." *Id.* Public estimates show that DJI's 2020 revenue was \$4 billion. <https://origin.green.bloomberg.com/billionaires/profiles/tao-wang/>. A 2021 public estimate shows DJI's market share at 76% based on sales volume. <https://www.statista.com/statistics/1254982/global-market-share-of-drone-manufacturers/>.

9. DJI has leveraged TII's patents to propel DJI to a market-leading position in the manufacture and distribution of consumer and enterprise drones. TII brings this suit to protect its constitutional patent rights against DJI's past and continued infringement.

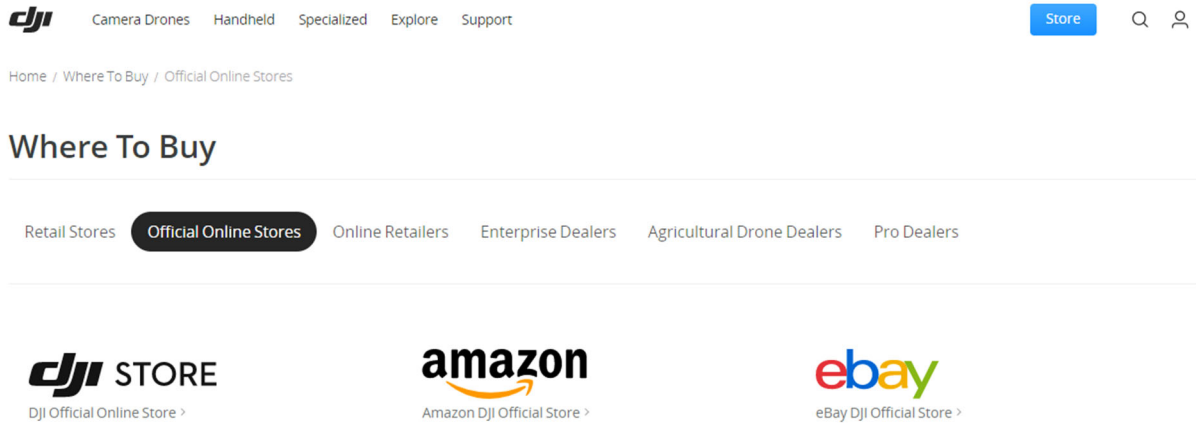
JURISDICTION AND VENUE

10. This is a civil action for patent infringement arising under the patent laws of the United States, 35 U.S.C. §§ 1 et seq. Accordingly, this Court has subject matter jurisdiction over this action pursuant to 28 U.S.C. §§ 1331 and 1338(a).

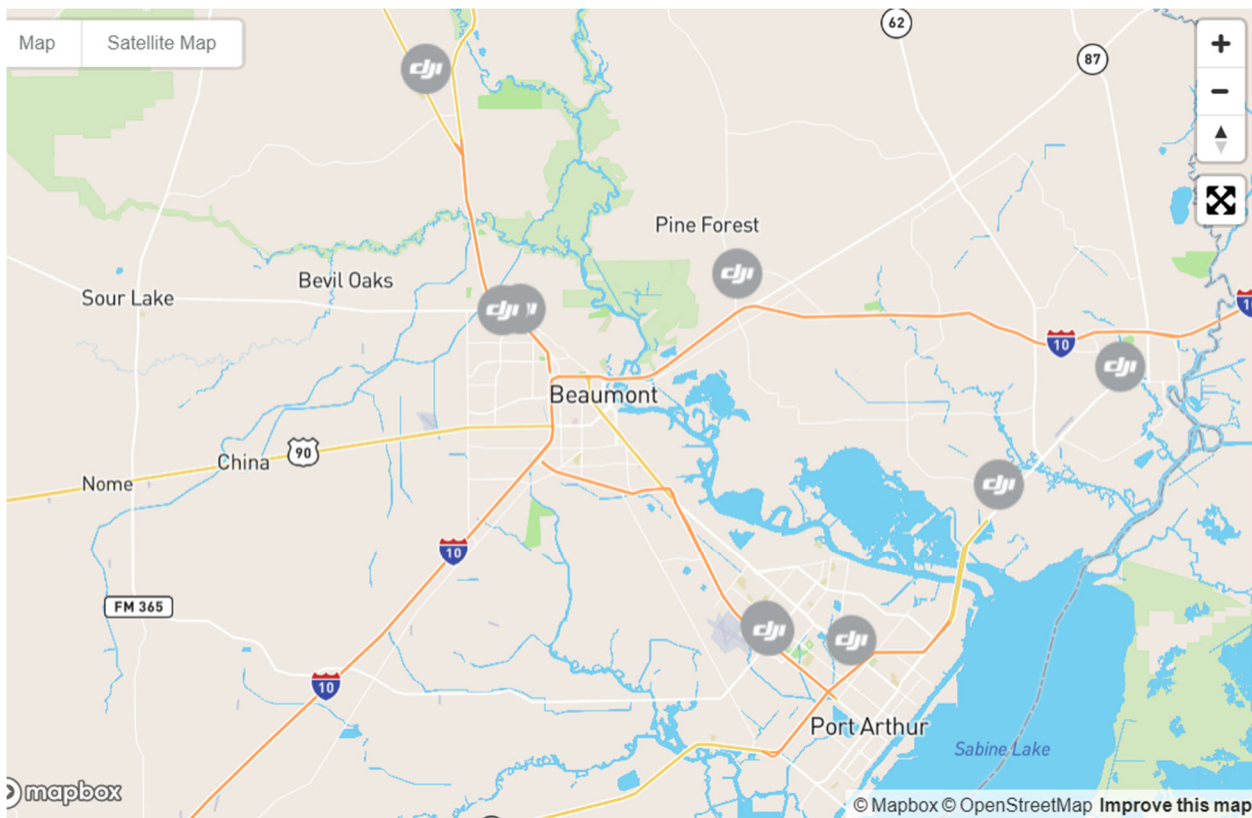
11. This Court has personal jurisdiction over Defendants at least because they (1) have committed acts of patent infringement and contributed to and induced acts of patent infringement by others in this District; (2) regularly did business or solicited business in this District; (3) engaged in other persistent courses of conduct and derived substantial revenue by its offering of infringing products and services and providing infringing products and services in this District; and (4) purposefully established substantial, systematic, and continuous contacts with this District and should have reasonably expected to be subject to suit here by its offering of infringing products and services and providing infringing products and services in this District.

12. In addition to Defendants' own online store at <http://store.dji.com>, Defendants have sold their drone and drone-related products within this judicial district via the following means:

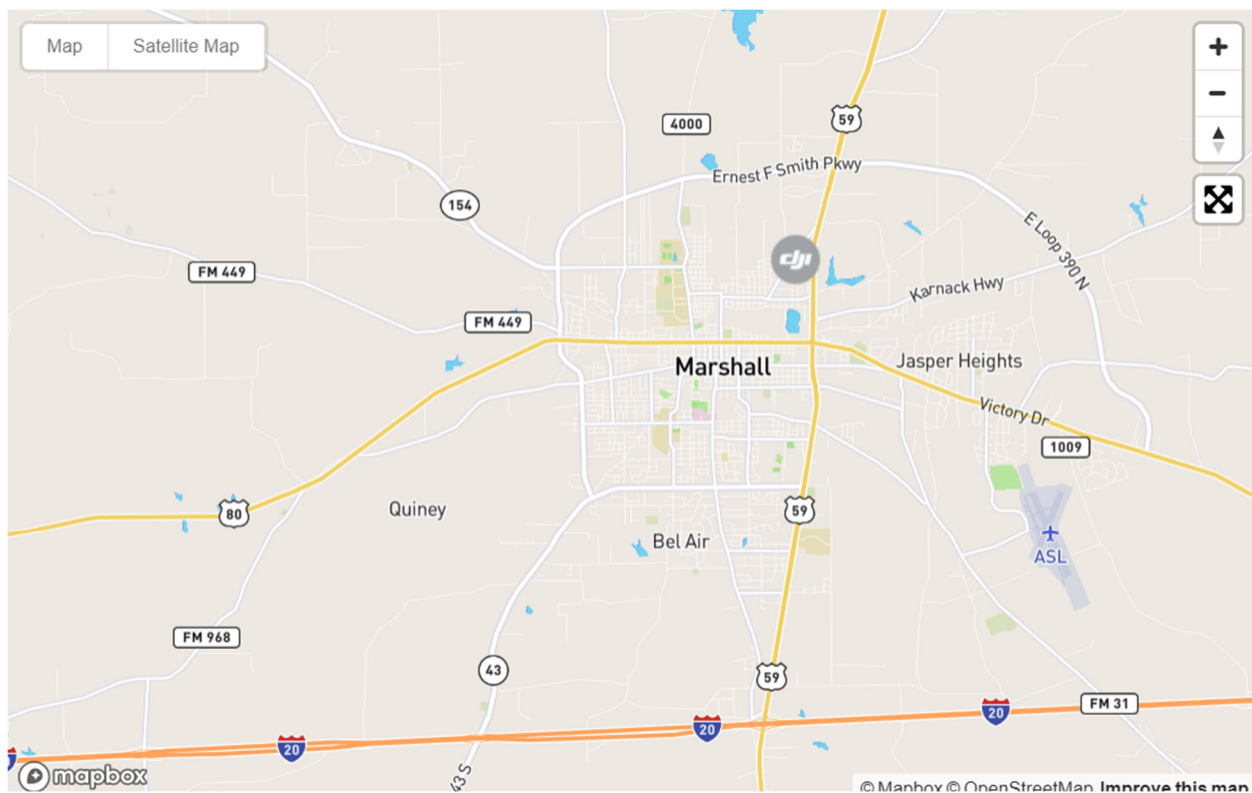
a. Defendants have official online stores with Amazon, and eBay, all of which are available to and accessed by users, customers, and potential customers of Defendants within this judicial district.



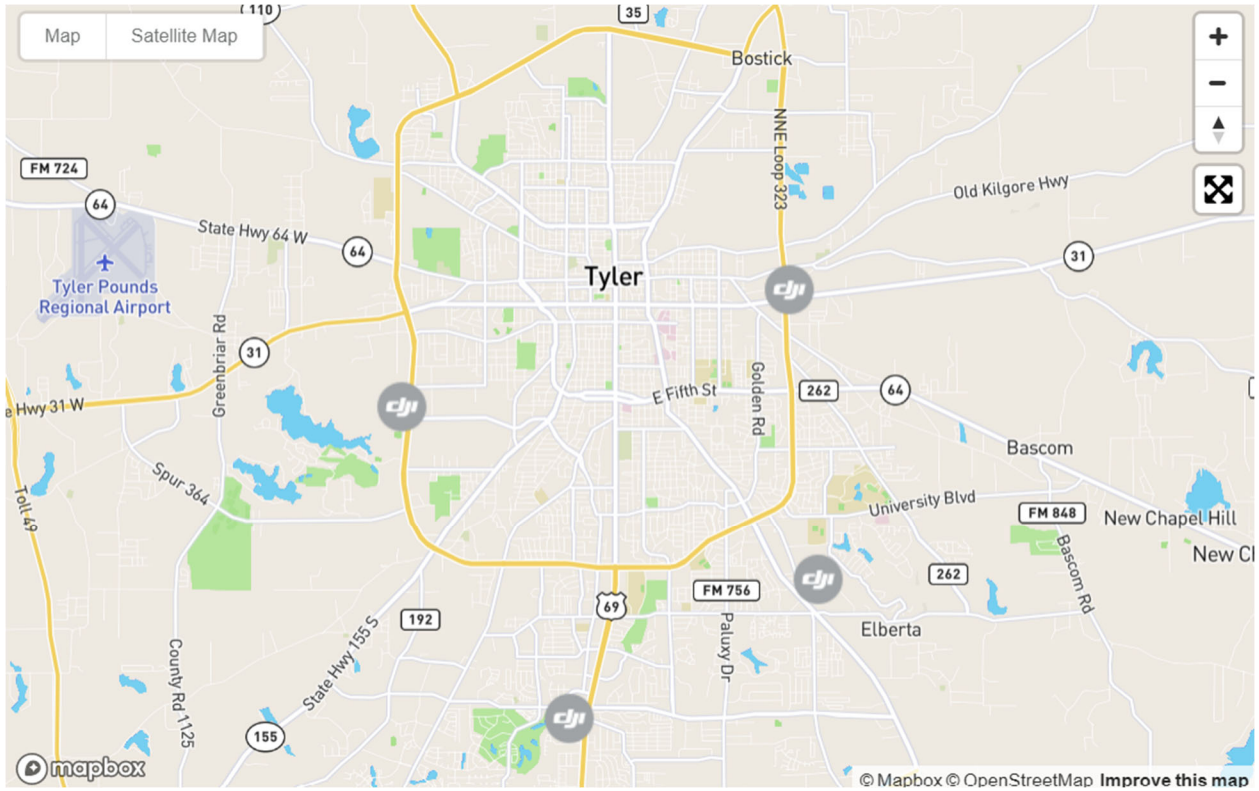
b. In addition to official online stores, Defendants have a wide variety of resellers (indicated by the gray markers on the below maps) and enterprise dealers (indicated by the black markers on the below maps) selling Defendants' drones and drone-related products within this judicial district. Defendants list these resellers and enterprise dealers on DJI's website. Examples of such resellers and dealers located in the Eastern District of Texas and listed on DJI's website are shown below.



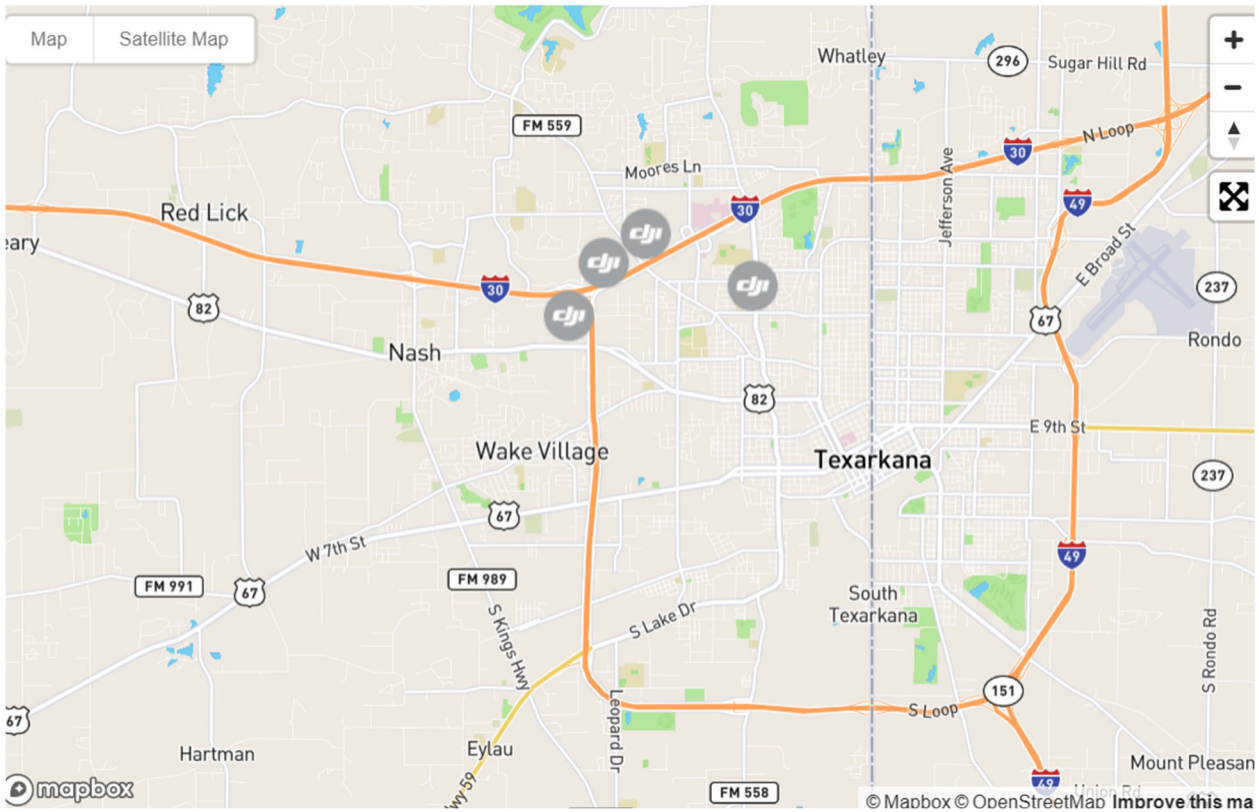
Beaumont, Texas



Marshall, Texas

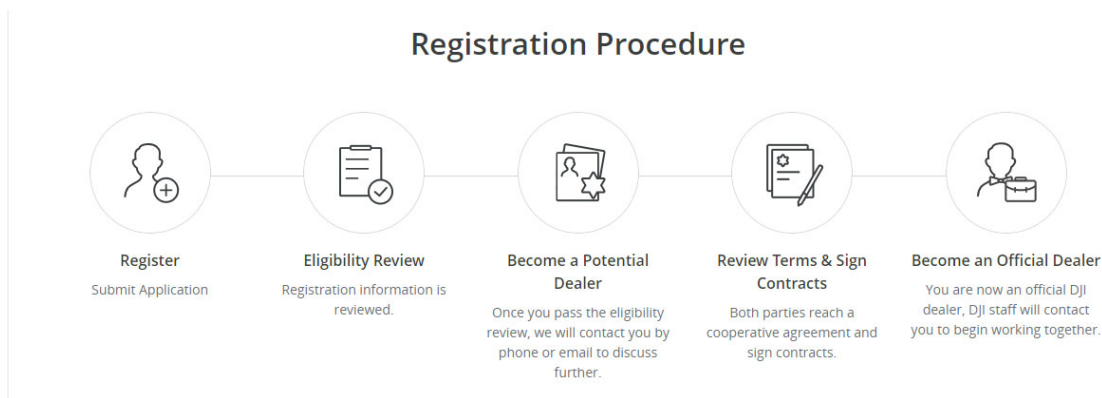


Tyler, Texas

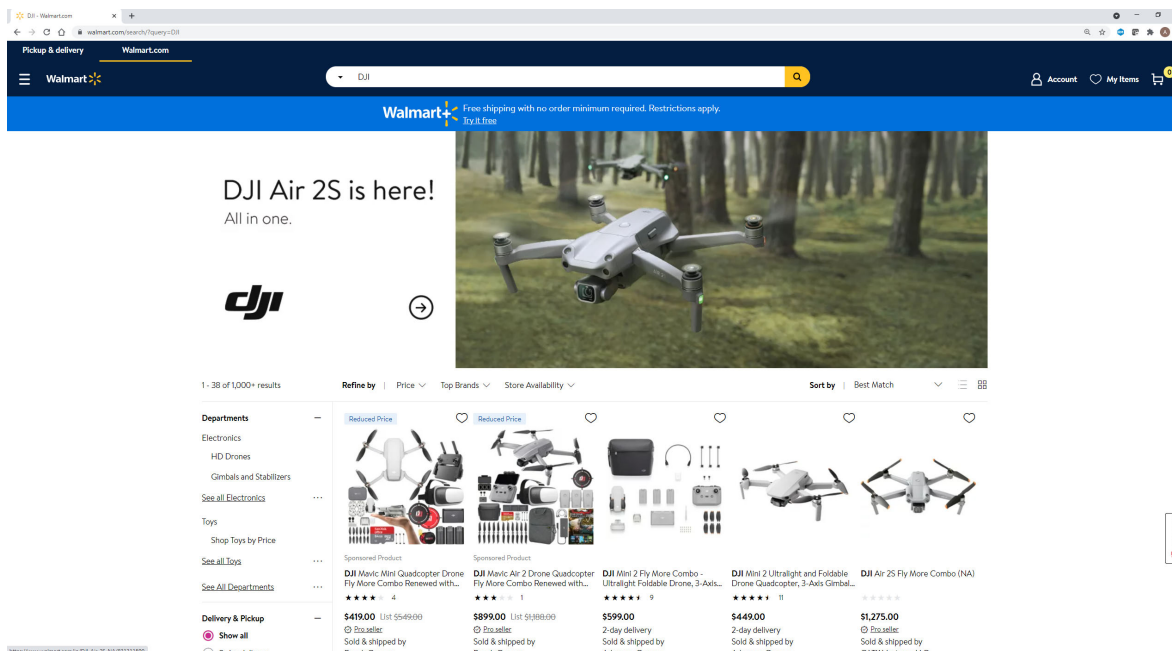


Texarkana, Texas

c. Defendants require these dealers to pass a registration procedure. DJI's registration procedure is a multi-step procedure that involves an application from the dealer, DJI's eligibility review of the prospective dealer, a discussion between the prospective dealer and DJI, and a "cooperative agreement" and a "sign[ed] contract[]." <https://prm.dji.com/>. DJI requires that dealers "strict[ly] adhere" to all of DJI's policies. <https://advexure.com/pages/apply-become-dji-dealer-reseller>. Once the cooperative agreement and contract are signed, DJI staff begins "working together" with the dealers. <https://prm.dji.com/>. An overview of the registration procedure from DJI's website is shown below:



d. Defendants have also authorized over 50 online retailers, as listed at <https://www.dji.com/where-to-buy/online-retails>, and have extended warranties to products purchased from the authorized DJI Dealers. Such authorized dealers include those companies listed above (e.g., Walmart and Sam's Club) and many more (e.g., Microsoft, BJ's, GameStop, Verizon Wireless, etc.). Many of these online retailers are available to and accessed by users, customers, and potential customers of the Defendants within this judicial district.



e. Defendants also have 25 designated professional dealers operating in the United States, all of which have online stores through which Defendants' drones and drone-related products are sold, which are available to and accessed by users, customers, and potential customers of the Defendants within this judicial district. A complete list of professional dealers can be found at: <https://www.dji.com/where-to-buy/professional-dealers>.

13. 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.

14. Venue is proper in this district under at least 28 U.S.C. §§ 1391(b), (c) and/or 1400(b). Venue in this district is proper for Defendants at least because they are foreign entities that have committed acts of infringement in this district as detailed throughout this complaint.

THE ASSERTED PATENTS

U.S. Patent No. 10,275,950

15. On April 30, 2019, the United States Patent Office (“USPTO”) duly and lawfully issued United States Patent No. 10,275,950 (“the ’950 Patent”), entitled “Avionics system adapted for employing smartphone to input-output flight data.” A true and correct copy of the ’950 Patent is attached as Exhibit A. By assignment, duly recorded with the USPTO, TII owns all substantial rights to the ’950 Patent, including the right to sue and recover damages for all infringement. Ex. F.

16. The ’950 Patent generally relates to “monitor[ing] aircraft flight performance data.” Ex. A at Abs. Figure 3 of the ’950 Patent illustrates a simplified schematic of the novel flight performance monitoring, analysis, and feedback system:

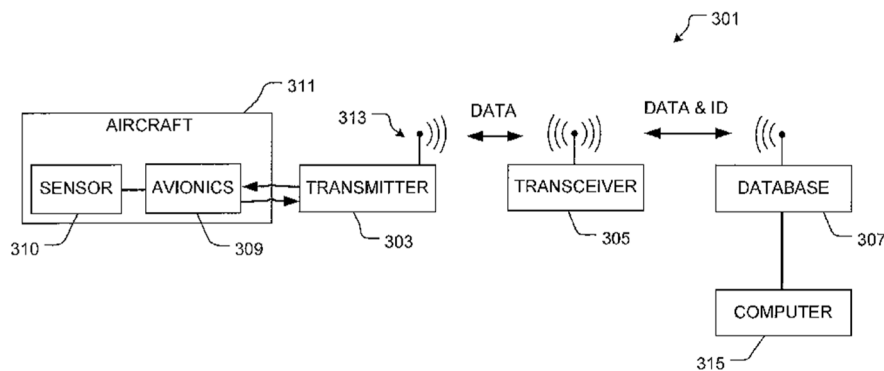


FIG. 3

Id. at Figure 3, 2:65-3:10 (“During operation, a sensor 310 associated with avionics system 309 senses performance data of aircraft 311 during flight, which in turn is received, stored, and transmitted to transceiver 305), and 3:54-63 (“In one contemplated method...[d]ata such as flight performance data, is written to transmitter 303 during flight, and once the flight is over, the user

can then download the data directly to transceiver 305 or command the data to be sent directly to database 307, e.g., internet share or network. Once received by database 307, the user can analyze the data using third party software via computer 315”).

17. Although Figure 1 of the ‘950 Patent illustrates a helicopter as the aircraft, the ‘950 Patent recognizes that the monitoring system may be used with an array of aircrafts. Ex. A at 2:43-46 (“Although shown associated with a helicopter, it will be appreciated that the system of the present application could also be utilized with different types of rotary aircraft and vehicles”).

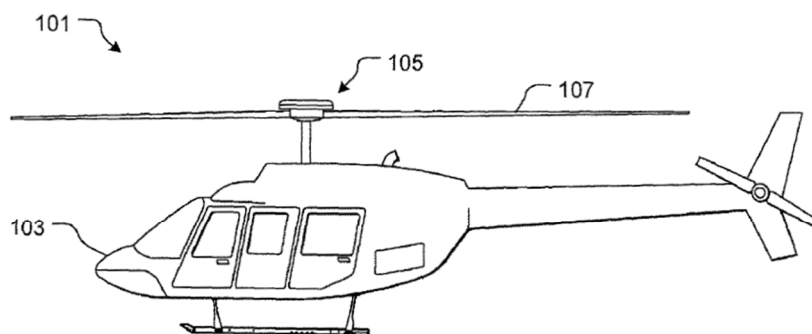


FIG. 1

18. The ‘950 Patent recognized a problem with then-existing devices and techniques for monitoring and utilizing flight performance of the aircraft during flight. As the ‘950 Patent explains, “[p]rior to flight, the avionics systems are typically manually programmed with flight planning information. The manual process results in significant downtime, and in some scenarios, can result in mistakes due to incorrect input.” *Id.* at 1:12-16. Further, “[c]onventional methods include[d] the process of manually keeping the logbooks.” *Id.* at 3:38-39. The ‘950 Patent thus recognized a complex technological problem with displaying and storing flight performance information of an aircraft during flight.

19. The ‘950 Patent describes specific improvements to then-existing devices and techniques for monitoring flight performance and using the monitored data to provide valuable

feedback. For example, the system of the '950 Patent can be utilized as a training system: “after flight, the flight performance information is sent to database 307 ..., then thereafter reviewed by a flight instructor. Thereafter, the flight instructor can provide feedback based upon the flight performance data.” *Id.* at 4:43-48. The method of the '950 Patent also “reduce[s] the record-keeping burden and reduce[s] the manual entry errors.” *Id.* at 3:38-41. Further, the '950 Patent describes that “wireless connectivity ... alleviates the need to remove/replace memory cards often, allows for easier integration with online/internet analysis solutions, [and] improves user experience by integrating common devices into the solution.” *Id.* at 4:19-23. The '950 Patent further explains that the present invention provides significant advantages over the prior art, including: (1) eliminating the need for specialized and dedicated onboard hardware to facilitate “the automatic download and/or upload of data to onboard avionics”, (2) “eliminating errors that can be caused by manual entry of flight planning information”; (3) allowing “for easier upgrades/improvements in hardware and software”; (4) protecting the onboard system from malicious attacks to hardware; and (5) “protect[ing] the privacy of the pilot’s data.” *Id.* at 4:24-51.

20. The '950 Patent claims capture specific technological improvements. For example, the '950 Patent’s Claim 9 recites a system with a wireless transmitter that is configured to receive and transmit flight performance data from an avionics system of an aircraft to a transceiver. Claim 9 explains that the transceiver is configured for receiving information relating to sensed flight performance from the wireless transmitter and for transmitting the information to a database. *See id.* at 6:14-24 (“[T]he transceiver having a transceiver identity associated with pilot identification information, the transceiver being configured for receiving information relating to sensed flight performance from the wireless transmitter, for associating the thus received information with the pilot identification information associated with the transceiver identity, and for transmitting the

received information with the thus associated pilot identification information to the database”). This allows for flight performance information of an aircraft to be displayed and stored during flight “with little to no flight downtime.” *Id.* at 3:44-46.

21. The '950 Patent's claimed improvements were not routine, conventional, or well-known. As the '950 Patent explains, these improvements were advantageous and inventive over the prior art techniques that required manual programming of flight planning information, which “result[ed] in significant downtime.” *Id.* at 1:12-16. The '950 Patent recognized the unconventional and advantageous nature of having a wireless method to transmit flight monitoring and performance information in a way that would allow the information to be transmitted during the aircraft's flight, avoiding downtime after the flight and providing an opportunity for secure feedback from a flight instructor. The '950 Patent's improved devices and techniques recited in the claims provide technological benefits over the prior art.

U.S. Patent No. 8,332,082

22. On December 11, 2012, the USPTO duly and lawfully issued United States Patent No. 8,332,082 (“the '082 Patent”), entitled “Flight Control Laws For Constant Vector Flat Turns.” A true and correct copy of the '082 Patent is attached as Exhibit B. By assignment, duly recorded with the USPTO, TII owns all substantial rights to the '082 Patent, including the right to sue and recover damages for all infringement. Ex. G.

23. The '082 Patent generally relates “to a flight control system ... which enable[s] precise aircraft maneuvering relative to the ground.” Ex. B at 1:5-10. The '082 Patent is specifically directed to “an aircraft and method to control flat yawing turns of the aircraft while maintaining a constant vector across a ground surface.” Ex. B at Abs. The '082 Patent explains that “some missions may call for flat yawing turns while maintaining a constant vector across the ground,” i.e., on a steep approach, quickly transitioning out of rearward or sideward flight while continuing along the same

ground track, and acquiring and tracking a point on the ground without having to fly directly towards it. *Id.* at 1:42-50. One of the benefits of the '082 Patent control system is that the pilot can complete a CVFT (Constant Vector Flat Turn) “with minimal workload.” *Id.* at 2:51-55. One example of the '082 Patent’s innovative system achieving and maintaining a CVFT is shown in Figure 1 of the patent:

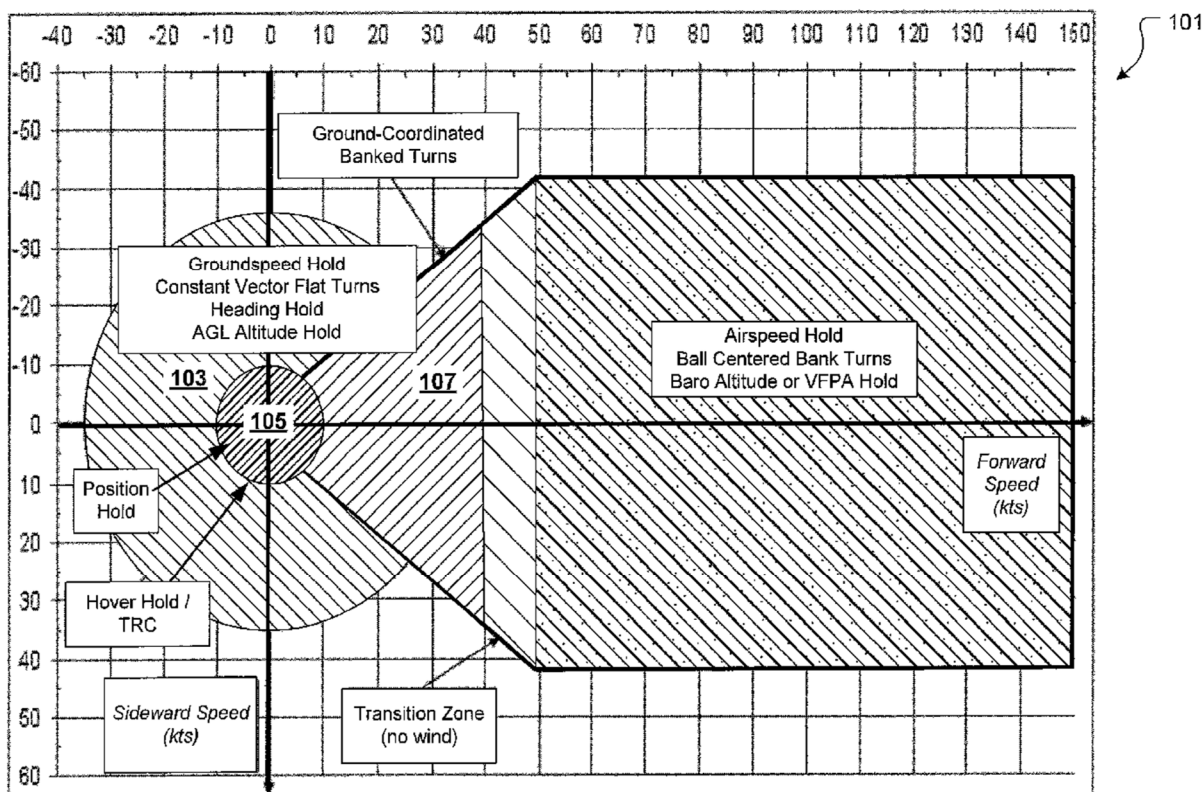


FIG. 1

24. The '082 Patent recognized problems with then-existing flight control systems. For example, the '082 Patent explains that pilots had to “coordinate the aircraft’s motions in multiple control axes,” and “such maneuvers required extraordinary pilot skill”. *Id.* at 1:50-52; 1:21-25 (Traditional flight control systems “require[] the pilot to make constant control inputs in multiple axes in order to counter disturbances caused by wind, as well as to remove the natural coupled

response of the aircraft”). This required the pilot to fly the aircraft and coordinate inputs to both the lateral and directional controllers—all while maintaining ground track. *Id.* at 1:36-40.

25. The '082 Patent describes drawbacks of those techniques: “The pilot workload during such maneuvers can become quite high since the pilot must sense un-commanded aircraft motions and then put in the appropriate control input to eliminate the disturbance. In a worst-case scenario, a pilot might be required to fly GRM [(ground-referenced maneuvering)] in a degraded visual environment. With the lack of visual cues to detect off-axis motion, the pilot might accidentally fly into an external hazard while maneuvering in a confined space.” *Id.* at 1:25-33.

26. The '082 Patent describes specific improvements to then-existing aircraft and techniques for aircraft flight control systems. Having recognized the problems with existing aircraft and techniques, the '082 Patent recognized and fulfilled a need for “seamless and transient free GRM.” *Id.* at 2:35-36. The '082 Patent explains that “[t]he control system ... allows the pilot to complete a CVFT with minimal workload since the ground vector will be automatically maintained by the control laws without the pilot having to uses cockpit switches to change modes.” *Id.* at 2:51-55. “The control system utilizes relative ground-speed difference to automatically control pitch and roll attitudes so that the aircraft will maintain a constant vector during a low speed flat turn.” *Id.* at 2:47-51. The '082 Patent thus eliminated drawbacks of existing flight control systems, including the need for a pilot to control inputs in multiple axes while assessing un-commanded aircraft motions and simultaneously trying to maneuver the aircraft to the ground.

27. The '082 Patent claims capture these specific improvements. For example, Claim 1 of the '082 Patent recites an aircraft comprising a control system and a “model adapted to decouple the directional movement of the aircraft into a lateral equation of motion and a longitudinal equation of motion.” *Id.* at 8:12-14. Claim 1 further recites that the aircraft uses an initialization

command logic to selectively activate lateral and longitudinal control architectures for controlling the latitudinal and longitudinal motions of the aircraft. *Id.* at 8:24-26. Claim 1 thus captures the improvements over the prior art. The Notice of Allowance states that “none of the references teach[] an aircraft and method to control flat yawing turn of an aircraft while maintaining a constant vector heading across a ground surface that includes at least [the elements of Claim 1].” *Notice of Allowance* dated August 8, 2017, p.2.

28. The '082 Patent recognizes the value of the invention to society. The '082 Patent explains that “the methods for aircraft guidance disclosed in this invention can be applied to ... (1) full authority fly-by-wire flight control systems; (2) traditional cockpit layouts...; and (3) any aircraft capable of GRM, including both rotorcraft and jump jets.” *Id.* at 4:22-32. The system is particularly suited for use in aircrafts “which can hover and fly at low speeds.” *Id.* at 1:12-15.

29. The '082 Patent's claimed improvements were not routine, conventional, or well-known. As explained above, existing flight control techniques required “manual cockpit switches to select a Constant Vector Flat Turn (CVFT) mode”—“which took considerable pilot concentration, since the pilot had to coordinate inputs to both the lateral and directional controllers.” *Id.* at 2:39-40; 1:37-41. The '082 Patent provided an unconventional solution that automatically adjusts inputs to control the yaw movement of an aircraft while the aircraft maintains a constant vector heading. Adjusting yaw movement while maintaining a constant vector heading is useful in various situations. For example, it may be used in conjunction with a point of interest (“POI”) where selected waypoints are set to face the point of interest such that the aircraft is always facing the point of interest (constantly adjusting its yaw) along the straight flight path between waypoints (constant vector heading). Automating such flight involves complex aerospace engineering and was not routine or well-known.

30. The '082 Patent's improved devices and techniques recited in the claims provide technological advantages over the prior art. These advantages include (1) "seamless and transient free GRM without the need for manual cockpit switches; and (2) "allow[ing] the pilot to complete a CVFT with minimal workload since the ground vector will be automatically maintained by the control laws." *Id.* at 2:47-55.

U.S. Patent No. 8,682,505

31. On March 25, 2014, the USPTO duly and lawfully issued United States Patent No. 8,682,505 ("the '505 Patent"), entitled "Flight Control Laws for Constant Vector Flat Turns." A true and correct copy of the '505 Patent is attached as Exhibit C. By assignment, duly recorded at the United States Patent and Trademark Office, TII owns all substantial rights to the '505 Patent, including the right to sue and recover damages for all infringement. Ex. H. The '505 Patent is a continuation of the '082 Patent.

32. The '505 Patent relates to "a flight control system having flight control laws which enable precise aircraft maneuvering relative to the ground." Ex. C at 1:7-11. The '505 Patent describes problems with then-existing flight control systems and techniques. One of the problems that the '505 Patent describes is flight control in reduced-visibility situations. *Id.* at 1:27-32. The '505 Patent recognized that flight in those situations is perilous and can lead to crashes with external hazards. *Id.* The '505 Patent also describes that "[f]or traditional flight control systems, ground-referenced maneuvering (GRM) requires the pilot to make constant control inputs in multiple axes in order to counter disturbances caused by wind, as well as to remove the natural coupled response of the aircraft." *Id.* at 1:19-24. "The pilot workload during such maneuvers can become quite high since the pilot must sense un-commanded aircraft motions and then put in the appropriate control input to eliminate the disturbance." *Id.* at 1:23-27.

33. The '505 Patent explains that “some mission tasks may call for flat yawing turns while maintaining a constant vector across the ground.” *Id.* at 1:42-44. The '505 Patent thus is directed to “enabl[ing] a pilot to use the directional controller to command flat yawing turns at low groundspeeds, while maintaining a constant vector across the ground.” *Id.* at 2:47-50. The '505 Patent does this by, for example, “automatically adjust[ing] pitch and roll attitude to keep the aircraft moving in the same direction at a constant speed whenever the pilot inputs a directional command at low speed.” *Id.* at 2:53-55. These advanced concepts allow, for example, for “seamless and transient free GRM without the need for manual cockpit switches.” *Id.* at 2:56-58.

34. The system of the '505 Patent “allows the pilot to complete a CVFT with minimal workload since the ground vector will be automatically maintained by the control laws.” *Id.* at 2:62-64. This is an improvement from prior flight control systems that “required extraordinary pilot skill to coordinate the aircraft’s motions in multiple control axes.” *Id.* at 1:50-52.

35. The '505 Patent claims capture these specific improvements. For example, Claim 1 recites a control system for an aircraft comprising a lateral control architecture and a longitudinal control architecture to control lateral and longitudinal motion of the aircraft. Claim 1 further recites the control system utilizes the lateral and longitudinal control architectures to control yaw movement of the aircraft while the aircraft maintains a constant vector heading across a ground surface. As another example, Claim 11 recites a method that includes sensing directional movement of an aircraft, determining the lateral and longitudinal movements of the aircraft, and selectively controlling flat yaw movement of the aircraft while maintaining a constant vector flat turn relative to a ground surface. These recited concepts are described in the specification as improvements that provide important benefits to pilots, including, for example, reducing pilot skill and coordination required to effectively maneuver the aircraft.

36. The '505 Patent's claimed improvements were not routine, conventional, or well-known. As explained above, existing flight control techniques required "manual cockpit switches to select a Constant Vector Flat Turn (CVFT) mode"—"which took considerable pilot concentration, since the pilot had to coordinate inputs to both the lateral and directional controllers." *Id.* at 2:51-52; 1:38-41. The '505 Patent provided an unconventional solution that automatically adjusts inputs to control the yaw movement of an aircraft while the aircraft maintains a constant vector heading. Adjusting yaw movement while maintaining a constant vector heading is useful in various situations. For example, it may be used in conjunction with a point of interest ("POI") where selected waypoints are set to face the point of interest such that the aircraft is always facing the point of interest (constantly adjusting its yaw) along the straight flight path between waypoints (constant vector heading). Automating such flight involves complex aerospace engineering and was not routine or well-known.

37. The '505 Patent's improved devices and techniques recited in the claims provide technological advantages over the prior art. These advantages include (1) "seamless and transient free GRM without the need for manual cockpit switches; and (2) "allow[ing] the pilot to complete a CVFT with minimal workload since the ground vector will be automatically maintained by the control laws." *Id.* at 2:46-55.

U.S. Patent No. 11,288,972

38. On March 29, 2022, the USPTO duly and lawfully issued United States Patent No. 11,288,972 ("the '972 Patent"), entitled "Fleet Controller." A true and correct copy of the '972 Patent is attached as Exhibit D. By assignment, duly recorded at the United States Patent and Trademark Office, TII owns all substantial rights to the '972 Patent, including the right to sue and recover damages for all infringement. Ex. I.

39. The '972 Patent generally relates to “a system and method for scheduling and controlling individual autonomous vehicles in a fleet.” Ex. D at 1:5-7. The '972 Patent recognized problems that existing fleet management systems have faced. The '972 Patent explains that “[t]he increasing availability of electric-powered vehicles and improved remote vehicle control capabilities has recently led to increasing use of autonomous vehicles and development of autonomous vehicle fleets. The cost and complexity of autonomous vehicles, coupled with the increasing size of vehicle fleets calls for centralized fleet management systems.” *Id.* at 1:13-19. The '972 Patent thus recognized a problem in the art and provided a solution to that problem through a “fleet management system providing control and monitoring of autonomous vehicles to optimize the effective use of the vehicles, while maintaining safety and maintenance standards.” *Id.* at 2:21-25.

40. The '972 Patent describes that embodiments of the fleet management system are “directed to control and monitoring of flying vehicles, such as drones, aircraft, rotorcraft, or the like.” *Id.* at 2:25-28. “[T]he fleet management system provides a persistent connection with each vehicle, which may include real-time, near real-time, monitoring, or tracking last known statuses of vehicles for use in the case of a connection failure by the vehicle.” *Id.* at 2:33-37. Moreover, “the fleet management system provides for tracking, monitoring and management at the device level.” *Id.* at 2:33-37. Tracking at the device level “may include storing device performance, use or maintenance history.” *Id.* at 3:7-8. These improvements allow the system to “ensure safe and desirable fleet operations.” *Id.* at 4:40-41. In short, the '972 Patent provides improved deployment and management of autonomous vehicles in the fleet. *Id.* at 3:13-14.

41. The '972 Patent claims capture these specific improvements. For example, Claim 15 of the '972 Patent recites a fleet controller that is configured to obtain a mission for an autonomous vehicle in the fleet, identify a flight path for the mission, verify the usability of the

flight path, and modify the flight path accordingly. Claim 15 recites that the usability of the flight path is determined by checking for traffic in the flight path and availability of the flight path due to flight restrictions or requirements for use of the flight path—which, for example, helps provide efficient management of autonomous vehicles. Claim 15 further recites that the fleet controller is configured to monitor operation of the vehicle during performance of the mission—which, for example, also helps provide efficient management of autonomous vehicles.

42. The '972 Patent's claims were not routine, conventional, or well-known. Rather than managing each vehicle individually, the '972 Patent's claims recite an unconventional technique that involves using a fleet management system to control autonomous vehicles in a fleet, so that the efficiency in deploying and managing autonomous vehicles in a fleet is improved. "The fleet managements system 102 is a system for launching and sustaining continuous operations for fleets of autonomous vehicles...[, it] may include a fleet scheduler 104 that generates, or submits entries to, a master schedule 106." *Id.* at 3:19-23. "The fleet scheduler 104 may then produce the optimized master schedule 106, which may include vehicle positions, mission timing, flight plans, maintenance and service (such as vehicle recharge/refuel) schedules, and the like, for fleet operations." *Id.* at 3:31-39.

43. The '972 Patent's improved techniques recited in the claims provide technological advantages. The '972 Patent provides examples of some technological advantages: (1) The fleet controller will "delay, redirect, or otherwise modify commands to the vehicles if executing the master schedule would result in unsafe or undesirable conditions;" (2) The fleet scheduler can coordinate maintenance times to "ensure[] the fleet remains available to carry out daily mission operations;" and (3) The fleet scheduler "permit[s] vehicles to be automatically prepositioned before

an actual demand exists, rather than tasking vehicles to a particular site or assignment after demand occurs.” *Id.* at 4:27-30; 4:17-23; and 3:67-4:3.

COUNT I: INFRINGEMENT OF U.S. PATENT NO. 10,275,950

44. TII re-alleges and incorporates herein by reference the allegations contained in Paragraphs 1–43 of the Complaint as if fully set forth herein.

45. DJI has directly infringed, and continues to directly infringe, the '950 Patent in violation of 35 U.S.C. § 271(a) by using, selling, offering for sale in the United States, and importing into the United States, without authorization, the accused products that practice various claims of the '950 Patent literally or under the doctrine of equivalents. Those products include, for example, any DJI drone that is used in combination with the corresponding mobile applications or controllers (e.g., the DJI GO app, DJI Smart Controller, and DJI RC Pro). Those products include the DJI Phantom series (e.g., Phantom 3 Advanced, Phantom 3 Professional, Phantom 3 SE, Phantom 3 Standard, Phantom 4, Phantom 4 Pro, Phantom 4 Pro+, Phantom 4 Advanced, Phantom 4 Advanced+), the Inspire series (e.g., Inspire 1, Inspire 1 Pro, Inspire 1 Raw), the DJI Mini Series (e.g., DJI Mini 3 Pro, DJI Mini SE, DJI Mini 2, Mavic Mini), the DJI FPV Series (e.g., DJI FPV, DJI Digital FPV System), the DJI Air 2S, the Spark Series (e.g., Spark), and the DJI Mavic series (e.g., Mavic Pro, Mavic Pro Platinum, Mavic 2, Mavic 2 Zoom, Mavic 2 Pro, Mavic Air 2, DJI Mavic 3, DJI Mavic 3 Cine) (collectively, the “Accused '950 Products”). This feature is shown on a DJI user interface as follows:



46. As a non-limiting example, the Accused '950 Products meet every element of at least Claim 9 of the '950 Patent literally or under the doctrine of equivalents. Claim 9 recites:

9. An aircraft flight performance monitoring system, comprising:

a wireless transmitter having memory, the wireless transmitter in data communication with an avionics system of an aircraft, the avionics system comprising a memory card interface and the wireless transmitter comprising a non-volatile memory card coupled to the memory card interface of the avionics system;

a database in data communication with the avionics system, the database being configured to store information relating to a pilot flying the aircraft during flight and flight performance of the aircraft during flight;

a transceiver comprising an input device; the transceiver having a transceiver identity associated with pilot identification information, the transceiver being configured for receiving information relating to sensed flight performance from the wireless transmitter, for associating the thus received information with the pilot identification information associated with the transceiver identity, and for transmitting the received information with the thus associated pilot identification information to the database;

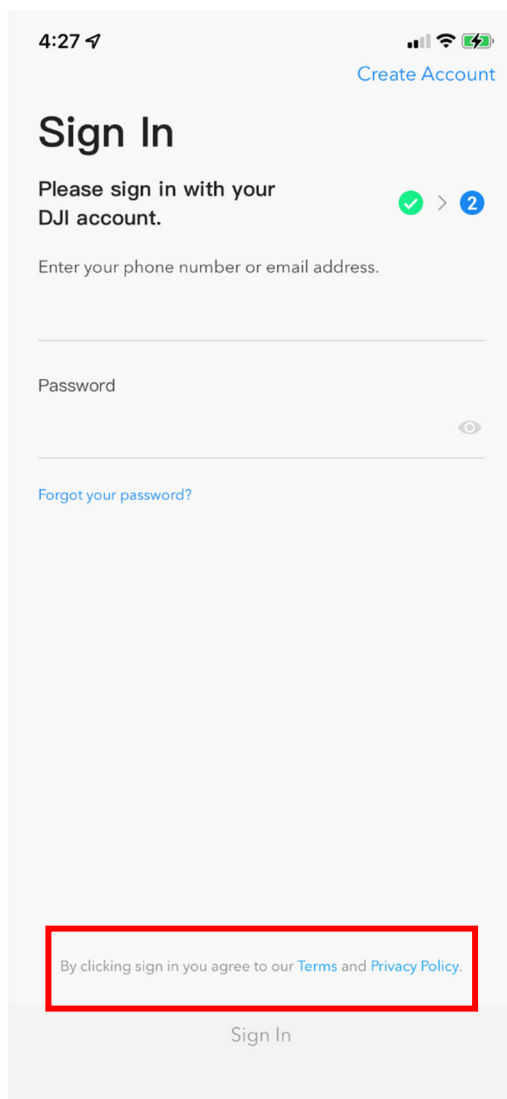
wherein the stored sensed flight performance is only accessible with the associated pilot identification information;

wherein the wireless transmitter is configured to receive and transmit flight performance data from the avionics system to the transceiver, which in turn is transmitted to the database; and

wherein the pilot identification information is entered directly into the input device of the transceiver.

47. Exhibit E-1 to this Complaint is a claim chart showing a non-limiting example of how DJI's drones, applications, and controllers meet Claim 9 literally or under the doctrine of equivalents. The components and functionality in this chart are representative of the components and functionality present in all Accused '950 Products. DJI thus directly infringed and continues to directly infringe each limitation of at least Claim 9 of the '950 Patent by using, selling, offering for sale in the United States, and importing into the United States, without authorization, the Accused '950 Products.

48. To the extent Defendants do not perform each and every limitation of the claims of the '950 Patent, Defendants jointly infringe those claims. In particular, DJI directs or controls its users of the Accused '950 Products to perform one or more limitations of the claims nationwide through its own websites, applications, and controllers, and expects and intends that the Accused '950 Products will be so used. For example, DJI requires customers and users to use and fly the infringing DJI drones through the applications DJI produces and distributes for use either on customer's mobile devices or DJI controllers. DJI further requires users of the DJI mobile



applications to agree to extensive terms and conditions. Finally, DJI customers realize a tangible benefit by using DJI’s technology to fly drones and other aircrafts and view recorded flight performance data. *See* Ex. A at 1:20-22 (“The ‘950 Patent system collects information, “[t]he information is useful for monitoring the aircraft performance, to assist with maintenance, and to provide feedback during pilot training”).

49. DJI also indirectly infringes at least Claim 9 of the ’950 Patent in violation of 35 U.S.C. § 271(b) by taking active steps to encourage and facilitate direct infringement by third parties, including users, partners, affiliates, subsidiaries, and service providers, in the United States with knowledge and the specific intent that its efforts would result in the direct infringement of the

'950 Patent. For example, DJI actively induces infringement of the '950 Patent by designing, manufacturing, selling, or distributing the Accused '950 Products and then training its customers and users on the use of those products and the accompanying mobile applications or controllers, including through the creation and dissemination of supporting materials, videos, instructions, product manuals, and technical information. https://www.youtube.com/watch?v=t0MI-I_yKU; <https://fcc.report/FCC-ID/2AHAY-WM3301601>. DJI has stated that its “marketing efforts include . . . preparing instruction videos and user manuals.” *DJI Technology, Inc. v. QFO Labs, Inc.*, No. 1-21-CV-00276, Dkt. No. 1 at ¶ 14 (D. Del. Feb. 24, 2021). As another example, DJI actively induces infringement of the '950 Patent by instructing, encouraging, or requiring their subsidiaries and affiliates, including DJI Creative Studio LLC, DJI Industrial Inc., and DJI Service LLC to use, sell, offer for sale in the United States, and importing into the United States, without authorization, the accused products that practice various claims of the '950 Patent, such as any DJI drone that is used in combination with the corresponding mobile applications or controllers (e.g., the DJI GO app, DJI Smart Controller, and DJI RC Pro). As yet another example, DJI actively induces infringement of the '950 Patent through the creation and dissemination of promotional and marketing materials. <https://www.youtube.com/watch?v=x4Y2zVscTq4>. DJI has stated that its “marketing efforts include preparing marketing videos, . . . providing samples to reviewers of drone products, and preparing for press conferences and marketing events.” *Id.* DJI’s active inducement is done with the knowledge and the specific intent that its efforts would result in the direct infringement of the '950 Patent.

50. At least as of the filing date of this suit, DJI has had knowledge of the '950 Patent and knowledge of how DJI and third parties infringe that patent. The Complaint includes a claim chart explaining how DJI infringes the '950 Patent. Ex. E-1.

51. DJI also is liable for contributory infringement of the '950 Patent under 35 U.S.C § 271(c) by selling or offering for sale the Accused '950 Products and/or other components (e.g., flight controllers, controllers, mobile applications, etc.) in the United States and importing the Accused '950 Products and/or other components (e.g., flight controllers, controllers, mobile applications, etc.) into the United States with knowledge that they are especially designed or adapted to operate in a manner that infringes the '950 Patent and are not a staple article or commodity of commerce suitable for substantial non-infringing use. DJI contributes to infringement of the '950 Patent by, *inter alia*, promotion, and/or sales of the infringing Accused '950 Products and/or other components (e.g., flight controllers, controllers, mobile applications, etc.) to third parties.

52. DJI also has had knowledge of how DJI infringes the '950 Patent at least as of the filing date of this suit. The Complaint includes a claim chart explaining how DJI infringes the '950 Patent. Ex. E-1.

53. DJI's infringement of the '950 Patent has been and continues to be willful. At least since the filing date of this suit, DJI has deliberately continued to infringe the '950 Patent despite knowing of the existence of the patent and how DJI infringes. Further, DJI has deliberately continued to encourage others' infringement of the '950 Patent, including by continuing to disseminate its marketing and technical materials to customers.

54. DJI's acts of infringement have injured and damaged TII and will continue to injure and damage TII. TII is therefore entitled to recover from DJI the damages it has sustained as a result of DJI's wrongful and continued acts in an amount to be proven at trial.

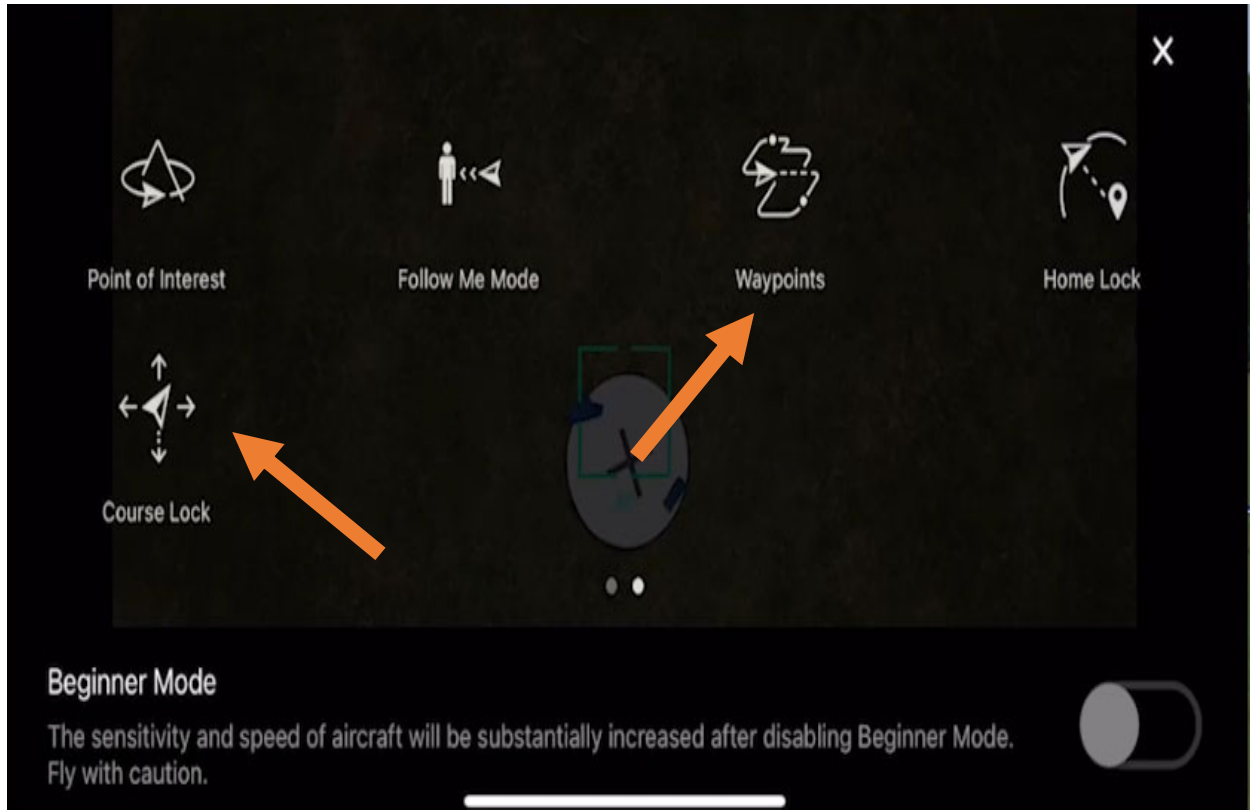
55. DJI's infringement has damaged and will continue to damage TII irreparably, and TII has no adequate remedy at law for its injuries. In addition to actual damages, TII is entitled to a permanent injunction enjoining DJI from infringing the '950 Patent.

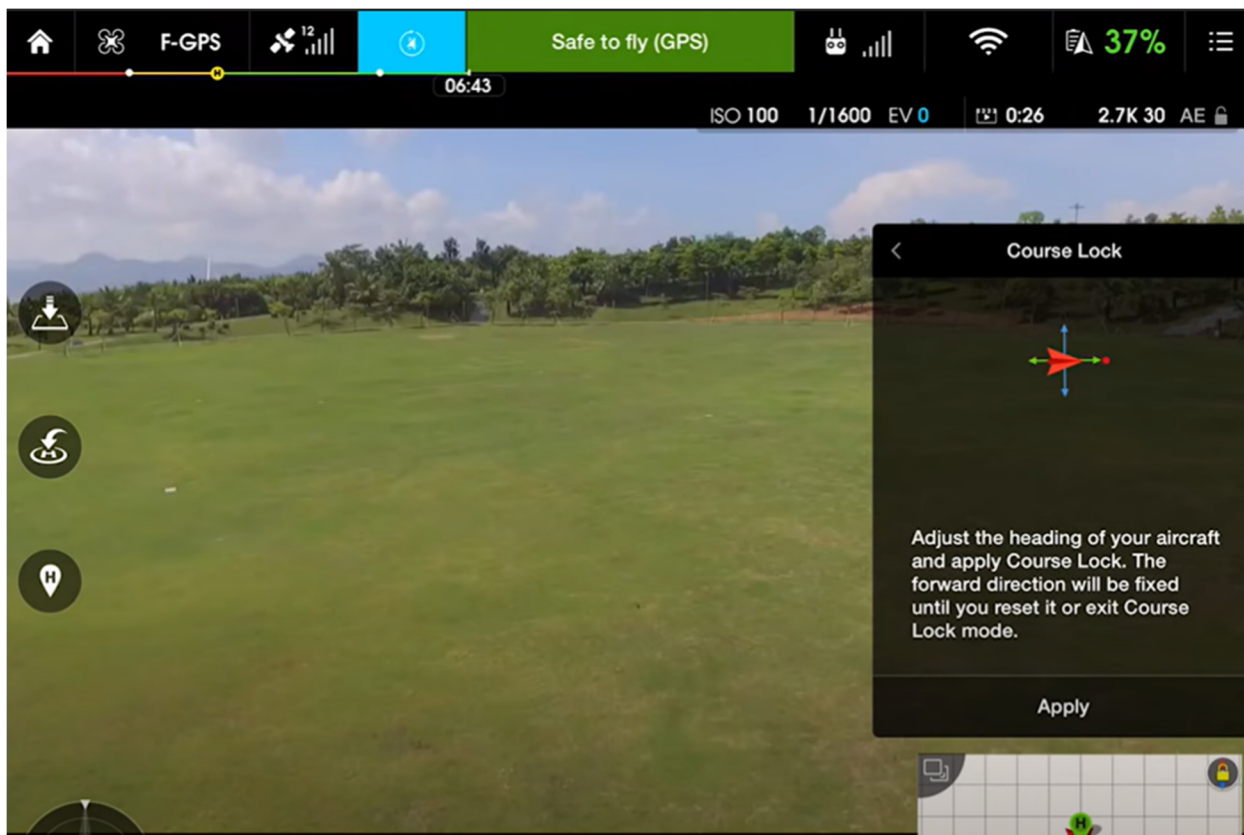
56. TII is entitled to all damages to which it otherwise is entitled because it has complied with 35 U.S.C. § 287 in that it has not manufactured, used, sold, or offered for sale in the United States, or imported into the United States, any product that practices the '950 Patent. TII is not aware of any licensee that has been confirmed to have manufactured, used, sold, or offered for sale in the United States, or imported into the United States, a product that practices the '950 Patent.

COUNT II: INFRINGEMENT OF U.S. PATENT NO. 8,332,082

57. TII re-alleges and incorporates herein by reference the allegations contained in Paragraphs 1–43 of the Complaint as if fully set forth herein.

58. DJI has directly infringed, and continues to directly infringe, the '082 Patent in violation of 35 U.S.C. § 271(a) by using, selling, offering for sale in the United States, and importing into the United States, without authorization, the accused products that practice various claims of the '082 Patent literally or under the doctrine of equivalents. Those products include, for example, any DJI drone that is used in combination with the corresponding mobile applications (e.g., the DJI GO app) to make use of the “Waypoints” and “Course Lock” DJI Intelligent Flight Mode features, such as the DJI Phantom series (e.g., Phantom 3 Advanced, Phantom 3 Professional, Phantom 3 SE, Phantom 3 Standard, Phantom 3 4K, Phantom 3 SE), the Mavic series (e.g., Mavic 3), the Inspire series (e.g., Inspire 1, Inspire 1 Pro, Inspire 1 Raw), and the Matrice series (e.g., the Matrice 100, Matrice 300 RTK, Matrice 600, Matrice 600 Pro (collectively, the “Accused '082 Products”). This feature is shown on a DJI user interface as follows:





59. As a non-limiting example, the Accused '082 Products meet every element of at least Claim 1 of the '082 Patent literally or under the doctrine of equivalents. Claim 1 recites:

1. An aircraft, comprising:

a sensor carried by the aircraft, the sensor being adapted to sense a directional movement of the aircraft;

an actuator carried by the aircraft, the actuator being utilized to control the directional movement of the aircraft; and

a control system in data communication with the aircraft sensor and operably associated with the actuator, the control system having:

a model adapted to decouple the directional movement of the aircraft into a lateral equation of motion and a longitudinal equation of motion;

a lateral control architecture in data communication with the model, the lateral control architecture being adapted to utilize the lateral equation of motion to control the lateral motion of the aircraft;

a longitudinal control architecture in data communication with the model, the longitudinal control architecture adapted to utilize the longitudinal equation of motion to control the longitudinal motion of the aircraft; and

an initialization command logic in data communication with the lateral control architecture and in data communication with the longitudinal control architecture;

wherein the initialization command logic selectively activates the lateral control architecture for controlling the lateral motion of the aircraft and selectively activates the longitudinal control architecture for controlling the longitudinal motion of the aircraft; and

wherein the control system utilizes the lateral control architecture and the longitudinal control architecture to control speed variations of the aircraft while the aircraft maintains a constant vector heading across a ground surface.

59. Exhibit E-2 to this Complaint is a claim chart showing a non-limiting example of how the drones and accompanying controllers or applications that are capable of Waypoints or Course Lock features meet Claim 1 literally or under the doctrine of equivalents. The components and functionality for the drones and accompanying controllers or applications in this chart are representative of the components and functionality present in all Accused '082 Products. DJI thus directly infringed and continues to directly infringe each limitation of at least Claim 1 of the '082 Patent by using, selling, offering for sale in the United States, and importing into the United States, without authorization, the Accused '082 Products.

60. DJI also indirectly infringes at least Claim 1 of the '082 Patent in violation of 35 U.S.C. § 271(b) by taking active steps to encourage and facilitate direct infringement by third parties, including users, partners, affiliates, subsidiaries, and service providers, in the United States with knowledge and the specific intent that its efforts would result in the direct infringement of the '082 Patent. For example, DJI actively induces infringement of the '082 Patent by designing, manufacturing, selling, or distributing the Accused '082 Products and then training its customers and users on the use of the Accused '082 Products, including through the creation and

dissemination of supporting materials, videos, instructions, product manuals, and technical information.

<https://www.youtube.com/watch?v=zvzbMxQ9Hj0;>

<https://www.youtube.com/watch?v=Ns99NiP1HUu;> [https://fcc.report/FCC-ID/2AHAY-](https://fcc.report/FCC-ID/2AHAY-WM3301601)

[WM3301601](https://www.youtube.com/watch?v=Ns99NiP1HUu). DJI has stated that its “marketing efforts include . . . preparing instruction videos

and user manuals.” *DJI Technology, Inc. v. QFO Labs, Inc.*, No. 1-21-CV-00276, Dkt. No. 1 at

¶ 14 (D. Del. Feb. 24, 2021). As another example, DJI actively induces infringement of the ’082

Patent by instructing, encouraging, or requiring their subsidiaries and affiliates, including DJI

Creative Studio LLC, DJI Industrial Inc., and DJI Service LLC to use, sell, offer for sale in the

United States, and importing into the United States, without authorization, the accused products

that practice various claims of the ’082 Patent, such as any DJI drone that is used in combination

with the corresponding mobile applications (e.g., the DJI GO app) to make use of the “Waypoints”

and “Course Lock” DJI Intelligent Flight Mode features. As yet another example, DJI actively

induces infringement of the ’082 Patent through the creation and dissemination of promotional and

marketing materials. <https://www.youtube.com/watch?v=zvzbMxQ9Hj0;>

<https://www.youtube.com/watch?v=Ns99NiP1HUu>. DJI has stated that its “marketing efforts

include preparing marketing videos, . . . providing samples to reviewers of drone products, and

preparing for press conferences and marketing events.” *Id.* DJI’s active inducement is done with

the knowledge and the specific intent that its efforts would result in the direct infringement of the

’082 Patent.

61. At least as of the filing date of this suit, DJI has had knowledge of the ’082 Patent and knowledge of how DJI and third parties infringe that patent. The Complaint includes a claim chart explaining how DJI infringes the ’082 Patent. Ex. E-2.

62. DJI also is liable for contributory infringement of the '082 Patent under 35 U.S.C. § 271(c) by selling or offering for sale the Accused '082 Products and/or other components (e.g., flight controllers, controllers, mobile applications, etc.) in the United States and importing the Accused '082 Products and/or other components (e.g., flight controllers, controllers, mobile applications, etc.) into the United States with knowledge that they are especially designed or adapted to operate in a manner that infringes the '082 Patent and are not a staple article or commodity of commerce suitable for substantial non-infringing use. DJI contributes to infringement of the '082 Patent by, *inter alia*, promotion, and/or sales of the infringing Accused '082 Products and/or other components (e.g., flight controllers, controllers, mobile applications, etc.) to third parties.

63. DJI's infringement of the '082 Patent has been and continues to be willful. At least since the filing date of this suit, DJI has deliberately continued to infringe the '082 Patent despite knowing of the existence of the patent and how DJI infringes. Further, DJI has deliberately continued to encourage others' infringement of the '082 Patent, including by continuing to disseminate its marketing and technical materials to customers.

64. DJI's acts of infringement have injured and damaged TII and will continue to injure and damage TII. TII is therefore entitled to recover from DJI the damages it has sustained as a result of DJI's wrongful and continued acts in an amount to be proven at trial.

65. DJI's infringement has damaged and will continue to damage TII irreparably, and TII has no adequate remedy at law for its injuries. In addition to actual damages, TII is entitled to a permanent injunction enjoining DJI from infringing the '082 Patent.

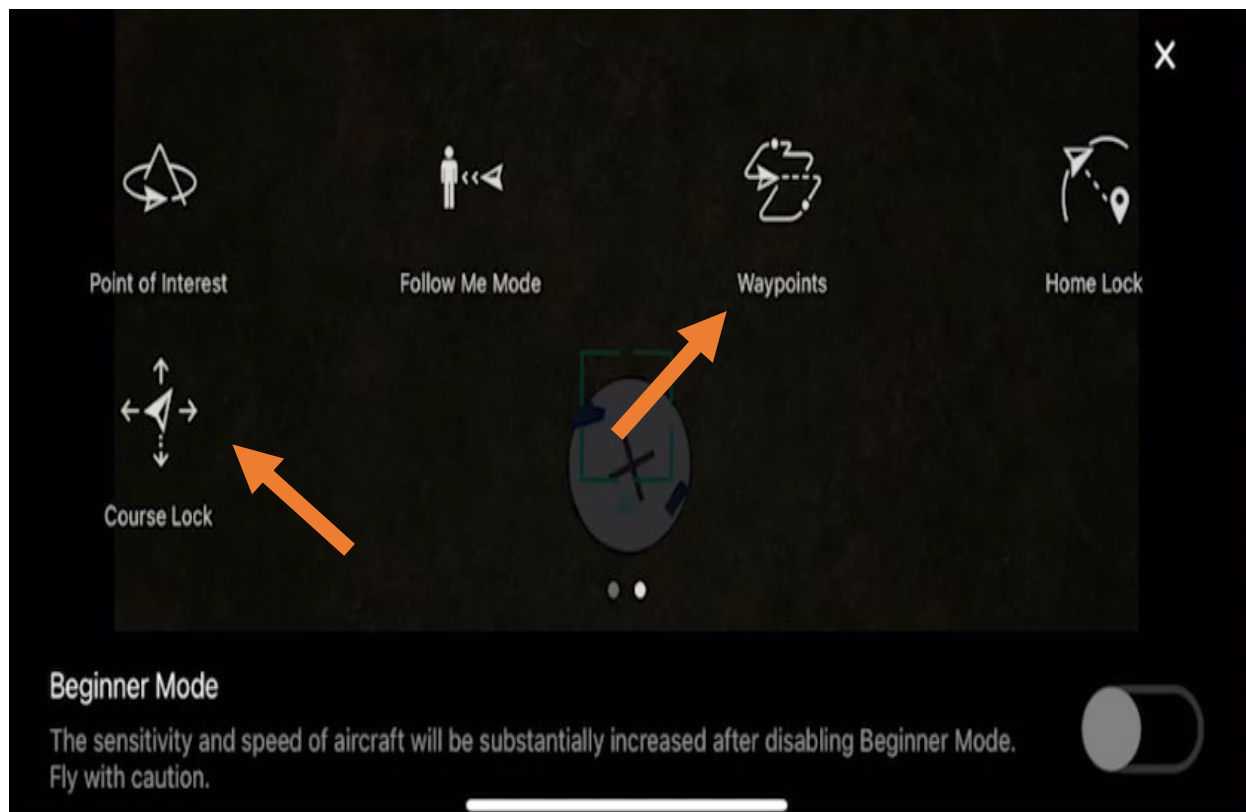
66. TII is entitled to all damages to which it otherwise is entitled because it has complied with 35 U.S.C. § 287 in that it has not manufactured, used, sold, or offered for sale in

the United States, or imported into the United States, any product that practices the '082 Patent. TII is not aware of any licensee that has been confirmed to have manufactured, used, sold, or offered for sale in the United States, or imported into the United States, a product that practices the '082 Patent.

COUNT III: INFRINGEMENT OF U.S. PATENT NO. 8,682,505

67. TII re-alleges and incorporates herein by reference the allegations contained in Paragraphs 1–43 of the Complaint as if fully set forth herein.

68. DJI has directly infringed, and continues to directly infringe, the '505 Patent in violation of 35 U.S.C. § 271(a) by using, selling, offering for sale in the United States, and importing into the United States, without authorization, the accused products that practice various claims of the '505 Patent literally or under the doctrine of equivalents. Those products include, for example, any DJI drone that includes the “Waypoints” or “Course Lock” features, such as the DJI Phantom series (e.g., Phantom 3 Advanced, Phantom 3 Professional, Phantom 3 SE, Phantom 3 Standard, Phantom 3 4K, Phantom 3 SE), the Mavic series (e.g., Mavic 3), the Inspire series (e.g., Inspire 1, Inspire 1 Pro, Inspire 1 Raw), and the Matrice series (e.g., the Matrice 100, Matrice 300 RTK, Matrice 600, Matrice 600 Pro (collectively, the “Accused '505 Products”). This feature is shown on a DJI user interface as follows:



69. As a non-limiting example, the Accused '505 Products meet every element of at least Claim 1 of the '505 Patent literally or under the doctrine of equivalents. Claim 1 recites:

1. A control system for an aircraft, comprising:

a lateral control architecture configured to control lateral motion of the aircraft; and

a longitudinal control architecture configured to control longitudinal motion of the aircraft;

wherein the control system utilizes the lateral control architecture and the longitudinal control architecture to control yaw movement of the aircraft while the aircraft maintains a constant vector heading across a ground surface; and

wherein the aircraft continuously moves in a yaw direction while maintaining the constant vector heading.

70. Exhibit E-3 to this Complaint is a claim chart showing a non-limiting example of how the drones and accompanying controllers or applications that are capable of Waypoints or Course Lock features meets Claim 1 literally or under the doctrine of equivalents. The components

and functionality in this chart are representative of the components and functionality present in all Accused '505 Products. DJI thus directly infringed and continues to directly infringe each limitation of at least Claim 1 of the '505 Patent by using, selling, offering for sale in the United States, and importing into the United States, without authorization, the Accused '505 Products.

71. DJI also indirectly infringes at least Claim 1 of the '505 Patent in violation of 35 U.S.C. § 271(b) by taking active steps to encourage and facilitate direct infringement by third parties, including users, partners, affiliates, subsidiaries, and service providers, in the United States with knowledge and the specific intent that its efforts would result in the direct infringement of the '505 Patent. For example, DJI actively induces infringement of the '505 Patent by designing, manufacturing, selling, or distributing the Accused '505 Products and then training its customers and users on the use of those products and the Waypoints and/or Course Lock features, including through the creation and dissemination of supporting materials, videos, instructions, product manuals, and technical information. <https://www.youtube.com/watch?v=zvvbMxQ9Hj0>; <https://www.youtube.com/watch?v=Ns99NiP1HUs>; <https://fcc.report/FCC-ID/2AHAY-WM3301601>. DJI has stated that its “marketing efforts include . . . preparing instruction videos and user manuals.” *DJI Technology, Inc. v. QFO Labs, Inc.*, No. 1-21-CV-00276, Dkt. No. 1 at ¶ 14 (D. Del. Feb. 24, 2021). As another example, DJI actively induces infringement of the '505 Patent by instructing, encouraging, or requiring their subsidiaries and affiliates, including DJI Creative Studio LLC, DJI Industrial Inc., and DJI Service LLC to use, sell, offer for sale in the United States, and importing into the United States, without authorization, the accused products that practice various claims of the '505 Patent, such as any DJI drone that includes the “Waypoints” or “Course Lock” features. As yet another example, DJI actively induces infringement of the '505 Patent through the creation and dissemination of promotional and marketing materials.

<https://www.youtube.com/watch?v=zvvbMxQ9Hj0;>

<https://www.youtube.com/watch?v=Ns99NiP1HUu>. DJI has stated that its “marketing efforts include preparing marketing videos, . . . providing samples to reviewers of drone products, and preparing for press conferences and marketing events.” *Id.* DJI’s active inducement is done with the knowledge and the specific intent that its efforts would result in the direct infringement of the ’505 Patent.

72. At least as of the filing date of this suit, DJI has had knowledge of how DJI and third parties infringe the ’505 Patent. The Complaint includes a claim chart explaining how DJI infringes the ’505 Patent. Ex. E-3.

73. DJI also is liable for contributory infringement of the ’505 Patent under 35 U.S.C § 271(c) by selling or offering for sale the Accused ’505 Products and/or other components (e.g., flight controllers, controllers, mobile applications, etc.) in the United States and importing the Accused ’505 Products and/or other components (e.g., flight controllers, controllers, mobile applications, etc.) into the United States with knowledge that they are especially designed or adapted to operate in a manner that infringes the ’505 Patent and are not a staple article or commodity of commerce suitable for substantial non-infringing use. DJI contributes to infringement of the ’505 Patent by, *inter alia*, promotion, and/or sales of the infringing Accused ’505 Products and/or other components (e.g., flight controllers, controllers, mobile applications, etc.) to third parties.

74. DJI’s infringement of the ’505 Patent has been and continues to be willful. At least since the filing date of this suit, DJI has deliberately continued to infringe the ’505 Patent despite knowing of the existence of the patent and how DJI infringes. Further, DJI has deliberately

continued to encourage others' infringement of the '505 Patent, including by continuing to disseminate its marketing and technical materials to customers.

75. DJI's acts of infringement have injured and damaged TII and will continue to injure and damage TII. TII is therefore entitled to recover from DJI the damages it has sustained as a result of DJI's wrongful and continued acts in an amount to be proven at trial.

76. DJI's infringement has damaged and will continue to damage TII irreparably, and TII has no adequate remedy at law for its injuries. In addition to actual damages, TII is entitled to a permanent injunction enjoining DJI from infringing the '505 Patent.

77. TII is entitled to all damages to which it otherwise is entitled because it has complied with 35 U.S.C. § 287 in that it has not manufactured, used, sold, or offered for sale in the United States, or imported into the United States, any product that practices the '505 Patent. TII is not aware of any licensee that has been confirmed to have manufactured, used, sold, or offered for sale in the United States, or imported into the United States, a product that practices the '505 Patent.

COUNT IV: INFRINGEMENT OF U.S. PATENT NO. 11,288,972

78. TII re-alleges and incorporates herein by reference the allegations contained in Paragraphs 1–43 of the Complaint as if fully set forth herein.

79. DJI has directly infringed, and continues to directly infringe, the '972 Patent in violation of 35 U.S.C. § 271(a) by using, selling, offering for sale in the United States, and importing into the United States, without authorization, the accused products that practice various claims of the '972 Patent literally or under the doctrine of equivalents. Those products include, for example, any DJI drone and/or controller that uses or facilitates DJI's FlightHub2 functionality, such as the Matrice series (e.g., Matrice 300 RTK, Matrice30 Series), DJI Dock and controllers (e.g., Cendence, Remote Controller, and Smart Controller) (collectively, the "Accused '972

Products”). DJI’s FlightHub 2 software monitors air traffic, including drones within the fleet, and utilizes geofencing to implement “safety zones,” including to impose Temporary Flight Restrictions (TFRs) during major events or natural disasters.

80. As a non-limiting example, the Accused ’972 Products meet every element of at least Claim 15 of the ’972 Patent literally or under the doctrine of equivalents. Claim 15 recites:

15. An autonomous vehicle fleet control system, comprising:

a vehicle;

a communications network; and

a fleet controller in communication with the vehicle by way of the communications network, the fleet controller configured to:

obtain, from a master schedule, a mission for a vehicle of a fleet of autonomous vehicles, wherein the mission is associated with a mission entry of the master schedule;

identify a flight path associated with the mission;

verify a usability of the flight path with a unmanned aircraft system (UAS) traffic management (UTM), wherein the UTM performs checking on the flight path for traffic in the flight path, availability of the flight path due to flight restrictions and requirements for use of the flight path;

modify the flight path according to data from the UTM in response to the UTM indicating that the usability of the flight path is not verified;

generate vehicle commands according to mission parameters associated with the mission based on the flight path;

maintain a persistent connection with the vehicle through the communications network;

send the vehicle commands to the vehicle using the connection, wherein the vehicle is configured to receive the vehicle command and execute the mission according to the vehicle commands; and

monitor operation of the vehicle during performance of the mission.

81. Exhibit E-4 to this Complaint is a claim chart showing a non-limiting example of how FlightHub2 meets Claim 15 literally or under the doctrine of equivalents. The components

and functionality for FlightHub2 in this chart are representative of the components and functionality present in all Accused '972 Products. DJI thus directly infringed and continues to directly infringe each limitation of at least Claim 15 of the '972 Patent by using, selling, offering for sale in the United States, and importing into the United States, without authorization, the Accused '972 Products.

82. DJI also indirectly infringes at least Claim 15 of the '972 Patent in violation of 35 U.S.C. § 271(b) by taking active steps to encourage and facilitate direct infringement by third parties, including users, partners, affiliates, subsidiaries, and service providers, in the United States with knowledge and the specific intent that its efforts would result in the direct infringement of the '972 Patent. For example, DJI actively induces infringement of the '972 Patent by designing, manufacturing, selling, or distributing the Accused '972 Products and then training its customers and users on the use of those products and how to use the route planning and mission management functionality, including through the creation and dissemination of supporting materials, videos, instructions, product manuals, and technical information. <https://www.dji.com/flighthub-2/downloads>; <https://www.dji.com/flighthub-2/video>. DJI has stated that its “marketing efforts include . . . preparing instruction videos and user manuals.” *DJI Technology, Inc. v. QFO Labs, Inc.*, No. 1-21-CV-00276, Dkt. No. 1 at ¶ 14 (D. Del. Feb. 24, 2021). As another example, DJI actively induces infringement of the '972 Patent by instructing, encouraging, or requiring their subsidiaries and affiliates, including DJI Creative Studio LLC, DJI Industrial Inc., and DJI Service LLC to use, sell, offer for sale in the United States, and importing into the United States, without authorization, the accused products that practice various claims of the '972 Patent, such as , any DJI drone and/or controller that uses or facilitates DJI’s FlightHub2 functionality. As yet another example, DJI actively induces infringement of the '972 Patent through the creation and

dissemination of promotional and marketing materials, including providing trials to DJI users. <https://www.dji.com/flighthub-2>. DJI has stated that its “marketing efforts include preparing marketing videos, . . . providing samples to reviewers of drone products, and preparing for press conferences and marketing events.” *Id.* DJI’s active inducement is done with the knowledge and the specific intent that its efforts would result in the direct infringement of the ’972 Patent.

83. At least as of the filing date of this suit, DJI has had knowledge of the ’972 Patent and knowledge of how DJI and third parties infringe that patent. The Complaint includes a claim chart explaining how DJI infringes the ’972 Patent. Ex. E-4.

84. DJI also is liable for contributory infringement of the ’972 Patent under 35 U.S.C § 271(c) by selling or offering for sale the Accused ’972 Products and/or other components (e.g., flight controllers, controllers, mobile applications, etc.) in the United States and importing the Accused ’972 Products and/or other components (e.g., flight controllers, controllers, mobile applications, etc.) into the United States with knowledge that they are especially designed or adapted to operate in a manner that infringes the ’972 Patent and are not a staple article or commodity of commerce suitable for substantial non-infringing use. DJI contributes to infringement of the ’972 Patent by, *inter alia*, promotion, and/or sales of the infringing Accused ’972 Products and/or other components (e.g., flight controllers, controllers, mobile applications, etc.) to third parties.

85. DJI’s infringement of the ’972 Patent has been and continues to be willful. At least since the filing date of this suit, DJI has deliberately continued to infringe the ’972 Patent despite knowing of the existence of the patent and how DJI infringes. Further, DJI has deliberately continued to encourage others’ infringement of the ’972 Patent, including by continuing to disseminate its marketing and technical materials to customers.

86. DJI's acts of infringement have injured and damaged TII and will continue to injure and damage TII. TII is therefore entitled to recover from DJI the damages it has sustained as a result of DJI's wrongful and continued acts in an amount to be proven at trial.

87. DJI's infringement has damaged and will continue to damage TII irreparably, and TII has no adequate remedy at law for its injuries. In addition to actual damages, TII is entitled to a permanent injunction enjoining DJI from infringing the '972 Patent.

88. TII is entitled to all damages to which it otherwise is entitled because it has complied with 35 U.S.C. § 287 in that it has not manufactured, used, sold, or offered for sale in the United States, or imported into the United States, any product that practices the '972 Patent. TII is not aware of any licensee that has been confirmed to have manufactured, used, sold, or offered for sale in the United States, or imported into the United States, a product that practices the '972 Patent.

JURY DEMAND

89. TII hereby demands a jury trial on all issues so triable.

PRAYER FOR RELIEF

WHEREFORE, TII respectfully requests that this Court enter:

- A. A judgment declaring that DJI infringed each of the asserted patents;
- B. A judgment awarding damages to TII for such infringement, including enhanced damages under 35 U.S.C. § 284 and prejudgment and post-judgment interest, without any limitation by 35 U.S.C § 287;
- C. An injunction against Defendants' infringement of the asserted patents;
- D. An assessment of costs, including awarding TII its attorneys' fees under 35 U.S.C. 285 or as otherwise permitted by law;
- E. A judgment awarding all other costs and relief that the Court deems just and proper.

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Respectfully submitted,

/s/ Melissa R. Smith

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