

**UNITED STATES DISTRICT COURT
DISTRICT OF MINNESOTA**

QFO Labs, Inc.

Civil Action No.: 017-CV-01100 (JRT/HB)

Plaintiff,

v.

Brookstone Stores, Inc.

Defendant.

AMENDED COMPLAINT AND JURY DEMAND

Plaintiff QFO Labs Inc. (“Plaintiff”/“QFO”) for its Amended Complaint for patent infringement against Defendant Brookstone Stores, Inc. (“Defendant”/“Brookstone”) under the patent laws of the United States, Title 35 United States Code, states and alleges as follows:

THE PARTIES

1. Plaintiff QFO is a Delaware Corporation, with its principal place of business located at 10149 Johnson Avenue South, Bloomington, Minnesota, 55437.

2. On information and belief, Defendant Brookstone is a New Hampshire public domestic corporation, with its principal place of business at

Brookstone 1 Innovation Way, Merrimack, New Hampshire 03054. Brookstone is authorized to conduct business in Minnesota as a foreign business corporation and has a registered office address located at 2345 Rice Street, Suite 230, Roseville, Minnesota, 55113.

NATURE OF THE ACTION

3. This is an action for infringement of Plaintiff's three patents, United States Patent Nos. 7,931,293 (hereinafter "the '239 Patent"), 9,732,532 (hereinafter "the '532 Patent"), and 9,645,580 (hereinafter "the '580 Patent") pursuant to United States Patent Act, 35 U.S.C. § 1 *et seq.*, including at least 35 U.S.C. §§271(a), 271(b) and 281 based on Defendant's infringing conduct, including without limitation Defendant's sale and offers to sell its infringing products.

JURISDICTION AND VENUE

4. This Court has original and exclusive jurisdiction over the subject matter of this action under at least 28 U.S.C. §§ 1331 and 1338(a) because this action arises under the United States Patent Act, 35 U.S.C. § 1 *et seq.*

5. Venue is proper in this District under 28 U.S.C. §§ 1391(b), (c) and 1400(b). On information and belief, Defendant has committed or induced acts of infringement, and/or a substantial part of the events, omissions or infringement giving rise to Plaintiff's claims have occurred in this District.

6. Defendant is subject to this Court's specific personal jurisdiction pursuant to the Due Process Clause of the United States Constitution and Minnesota's Long Arm Statute, Minn. Stat. § 543.19. On information and belief, Defendant has transacted business in the State of Minnesota, actively infringed and/or induced infringement in Minnesota, and/or has established regular and systematic business contacts with the State of Minnesota and continue to conduct such business in the State through the sale of Defendant's drone products.

FACTUAL BACKGROUND

A. The '239 Patent.

7. On April 26, 2011, the United States Patent and Trademark Office duly and lawfully issued the '239 Patent, entitled "HOMEOSTATIC FLYING HOVERCRAFT," identifying Brad Pedersen and Peter Spirov as inventors. A true and correct copy of the '239 Patent is attached hereto as **Exhibit A**, which is incorporated by reference as if fully set forth herein.

8. All rights, title and interest in and to the '239 Patent were assigned by the inventors by assignments recorded to Qaxu Technologies, Inc., which in turn was assigned to Plaintiff by an assignment recorded on January 19, 2013. Plaintiff is the sole owner of the '239 Patent, and has acquired all rights related to the '239 Patent, including the right to sue for Defendant's infringing acts.

9. The '239 Patent is directed to a homeostatic flying hovercraft that preferably utilizes two pairs of counter-rotating motors that drive corresponding blades to generate lift and utilizes a homeostatic control system to create a remote control flying craft, or drone, that is easily controlled. The homeostatic control system controls the flying craft with radio signals from a handheld controller that operates in what is referred to as the "tilt-to-fly mode."¹

B. The '532 Patent.

10. On July 7, 2015, the United States Patent and Trademark Office duly and lawfully issued the '532 Patent, entitled "HOMEOSTATIC FLYING HOVERCRAFT," identifying Brad Pedersen and Peter Spirov as inventors. A true and correct copy of the '532 Patent is attached hereto as **Exhibit B**, which is incorporated by reference as if fully set forth herein.

11. All rights, title and interest in and to the '532 Patent were assigned by the inventors by assignments recorded to Qaxu Technologies, Inc., which in turn was assigned to Plaintiff by an assignment recorded on January 19, 2013. Plaintiff is the sole owner of the '532 Patent, and has been the sole owner of the '532 Patent throughout the period of Defendant's infringing acts.

¹ This description of the '239 Patent is intended to provide a general explanation of the patent at issue. It is not intended to be limiting and nothing herein should be construed as a legal description of the '239 Patent's claims or limitations.

12. The '532 Patent is a continuation of the '239 Patent and is directed to a homeostatic flying hovercraft that preferably utilizes at least two pairs of counter-rotating motors that drive corresponding blades to generate lift and utilizes a homeostatic control system to create a remote control flying craft, or drone, that is easily controlled. The homeostatic control system controls the flying craft with radio signals from a handheld controller that operates in what is referred to as the "tilt-to-fly mode."² The handheld controller can be implemented as an application which may, for example, be downloaded to an Apple® phone. In operation, the flying craft is controlled by the application and it mimics the orientation of the handheld phone.

C. The '580 Patent.

13. On September 21, 2016, QFO filed a prioritized patent examination under 37 CFR § 1.102(e) for U.S. Patent Application No. 15/272,414 entitled "RADIO-CONTROLLED FLYING CRAFT."

14. On May 9, 2017, the United States Patent and Trademark Office duly and lawfully issued the '580 Patent, entitled "RADIO-CONTROLLED FLYING CRAFT," identifying Brad Pedersen and Peter Spirov as inventors. A true and

² This description of the '532 Patent is intended to provide a general explanation of the patent at issue. It is not intended to be limiting and nothing herein should be construed as a legal description of the '532 Patent's claims or limitations.

correct copy of the '580 Patent is attached hereto as Exhibit C which is incorporated by reference as if fully set forth herein.

15. All rights, title and interest in and to the '580 Patent belong to Plaintiff. Plaintiff is the sole owner of the '580 Patent, and has been the sole owner of the '580 Patent throughout the period of Defendant's infringing acts.

16. The '580 Patent is a continuation of the '239 Patent and the '532 Patent and is directed to a homeostatic flying hovercraft and a radio controlled flying saucer toy employing the principals of a homeostatic flying hovercraft that preferably utilizes at least two pairs of counter-rotating motors that drive corresponding blades to generate lift and utilizes a homeostatic control system to create a remote control flying craft, or drone, that is easily controlled. The homeostatic control system controls the flying craft with radio signals in response to software instructions configured to cause a control system in a handheld controller to operate in what is referred to as the "tilt-to-fly mode."³ The software instruction may, for example, be downloaded to an Apple® phone. In operation, the flying craft is controlled by the application and it mimics the orientation of the handheld phone.

³ This description of the '580 Patent is intended to provide a general explanation of the patent at issue. It is not intended to be limiting and nothing herein should be construed as a legal description of the '580 Patent's claims or limitations.

D. Defendant's Infringing Conduct.

17. On information and belief, Defendant makes and sells various technological products, including remote control flying craft, or drones, and software applications for download to a handheld device, such as a smart phone, that are configured to control such drones (hereinafter the "Infringing Drone Products.")

18. Defendant's Infringing Drone Products include, without limitation, the Flight Force Expedition Drone⁴, and the related variations thereof, among others. (See <http://www.brookstone.com/pd/flight-force-expedition-drone/317881p.html> (accessed April 6, 2017); attached hereto as **Exhibit D** is a true and correct copy of a screenshot of the prior webpage accessed on April 6, 2017.)

19. The downloadable applications that comprise the software instructions for the control system inside a handheld device, such as a smart phone, include, without limitation, the Flight Force Expedition Drone App, the Flight Force HD/Wi-Fi Drone and the related variations thereof, among others. (See *Apple App Store - Flight Force Expedition Drone App* (accessed April 6, 2017); attached hereto as **Exhibit E** is a true and correct copy of a screenshot of the Flight Force Expedition Drone App from the Apple® Store accessed on April 6,

⁴ Defendant has interchangeably referred to its drones as the "Flight Force Drones" and the "FlightForce Drones." Those terms are deemed synonymous for the purpose of this Complaint.

2017; attached hereto as **Exhibit F** is a true and correct copy of a screenshot of the Flight Force Expedition Drone App from the Google® App Store accessed on April 6, 2017; attached hereto as **Exhibit G** is a true and correct copy of a screenshot of the Flight Force HD/WiFi Drone App from the Apple® Store accessed on June 26, 2017.)

20. On information and belief, Defendant's Infringing Drone Products incorporate important and valuable technical innovations embodied in the '239 Patent, including, without limitation, the tilt-to-fly mode for operating the drone. Attached hereto as **Exhibit H** is a claim chart analyzing how each element of Claims 1, 4, 6 and 8 of Plaintiff's '239 Patent are found in Defendant's Flight Force Expedition Drone, which infringes Plaintiff's '239 Patent, which is incorporated by reference as if fully set forth herein.

21. On information and belief, Defendant's Infringing Drone Products also incorporate important and valuable technical innovations embodied in the '532 Patents including, without limitation, the tilt-to-fly mode for operating the drone. Attached hereto as **Exhibit I** is a claim chart analyzing how each element of Claims 1 and 21 of Plaintiff's '532 Patent are found in Defendant's Flight Force Expedition Drone, which infringes Plaintiff's '532 Patent, which is incorporated by reference as if fully set forth herein.

22. On information and belief, Defendant's Infringing Drone Products incorporate important and valuable technical innovations embodied in the '580 Patent including, without limitation, the tilt-to-fly mode for operating the drone. **Exhibit J** is incorporated by Attached hereto as **Exhibit J** is a claim chart analyzing how each element of Claims 1, 7, 11 and 13 of Plaintiff's '580 Patent are found in Defendant's Flight Force Expedition Drone, and which elements are found within Defendant's Infringing Drone Products similar to the Flight Force Expedition Drone and which likewise infringe Plaintiff's '580 Patent. reference as if fully set forth herein.

23. By selling, or offering for sale or importing the Infringing Drone Products, which embody Plaintiff's rights in the '239, '532 and '580 Patents, or by inducing others to so act, Defendant has directly infringed, continue to infringe, and/or have induced others to infringe Plaintiff's intellectual property rights and, in particular, Plaintiff's '239, '532 and '580 Patents. (See <https://www.youtube.com/watch?v=zH2LgEwiOew> (accessed April 7, 2017), which link contains a video demonstrating the tilt-to-fly mode of the Infringing Drone Products and, specifically, how Defendant's Flight Force Expedition Drone, permits operation of those Products that directly infringe at least Claims 1, 4, 6 and 8 of the '239 Patent, Claims 1 and 21 of the '532 Patent, and Claims 1, 7, 11, and 13 of the '580 Patent; see also **Exhibit K**, "Brookstone Flight Force

Expedition Drone User Manual,” a true and correct copy of which is attached hereto and incorporated by reference as if fully set forth herein.)

24. Additionally, by selling, offering for sale or importing the Infringing Drone Products, which embody Plaintiff’s rights in the ‘239, ‘532 and ‘580 Patents, or by inducing others to so act, Defendant has profited from the sale of its Infringing Drone Products without authorization and without compensating Plaintiff for the exploitation of Plaintiff’s intellectual property rights.

E. Defendant Was a Distributor for Plaintiff’s Products.

25. From 2013 to 2014, Plaintiff and Defendant were parties to at least one purchase agreement whereby Defendant purchased Plaintiff’s product, the QuadFighter QF-1, for retail distribution on Defendant’s website and through Defendant’s retail stores. Attached hereto as **Exhibit L** is a true and correct copy of Purchase Order 05736 ordered August 13, 2013 for shipment by October 30, 2013.

26. The QuadFighter QF-1 is a product Plaintiff designed and produced that embodies the claimed inventions of the ‘239 Patent, ‘532 Patent and the ‘580 Patent. The packaging of the QuadFighter QF-1 product was marked with the ‘239 Patent at the time it was distributed by Defendant. Attached hereto as **Exhibit M** is a true and correct copy of a photograph of the side panel of the

packaging of the QuadFighter QF-1 product; *see also* https://www.qfolabs.com/quad_fighter/ (accessed April 7, 2017.)

27. On information and belief, Defendant has known of the existence of the '239 Patent since at least October 30, 2013, and its acts of infringement have been willful and in disregard of the '239 Patent, and without any reasonable basis for believing that Defendant had a right to engage in its infringing conduct.

28. On information and belief, Defendant has known of the existence of the '532 Patent since at least July 7, 2015, which was the issue date of the '532 Patent, and its acts of infringement have been willful and in disregard of the '532 Patent, and without any reasonable basis for believing that Defendant had a right to engage in its infringing conduct.

29. Notwithstanding their knowledge of the '239 Patent, '532 Patent and the '580 Patents, Defendant has, on information and belief, engaged in its infringing conduct by selling, offering for sale or importing the Infringing Drone Products, and/or inducing others to so act.

30. Based on Defendant's infringing conduct, Plaintiff has been damaged because it has been deprived of the benefits associated and derived from their '239 Patent, '532 Patent and the '580 Patent, and has been irreparably harmed, thus entitling Plaintiff to injunctive relief enjoining Defendant and its agents, servants, employees, representatives, affiliates, and all others acting on in

active concert therewith from infringing the '239 Patent, '532 Patent and the '580 Patent.

COUNT I
INFRINGEMENT OF U.S. PATENT NO. 7,931,239

31. Plaintiff restates and realleges the foregoing paragraphs in this Complaint as though fully set forth in this Count.

32. On information and belief, Defendant has infringed and continues to infringe the '239 Patent, on information and belief, by making, selling, and/or offering for sale within the United States, and/or importing into the United States, including within this District, its Infringing Drone Products, which embody the inventions claimed in Claims 1, 4, 6 and 8 of the '239 Patent, at least as established in the claim chart attached as **Exhibit H**, and which comprise acts of infringement under 35 U.S.C. § 271(a).

33. On information and belief, Defendant has been and is inducing infringement of Claims 1, 4, 6, and 8 of the '239 Patent by actively and knowingly inducing others to make, use, sell, offer for sale or import Defendant's Infringing Drone Products that embody or use the inventions claimed in the '239 Patent, which constitutes infringement under 35 U.S.C. § 271(b). Defendant's conduct includes, without limitation, inducing Defendant's drone customers to download an application from the Apple® Store for an Apple® phone or from the Google®

Store for an Android® phone, which application can be used to control Defendant's Infringing Drone Products in a manner consistent with at least the limitations of Claims 1, 4, 6 and 8 of Plaintiff's '239 Patent. (See Exhibits D, E, F, G, H and I.) The software download is used to operate the Infringing Drone Products in a tilt-to-fly mode in which an orientation of the body of the flying craft mimics an orientation of the phone operating as a handheld controller as claimed in Claims 1, 4, 6, and 8 of the '239 Patent. (See *id.*)

34. On information and belief, Defendant has known of the existence of the '239 Patent since at least as early as October 30, 2013, and its acts of infringement have been willful and in disregard for the '239 Patent, without any reasonable basis for believing that it has a right to engage in the infringing conduct.

35. On information and belief, Defendant has acted and/or is continuing to act despite an objectively high likelihood that its actions constituted infringement of a valid patent, and knew or should have known of that objectively high risk at least as of October 30, 2013. Thus, on information and belief, Defendant's infringement of the '239 Patent has been, and continues to be knowing, intentional and willful, thereby entitling Plaintiff to enhanced damages and reasonable attorneys' fees and costs under 35 U.S.C. § 284.

36. As a result of Defendant's infringement of the '239 Patent, Plaintiff has suffered damages and is entitled to a judgment in an amount adequate to compensate for Defendant's infringement, but in no event less than a reasonable royalty for the use made of Plaintiff's inventions by Defendant, together with interest and costs as fixed by the Court, pursuant to 35 U.S.C. § 284.

37. Defendant's acts of infringement of the '239 Patent have caused and will continue to cause Plaintiff immediate and irreparable harm unless such infringing activities by Defendant and its agents, servants, employees, representatives, affiliates, and all others acting on in active concert therewith are enjoined by this Court pursuant to 35 U.S.C. § 283. Plaintiff has no adequate remedy at law.

COUNT II
INFRINGEMENT OF U.S. PATENT NO. 9,073,532

38. Plaintiff restates and realleges the foregoing paragraphs in this Complaint as though fully set forth in this Count.

39. On information and belief, Defendant has infringed and continues to infringe the '532 Patent, on information and belief, by making, selling, offering for sale and/or using within the United States, and/or importing into the United States, including within this District, its Infringing Drone Products, which embody the inventions claimed in Claims 1 and 21 of the '532 Patent as

established in the claim chart attached as **Exhibit I**, and which comprise acts of infringement under 35 U.S.C. § 271(a).

40. On information and belief, Defendant has been and is inducing infringement of Claims 1 and 21 of the '532 Patent by actively and knowingly inducing others to make, use, sell, offer for sale or import Defendant's Infringing Drone Products that embody or use the inventions claimed in the '532 Patent, which constitutes infringement under 35 U.S.C. § 271(b). That conduct by Defendant includes, without limitation, inducing Defendant's drone customers to download an application from the Apple® Store for an Apple® phone or from the Google® Store for an Android® phone, which application can be used to control Defendant's Infringing Drone Products in a manner consistent with at least the limitations of Claims 1 and 21 of Plaintiff's '532 Patent. (See **Exhibits D, E, F, G, I and J**.) The software download is used to operate the Infringing Drone Products in a tilt-to-fly mode in which an orientation of the body of the flying craft mimics an orientation of the phone operating as a handheld controller as claimed in Claims 1 and 21 of the '532 Patent. (See *id.*)

41. On information and belief, Defendant has known of the existence of the '532 Patent since at least as early as July 7, 2015, which was the issue date of the '532 Patent, and its acts of infringement have been willful and in disregard

for the '532 Patent, without any reasonable basis for believing that it has a right to engage in the infringing conduct.

42. On information and belief, Defendant has acted and/or is continuing to act despite an objectively high likelihood that its actions constituted infringement of a valid patent, and knew or should have known of that objectively high risk at least as of July 7, 2015. Thus, on information and belief, Defendant's infringement of the '532 Patent has been, and continues to be knowing, intentional and willful, thereby entitling Plaintiff to enhanced damages and reasonable attorneys' fees and costs under 35 U.S.C. § 284.

43. As a result of Defendant's infringement of the '532 Patent, Plaintiff has suffered damages and is entitled to a judgment in an amount adequate to compensate for Defendant's infringement, but in no event less than a reasonable royalty for the use made of Plaintiff's inventions by Defendant, together with interest and costs as fixed by the Court, pursuant to 35 U.S.C. § 284.

44. Defendant's acts of infringement of the '532 Patent have caused and will continue to cause Plaintiff immediate and irreparable harm unless such infringing activities by Defendant and its agents, servants, employees, representatives, affiliates, and all others acting on in active concert therewith are enjoined by this Court pursuant to 35 U.S.C. § 283. Plaintiff has no adequate remedy at law.

**COUNT III
INFRINGEMENT OF U.S. PATENT NO. 9,645,580**

45. Plaintiff restates and realleges the foregoing paragraphs in this Complaint as though fully set forth in this Count.

46. On information and belief, Defendant has infringed and continue to infringe the '580 Patent by making, selling, offering for sale and/or using within the United States, and/or importing into the United States, including within this District, its Infringing Drone Products, which embody the inventions claimed in at least Claims 1, 7, 11, and 13 of the '580 Patent as established in the claim chart attached as **Exhibit J** and which comprise acts of infringement under 35 U.S.C. § 271(a).

47. On information and belief, Defendant has sold and/or offered for sale these items, and are continuing to do so, specifically intending to actively encourage third parties to make, use, and/or sell the infringing devices within the United States in a manner that Defendant knows to be infringing.

48. On information and belief, Defendant has induced infringement of at least Claims 1, 7, 11, and 13 of the '580 Patent by inducing and encouraging third parties to sell, make and/or use infringing products, which actions comprise acts of infringement under 35 U.S.C. § 271(b). That conduct by Defendant includes, without limitation, inducing Defendant's drone customers to download an application from the Apple® Store for an Apple® phone or from

the Google® Store for an Android® phone, which application can be used to control Defendant's Infringing Drone Products, such as the Defendant's Flight Force Expedition Drone, in a manner consistent with at least the limitations of Claims 1, 7, 11 and 13 of Plaintiff's '580 Patent. The software download is used to operate the Infringing Drone Products in a tilt-to-fly mode in which an orientation of the body of the flying craft mimics an orientation of the phone operating as a handheld controller as claimed in the '580 Patent.

49. On information and belief, Defendant had knowledge of the '580 Patent, including knowledge of the claims, since at least as early as May 9, 2017, which was the issue date of the '580 Patent.

50. On information and belief, Defendant has acted and/or is continuing to act despite an objectively high likelihood that its actions constituted infringement of a valid patent, and knew or should have known of that objectively high risk since at least as early as May 9, 2017, which was the issue date of the '580 Patent.

51. On information and belief, Defendant's infringement of the '580 Patent has been and continues to be willful and deliberate, in disregard of Plaintiff's rights, entitling Plaintiff to enhanced damages under 35 U.S.C. § 284 and reasonable attorneys' fees and costs.

52. As a result of Defendant's infringement of the '580 Patent, Plaintiff has suffered damages and is entitled to a judgment in an amount adequate to compensate for Defendant's infringement, but in no event less than a reasonable royalty for the use made of Plaintiff's inventions by Defendant, together with interest and costs as fixed by the Court.

53. Defendant's acts of infringement and/or inducement of infringement have also caused and will continue to cause irreparable harm to Plaintiff, thus entitling Plaintiff to injunctive relief enjoining Defendant and its agents, servants, employees, representatives, affiliates, and all others acting on in active concert therewith from infringing the '580 Patent.

PRAYER FOR RELIEF

WHEREFORE, Plaintiff respectfully requests that this Court enter Judgment against Defendant Brookstone Stores, Inc. as follows:

1. For an injunction in favor of Plaintiff and against Defendant preliminary and permanently enjoining Defendant and its officers, directors, agents servants, affiliates, employees, divisions, branches, subsidiaries, parents, and all others in active concert and participation with any of the foregoing persons or entities from infringing, contributing to the infringement of, or inducement infringement of the '239 Patent, the '532 Patent and the '580 Patent, and/or such other equitable relief the Court determines is warranted;

2. For a judgment in favor of Plaintiff and against Defendant determining that Defendant has infringed the '239 Patent, the '532 Patent and the '580 Patent in violation of 35 U.S.C. § 271;

3. For a judgment in favor of Plaintiff and against Defendant awarding Plaintiff damages in accordance with 35 U.S.C. § 284, including all damages adequate to compensate Plaintiff for Defendant's infringement, in no event less than a reasonable royalty, such damages to be determined by a jury, and additionally, ordering an accounting sufficient to adequately compensate Plaintiff, and that such damages be awarded to Plaintiff, together with interest, including prejudgment and post-judgment interest, and costs;

4. For a judgment in favor of Plaintiff and against Defendant determining that Defendant has willfully and deliberately committed acts of patent infringement, and awarding Plaintiff enhanced damages in light of Defendant's willful infringement pursuant to 35 U.S.C. § 284;

5. For a judgment in favor of Plaintiff and against Defendant determining that this is an "exceptional case" pursuant to 35 U.S.C. § 285 and awarding Plaintiff the reasonable legal fees, costs and expenses that Plaintiff has incurred in prosecuting this action; and

6. Any and all other relief, at law or equity, as the Court deems just and proper.

DEMAND FOR JURY TRIAL

Plaintiff demands a trial by jury of all issue so triable by right under Rule 38 of the Federal Rules of Civil Procedure.

Dated: July 6 2017

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