NATURE OF THE ACTION

1. This is a patent infringement action to stop Defendant's infringement of the following patents (collectively, the "Patents-in-Suit"), which were duly and legally issued by the United States Patent and Trademark Office (hereinafter, the "USPTO"), copies of which are attached hereto as **Exhibits A through D**, respectively:

	Patent No.	Title
A.	8,528,854	SELF-RIGHTING FRAME AND
		AERONAUTICAL VEHICLE
B.	9,067,667	SELF-RIGHTING FRAME AND
		AERONAUTICAL VEHICLE
C.	9,216,808	SELF-RIGHTING FRAME AND
		AERONAUTICAL VEHICLE
D.	9,434,462	SELF-RIGHTING FRAME AND
		AERONAUTICAL VEHICLE

- 2. Plaintiff is the owner of the Patents-in-Suit and possesses all right, title and interest in the Patents-in-Suit, including the right to enforce the Patents-in-Suit, the right to license the Patents-in-Suit, and the right to sue Defendant for infringement and recover past damages.
 - 3. Plaintiff seeks injunctive relief and monetary damages.

PARTIES

- 4. AERODYNAMICS is a limited liability company organized and existing under the laws of the State of Florida and maintains its principal place of business at 300 NE 12th Avenue, #601, Hallandale Beach, Florida (Broward County).
- 5. Based upon information and belief after reviewing public information, KYOSHO CORPORATION OF AMERICA is a corporation duly organized and existing under the laws of California since June 2, 1999 and may be served through its registered agent, Toshiki Hara, who is located at 10 Campanero East, Irvine, California 92620.

7. Upon information and belief, Defendant ships, distributes, makes, uses, offers for sale, sells, and/or advertises self-righting frames and aeronautical vehicles, including its Kyosho Space Ball drone (also referred to as the Kyosho "Remote Control RC 360-Degree Flying Sphere") (hereinafter the Accused Products).

JURISDICTION AND VENUE

- 8. This action arises under the Patent Laws of the United States, 35 U.S.C. § 1 et seq., including 35 U.S.C. §§ 271, 281, 283, 284, and 285. This Court has subject matter jurisdiction over this case for patent infringement under 28 U.S.C. §§ 1331 and 1338(a).
- 9. The Court has personal jurisdiction over Defendant because: Defendant has minimum contacts within the State of California and in the Central District of California; Defendant has purposefully availed itself of the privileges of conducting business in the State of California and in the Central District of California; Defendant has sought protection and benefit from the laws of the State of California; Defendant regularly conducts business within the State of California and within the Central District of California, and Plaintiff's causes of action arise directly from Defendant's business contacts and other activities in the State of California and in the Central District of California.
- 10. More specifically, Defendant, directly and/or through its intermediaries, ships, distributes, makes, uses, imports, offers for sale, sells, and/or advertises its products and affiliated services in the United States, the State of California, and the Central District of California. Defendant has committed patent infringement in the State of California and in the Central District of California. Defendant solicits customers in the State of California and in the Central District of California.

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Defendant has many paying customers who are residents of the State of California and the Central District of California and who use Defendant's products in the State of California and in the Central District of California.

- Venue is proper in the Central District of California pursuant to 28 U.S.C. § 1400(b) because Kyosho resides in the state of California.
- 12. Venue is proper pursuant to 28 U.S.C. § 1391(b) and (c) because Kyosho resides in the Central District of California which subjects it to the personal jurisdiction of this Court.

BRIEF HISTORY OF ADVANCED AERODYNAMICS

- In 2009, Advanced Aerodynamics LLC was formed in Florida. Mr. 13. James Dees, a law enforcement officer, bomb technician, and former US Marine infantry officer, together with an engineer, Mr. Max Gaofei Yan, developed a new and unique drone design. The design allows drones to crash in midair, crash-land on the ground in any position, and self-right without human intervention. That design was the first of any aeronautical vehicle in aviation history to operate this way.
- 14. The company began to apply for patents worldwide including the US, Canada, Japan, EU, Australia, China, and Israel. Within a few years, a number of patents had been granted—one country after another. The patent portfolio grew and continues to grow, covering various embodiments of Advanced Aerodynamics' unique and unprecedented design.
- 15. While the patents were pending, the company began to promote this unique and practical technology to a number of companies. The first product to enter the marketplace with this design was called the "ORB." The ORB went on to be sold in Best Buy and a number of other major department stores. Additionally, it won the Hot Product award by CNN Money in 2012. Following this success, a number of different mini-drones with its design, including the Lily Ball, Alien Sphere, XT Flyer

- 16. Advanced Aerodynamics continues its research and development activities in efforts to meet the evolving needs of the market. Some of the top universities in the aviation field are involved in this R&D, one of them being Embry-Riddle Aeronautical University.
- 17. To promote its patented designs and products, Advanced Aerodynamics has for the past 7 years very actively attended as vendors different trade shows and conventions, including CES in Las Vegas, the Hong Kong Toy Fair, the Neuberger Toy Show, and AUVSI Drone and Unmanned System shows in different cities within the US.
- 18. Advanced Aerodynamics' current product offerings includes the XT-001, XT-005, and the XT Kids Racing Drone. Other designs are under development, including the XT-002, which is provisioned with an AR system, and the XT-003, which is equipped with a camera for FPV goggles are under development.
- 19. Advanced Aerodynamics takes a very serious and active role in protecting the intellectual property covered by its patent portfolio. Accordingly, the company has sought to litigate and otherwise enforce its intellectual property rights against a number of major entities that were using its patented design, including, the "Flying Sphere" by Japanese Department of Defense, and the "Atlas Flying Ball" by Unmanned Cowboys in the US. Advanced Aerodynamics will continue to look for licensing and business opportunities and when needed, enforce its intellectual property on companies that sell infringing products in order to protect their business operations.

ADVANCED AERODYNAMICS' ASSERTED PATENTS

20. The Patents-in-Suit were duly and legally issued by the United States Patent and Trademark Office on September 10, 2013 (the '854 Patent), June 30, 2015

(the '667 Patent), December 22, 2015 (the '808 Patent) and September 6, 2016 (the			
'462 Patent) after full and fair examinations. Plaintiff is the owner of the Patents-in-			
Suit, and possesses all right, title and interest in the Patents-in-Suit including the right			
to enforce the Patents-in-Suit, the right to license the Patents-in-Suit, and the right to			
sue Kyosho for infringement and recover past damages.			
21 The Patents-in-Suit were duly and legally issued by the United States			

- 21. The Patents-in-Suit were duly and legally issued by the United States Patent and Trademark Office after full and fair examinations.
- 22. Defendant sells, advertises, offers for sale, uses, or otherwise self-righting frames and aeronautical vehicles, including the Accused Products, to its customers, either directly or through third-party vendors. *See* Exhibit E (offer for sale of Space Ball drone).
- 23. According to public information, Defendant owns, operates, advertises, and/or controls the websites http://www.kyoshoamerica.com/ through which Defendant advertises, offers to sell, provides and/or educates customers about its products. The Accused Products are offered for sale "by Kyosho" at the following locations online <a href="https://www.amazon.com/Space-Ball-Infrared-Helicopter-Gyroscope/dp/B009NNM5QM/ref=sr_1_1?keywords=space+ball+remote+control+sphere&qid=1553703093&s=gateway&sr=8-1, <a href="https://www.amazon.com/Space-Ball-Infrared-Helicopter-Ball-Infrared-Ball-Infrared-Ball-Infrared-Ball-Infrared-Ball-Infrared-Ball-Infrared-Ball-Infrared-Ball-Infrared-Ball-Infrared-Ball-Infrared-Ball-Infrared-Ball-Infrared-Ball-Infrared-Ball-Infrared-Ball-Infrared-Ball-Infrared-Ball-Infrared-Ball-Infrared-Ball-Infra
- 20 <u>Gyroscope/dp/B009NNM5DU/ref=sr_1_2?keywords=space+ball+remote+control+s</u> 21 <u>phere&qid=1553703251&s=gateway&sr=8-2,</u> and
- 22 https://www.japantrendshop.com/kyosho-space-ball-p-1526.html?a aid=7aaad3d9.

COUNT I

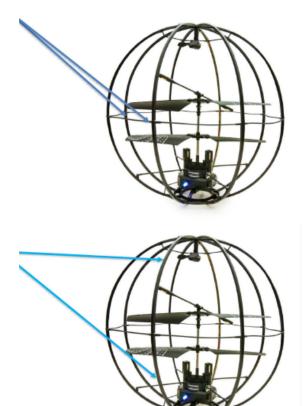
(INFRINGEMENT OF U.S. PATENT NO. 8,528,854)

24. Plaintiff re-alleges and incorporates by reference each of Paragraphs above.

25. Plaintiff is informed and believes that Kyosho has infringed and continues to infringe the '854 Patent, either literally or under the doctrine of equivalents, through the manufacture and sale of infringing products under Kyosho's Space Ball brand, as incorporated into the Accused Products. Based upon public information, Kyosho has infringed and continues to infringe one or more claims of the '854 Patent, including Claim 1, because it ships distributes, makes, uses, imports, offers for sale, sells, and/or advertises devices that form a self-righting frame assembly for an aeronautical vehicle (the "Space Ball" drone has a frame assembly for an aeronautical vehicle (flying machine, drone, etc.). The frame assemble causes the Space Ball drone to self-right when it falls to the ground at any position: either in any inverted state (other than right-side up). A pictorial example of the Accused Products is shown below:

The frame assembly has more than two vertical frames with an uninterrupted, continuous peripheral edge between the top portion of the frame assembly and the base portion of the frame assembly, as shown below:

The drone has at least two vertically oriented frames



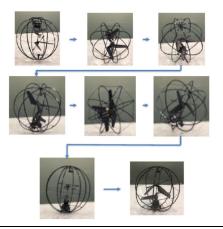
Top Portion

Base Portion

The frames define a central void and have a central vertical axis with two of the frames being in a fixed relationship. There is a weighted mass positioned at the bottom of the frame assembly and along a central vertical axis to create a center of gravity near the bottom of the assembly



and have an apex that provides an initial instability to start a self-righting process that returns the products to an upright position.



- 26. Despite knowledge of the '854 Patent as early as the date of service of the Original Complaint in this action, based upon public information, Kyosho continues to encourage, instruct, enable, and otherwise cause its customers to use its products and services, in a manner which infringes the '854 Patent.
- 27. Based upon public information, Kyosho has intentionally induced and continues to induce infringement of one or more claims of the '854 Patent in this district and elsewhere in the United States, by its intentional acts which have successfully, among other things, encouraged, instructed, enabled, and otherwise caused Kyosho's customers to use the Accused Products and Services in an infringing manner. To the extent that Kyosho is not the only direct infringer of the '854 Patent, it instructs its customers on how to infringe the '854 Patent through its support and sales to them, including their government and commercial clients. *See* https://www.amazon.com/Space-Ball-Infrared-Helicopter-Gyroscope/dp/B009NNM5DU/ref=sr_1_3?crid=39KOJIZ8CO08M&keywords=kyo
- sho+helicopters&qid=1553687837&s=gateway&sprefix=kyosho+heli%2Ctoys-and-games%2C127&sr=8-3/ (last visited March 27, 2019).
- 28. Defendant's aforesaid activities have been without authority and/or license from Plaintiff.
- 29. Plaintiff is entitled to recover from Defendant the damages sustained by Plaintiff as a result of Defendant's wrongful acts in an amount subject to proof at trial, which, by law, cannot be less than a reasonable royalty, together with interest and costs as fixed by this Court under 35 U.S.C. § 284.
- 30. Defendant's infringement of Plaintiff's rights under the '854 Patent will continue to damage Plaintiff, causing irreparable harm to Plaintiff for which there is no adequate remedy at law, unless enjoined by this Court.

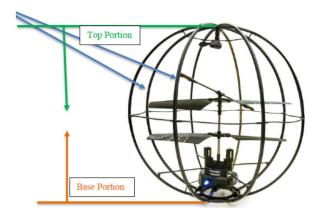
COUNT II

(INFRINGEMENT OF U.S. PATENT NO. 9,067,667)

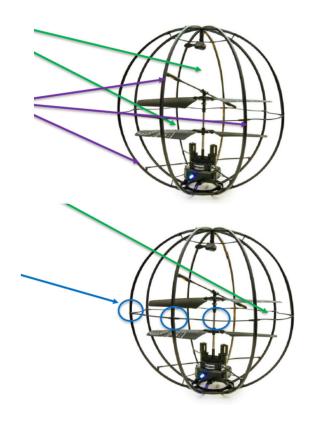
- 31. Plaintiff re-alleges and incorporates by reference each of Paragraphs above.
- 32. Plaintiff is informed and believes that Kyosho has infringed and continues to infringe the '667 Patent, either literally or under the doctrine of equivalents, through the manufacture and sale of infringing products under Kyosho's Space Ball brand, as incorporated into the Accused Products. Based upon public information, Kyosho has infringed and continues to infringe one or more claims of the '667 Patent, including Claim 1, because it ships distributes, makes, uses, imports, offers for sale, sells, and/or advertises devices that form a self-righting frame assembly for an aeronautical vehicle, said frame assembly (the "Space Ball" drone has a frame assembly for an aeronautical vehicle (flying machine, drone, etc.). The frame assemble causes the Space Ball drone to self-right when it falls to the ground at any position: either in any inverted state (other than right-side up). A pictorial example of the Accused Products is shown below:



The Accused Products have a frame structure with more than one vertically oriented frame member with an uninterrupted, continuous peripheral edge between the top portion and base portion

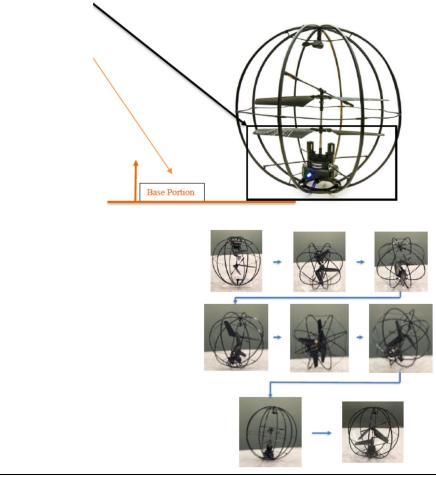


The Accused Products have at least one generally horizontal oriented frame coupled to the vertical oriented frame member



with the two frame members defining a central void and arranged in a fixed special relationship

and includes a weighted bass in the lower section of the frame assembly that positions the center of gravity near the bottom of the frame assembly and an apex providing an initial instability to start a self-righting process when placed in and off-kilter and inverted orientation.



C.D. CAL. CASE: ADVANCED AERODYNAMICS, LLC V. KYOSHO CORPORATION OF AMERICA

products and services, in a manner which infringes the '667 Patent.

Despite knowledge of the '667 Patent as early as the date of service of

Based upon public information, Kyosho has intentionally induced and

the Original Complaint in this action, based upon public information, Kyosho

continues to encourage, instruct, enable, and otherwise cause its customers to use its

continues to induce infringement of one or more claims of the '667 Patent in this

district and elsewhere in the United States, by its intentional acts which have

successfully, among other things, encouraged, instructed, enabled, and otherwise

caused Kyosho's customers to use the Accused Products and Services in an infringing

manner. To the extent that Kyosho is not the only direct infringer of the '667 Patent,

it instructs its customers on how to infringe the '667 Patent through its support and

Gyroscope/dp/B009NNM5DU/ref=sr 1 3?crid=39KOJIZ8CO08M&keywords=kyo

sho+helicopters&qid=1553687837&s=gateway&sprefix=kyosho+heli%2Ctoys-and-

Plaintiff as a result of Defendant's wrongful acts in an amount subject to proof at trial,

which, by law, cannot be less than a reasonable royalty, together with interest and

continue to damage Plaintiff, causing irreparable harm to Plaintiff for which there is

Defendant's aforesaid activities have been without authority and/or

Plaintiff is entitled to recover from Defendant the damages sustained by

Defendant's infringement of Plaintiff's rights under the '667 Patent will

sales to them, including their government and commercial clients.

https://www.amazon.com/Space-Ball-Infrared-Helicopter-

games%2C127&sr=8-3/ (last visited March 27, 2019).

costs as fixed by this Court under 35 U.S.C. § 284.

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license from Plaintiff.

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See

C.D. CAL. CASE: ADVANCED AERODYNAMICS, LLC v. KYOSHO CORPORATION OF AMERICA PLAINTIFF'S ORIGINAL COMPLAINT

no adequate remedy at law, unless enjoined by this Court.

<u>COUNT III</u>

(INFRINGEMENT OF U.S. PATENT NO. 9,216,808)

Plaintiff re-alleges and incorporates by reference each of Paragraphs above.

38. Plaintiff is informed and believes that Kyosho has infringed and continues to infringe the '808 Patent, either literally or under the doctrine of equivalents, through the manufacture and sale of infringing products under Kyosho's Space Ball brand, as incorporated into the products identified above. Based upon public information, Kyosho has infringed and continues to infringe one or more claims of the '808 Patent, including Claim 1, because it ships distributes, makes, uses, imports, offers for sale, sells, and/or advertises devices that form a self-righting aeronautical vehicle with a self-righting frame assembly, said frame assembly (the "Space Ball" drone has a frame assembly for an aeronautical vehicle (flying machine, drone, etc.). The frame assemble causes the Space Ball drone to self-right when it falls to the ground at any position: either in any inverted state (other than right-side up). A pictorial example of the Accused Products is shown below:



The Accused Products include a self-righting frame assembly with multiple frame members arranged in a fixed spatial relationship that provide a passageway for airflow to the interior void



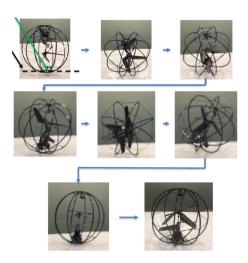
a portion of the frame members form a dome shaped section with an apex (and protrusion generally centered within the section



and a propulsion system within the interior void



where the apex and protrusion provide an initial instability to begin a self-righting process when the frame assembly is placed on a generally horizontal surface and in contact with the apex and protrusion.



39. Despite knowledge of the '808 Patent as early as the date of service of the Original Complaint in this action, based upon public information, Kyosho continues to encourage, instruct, enable, and otherwise cause its customers to use its products and services, in a manner which infringes the '808 Patent.

Based upon public information, Kyosho has intentionally induced and

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continues to induce infringement of one or more claims of the '808 Patent in this district and elsewhere in the United States, by its intentional acts which have successfully, among other things, encouraged, instructed, enabled, and otherwise caused Kyosho's customers to use the Accused Products and Services in an infringing manner. To the extent that Kyosho is not the only direct infringer of the '808 Patent,

it instructs its customers on how to infringe the '808 Patent through its support and

sales to them, including their government and commercial clients. See

Gyroscope/dp/B009NNM5DU/ref=sr 1 3?crid=39KOJIZ8CO08M&keywords=kyo

https://www.amazon.com/Space-Ball-Infrared-Helicopter-

- 41. Defendant's aforesaid activities have been without authority and/or license from Plaintiff.
- 42. Plaintiff is entitled to recover from Defendant the damages sustained by Plaintiff as a result of Defendant's wrongful acts in an amount subject to proof at trial, which, by law, cannot be less than a reasonable royalty, together with interest and costs as fixed by this Court under 35 U.S.C. § 284.
- 43. Defendant's infringement of Plaintiff's rights under the '808 Patent will continue to damage Plaintiff, causing irreparable harm to Plaintiff for which there is no adequate remedy at law, unless enjoined by this Court.

COUNT IV

(INFRINGEMENT OF U.S. PATENT NO. 9,434,462)

- 44. Plaintiff re-alleges and incorporates by reference each of Paragraphs above.
- 45. Plaintiff is informed and believes that Kyosho has infringed and continues to infringe the '462 Patent, either literally or under the doctrine of equivalents, through the manufacture and sale of infringing products under Kyosho's Space Ball brand, as incorporated into the Accused Products. Based upon public information, Kyosho has infringed and continues to infringe one or more claims of the '462 Patent, including Claim 1, because it ships distributes, makes, uses, imports, offers for sale, sells, and/or advertises devices that form a self-righting aeronautical vehicle (the "Space Ball" drone has a frame assembly for an aeronautical vehicle (flying machine, drone, etc.). The frame assemble causes the Space Ball drone to self-right when it falls to the ground at any position: either in any inverted state (other than right-side up). A pictorial example of the Accused Products is shown below:



The Accused Products has a self-righting substantially dome shaped vehicle body having an upper region comprising an upper airflow passageway at an upper region, a lower airflow passageway at a lower region, and the Accused Products further have and a convex exterior surface extending between the upper region and the lower region, the self-righting vehicle body defining an interior void, the upper airflow passageway and the lower airflow passageway enable airflow into and from the interior void of the self-righting aeronautical vehicle.

The Accused Products have at least one of an apex and a protrusion located generally centered within the upper region of the substantially dome shaped vehicle body.

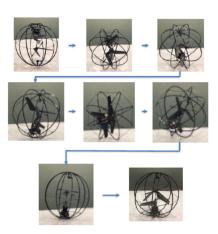


The Accused Products further has a propulsion system located within the interior void.



The at least one of the apex and the protrusion is adapted to provide an initial instability to begin a self-righting process when said frame assembly lands from a position in air onto a generally horizontal surface oriented having the at least one of the apex and the protrusion contacting the generally horizontal surface.





- 46. Despite knowledge of the '462 Patent as early as the date of service of the Original Complaint in this action, based upon public information, Kyosho continues to encourage, instruct, enable, and otherwise cause its customers to use its products and services, in a manner which infringes the '462 Patent.
- 47. Based upon public information, Kyosho has intentionally induced and continues to induce infringement of one or more claims of the '462 Patent in this district and elsewhere in the United States, by its intentional acts which have successfully, among other things, encouraged, instructed, enabled, and otherwise caused Kyosho's customers to use the Accused Products and Services in an infringing manner. To the extent that Kyosho is not the only direct infringer of the '462 Patent, it instructs its customers on how to infringe the '462 Patent through its support and sales to them, including their government and commercial clients. *See* https://www.amazon.com/Space-Ball-Infrared-Helicopter-

Gyroscope/dp/B009NNM5DU/ref=sr_1_3?crid=39KOJIZ8CO08M&keywords=kyosho+helicopters&qid=1553687837&s=gateway&sprefix=kyosho+heli%2Ctoys-and-games%2C127&sr=8-3/ (last visited March 27, 2019).

48. Defendant's aforesaid activities have been without authority and/or license from Plaintiff.

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