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IN THE UNITED STATES DISTRICT COURT

FOR THE CENTRAL DISTRICT OF CALIFORNIA

GOPRO, INC., a Delaware corporation, Plaintiff, v. ARASHI VISION INC., d/b/a INSTA360, a Chinese corporation, and ARASHI VISION (U.S.) LLC, d/b/a INSTA360, a Delaware limited liability company, Defendants.	CASE NO. 8:24-cv-00681 **COMPLAINT FOR PATENT INFRINGEMENT** **JURY TRIAL DEMANDED**

Plaintiff GoPro, Inc. ("GoPro" or "Plaintiff") asserts the following claims for patent infringement against Defendants Arashi Vision Inc., d/b/a Insta360, a Chinese corporation ("Insta360"), and Arashi Vision (U.S.) LLC, d/b/a Insta360, a Delaware entity ("Insta360-U.S.") (collectively, "Defendants"), and alleges as follows:

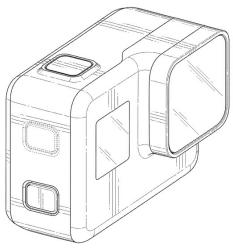
SUMMARY

1. GoPro, a California company, is a pioneer in developing cameras and digital imaging techniques. For over 20 years, GoPro has invested substantial time, effort, and money into researching and developing new and unique technology.

2. As a company built on innovation, GoPro has received numerous patents protecting its technological improvements. These patents claim novel techniques for capturing, editing, and processing images and videos, many of which have become foundational to the consumer experience.

3. Defendant Insta360, a Chinese manufacturer, is a relatively new entrant to the camera market. With its subsidiary, Insta360-US, Insta360 is now importing and selling competing cameras to the U.S. market that use and copy GoPro's most fundamental technological inventions.

4. Even more troubling, Insta360 has recently released a new line of cameras, dubbed the "Ace" and "Ace Pro." These new camera systems not only continue to infringe GoPro's technological inventions, but they now also blatantly appropriate GoPro's signature, ornamental design:

GoPro's D'435 Design	GoPro HERO5		Insta360 "Ace"	Insta360 "Ace Pro"
		→		

5. It has become clear that Insta360's increasingly brazen actions, both from a technological and now design standpoint, are calculated to profit at GoPro's expense and leverage GoPro's goodwill with consumers.

6. GoPro welcomes fair competition. Competition encourages innovation and fosters a vibrant market for consumers. Those principles, however, are not served by copyists who seek to profit off the hard work, investment, and innovation of others. GoPro should not be forced to compete against its own technology and designs, and therefore has no choice but to bring this action to stop Insta360's continuing and expanding infringement.

NATURE OF THE ACTION

7. This is a civil action for patent infringement under the patent laws of the United States, 35 U.S.C. § 1 *et seq.*

8. GoPro is the owner of all right, title, and interest in United States Patent Nos. 10,015,413 (the "'413 Patent"); 10,529,052 (the "'052 Patent"); 10,574,894 (the "'894 Patent"); 10,958,840 (the "'840 Patent"); and 11,336,832 (the "'832 Patent); and United States Design Patent No. D789,435 (the "D'435 Patent) (together, the "GoPro Patents" or the "Patents-in-Suit").

9. GoPro is the legal owner by assignment of the Patents-in-Suit, which were duly and legally issued by the United States Patent and Trademark Office ("USPTO").

10. Defendants have knowingly infringed and continue to infringe one or more claims of GoPro's Patents. Defendants have also induced and contributed to direct infringement of the utility patents by others, including their customers, and continue to do so.

11. Defendants infringe at least by making, using, importing, selling, and/or offering for sale the Insta360 "One X," "One R," "One R 1-inch," "One X2," "One RS," "One RS 1-inch 360," "One X3," "Go 3," "Ace," and "Ace Pro" camera systems ("Accused Camera Systems"), as well as the Insta360 mobile applications for iOS and

Android, and the Insta360 Studio desktop editing software for Windows and Mac OS ("Accused Editing Applications") (together, "Accused Systems").

12. Defendants' infringement is widespread, throughout the United States, the State of California, and this District. GoPro seeks injunctive relief and monetary damages.

THE PARTIES

13. Plaintiff GoPro is a Delaware corporation with its principal place of business at 3025 Clearview Way, San Mateo, California 94402. GoPro is the owner of the Patents-in-Suit.

14. On information and belief, Defendant Insta360 is a Chinese corporation with a principal place of business located at 12F, Building T2, Hengyu Qianhai Financial Center, Nanshan District, Shenzhen, P.R. China. On information and belief, Insta360 imports and/or markets, offers, distributes, sells, and/or offers for sale the Accused Systems throughout the United States, the State of California, and this District.

15. On information and belief, and according to filings with the California Secretary of State, Defendant Insta360-U.S. is a Delaware limited liability company and wholly owned subsidiary of Insta360 with a principal place of business located at 2323 Main St., Unit 16, Irvine, CA 92614. On information and belief, Insta360-U.S. imports and/or markets, offers, distributes, sells, and/or offers for sale the Accused Systems throughout the United States, the State of California, and this District.

16. Upon information and belief and as further explained below, Defendants have been and are acting in concert, and are otherwise liable jointly and severally for transactions or occurrences related to the importing, making, using, selling, offering for sale or otherwise distributing the Accused Systems in the United States.

17. This action involves questions of law and fact that are common to all Defendants.

JURISDICTION AND VENUE

18. This is a civil action for patent infringement arising under the patent laws of the United States, 35 U.S.C. § 1 *et seq*.

19. This Court has subject matter jurisdiction over the matters asserted herein under 28 U.S.C. §§ 1331 and 1338(a) and 35 U.S.C. §§ 271 *et seq*.

A. Personal Jurisdiction Over Insta360

20. This Court has personal jurisdiction over Insta360 because, on information and belief, Insta360 imports infringing products into the United States and the State of California, does continuous and systematic business in the State of California, provides infringing products to the residents of the State of California that Insta360 knew would be used within the State and California, and solicits business from the residents of the State of California.

21. For example, on information and belief, Insta360 conducts business through the offices of its U.S. subsidiary,[1] Insta360-U.S., which has its principal place of business at 2323 Main St., Unit 16, Irvine, CA 92614. Through Insta360-U.S. and working in concert with Insta360-U.S., Insta360 employs engineers, office managers, marketing teams, and/or other personnel, including personnel at Insta360-U.S. facilities in this District.[2]

22. On further information and belief, Insta360 not only "owns," but also "operates" Insta360-U.S., as one of Insta360-U.S.'s two members is Jingkang Liu, a founder and Vice President of Insta360.[3]

23. Insta360 also directly and through agents regularly does, solicits, and

[1] For example, Insta360's website directs those seeking to contact it to the address and phone number of Insta360-U.S. *See* https://www.insta360.com/contact.

[2] www.LinkedIn.com identifies at least 15 people in this District that are employed by Insta360 and/or Insta360-U.S.

[3] *See* Statement of Information – Limited Liability Company, Arashi Vision (U.S.) LLC, March 10, 2023.

transacts business in this District and elsewhere in the State of California.

24. In particular, Insta360 maintains a website advertising and promoting its products, including the Accused Systems, which is directed to customers in this District, the State of California, and throughout the United States.[4]

25. Insta360 distributes its products, including the Accused Systems, for sale in retail stores such as BestBuy, located throughout this District, the State of California, and throughout the United States.[5]

26. Insta360, on information and belief, also markets, offers, and distributes its Accused Editing Applications to users of computing and mobile devices in this District and throughout the State of California through its website, at https://www.insta360.com/download.

27. Insta360 has committed and continues to commit acts of infringement in violation of 35 U.S.C. § 271, and has made, used, marketed, distributed, offered for sale, sold, and/or imported infringing products in the State of California, including in this District, and engaged in infringing conduct within and directed at or from this District.[6]

28. Insta360 has purposefully and voluntarily placed the Accused Systems into the stream of commerce with the expectation that its infringing product will be used in the State of California and this District. The Accused Systems have been and continue to be distributed to and used in the State of California and this District.

29. Insta360's acts cause injury to GoPro, including within this District, including by diverting sales from GoPro.

[4] https://www.insta360.com/

[5] *See* https://www.insta360.com/support/buy-map.

[6] For example, Insta360 products are available at numerous retail stores, such as BestBuy, throughout this District. *See* https://www.insta360.com/support/buy-map.

B. Personal Jurisdiction Over Insta360-U.S.

30. This Court also has personal jurisdiction over Defendant Insta360-U.S. because Insta360-U.S. does continuous and systematic business in the State of California, including this District, by maintaining its principal place of business in this District, providing infringing products and services to the residents of the State of California and this District that Insta360-U.S., and by soliciting business from the residents of the State of California and this District.

31. Insta360-U.S.'s principal place of business is located in this District at 2323 Main St., Unit 16, Irvine, CA 92614. On information and belief, Insta360-U.S. employs individuals within this District, and directly and through agents regularly does, solicits and transacts business in the District and elsewhere in the State of California.

32. Insta360-U.S. distributes its products, including the Accused Systems, for sale in retail stores such as BestBuy, located throughout this District, the State of California, and throughout the United States.[7]

33. Insta360-U.S. also markets, offers, and distributes its Accused Editing Applications to users of computing and mobile devices in this District and throughout the State of California through its website, at https://www.insta360.com/download.

34. Insta360-U.S. has committed and continues to commit acts of infringement in violation of 35 U.S.C. § 271, and has made, used, marketed, distributed, offered for sale, sold, and/or imported infringing products in the State of California, including in this District, and engaged in infringing conduct within and directed at or from this District.

35. Insta360-U.S. has purposefully and voluntarily placed the Accused Systems into the stream of commerce with the expectation that its infringing product will be used in the State of California and this District. The Accused Systems have

[7] *See* https://www.insta360.com/support/buy-map.

been and continue to be distributed to and used in the State of California and this District.

36. Insta360-U.S.'s acts cause injury to GoPro, including within this District, including by diverting sales from GoPro.

C. Venue

37. Venue is proper in this District under the provisions of 28 U.S.C. §§ 1391 and 1400(b) at least because Defendants have committed acts of infringement in this District and have a regular and established place of business in this District.

38. On information and belief, venue is also proper in this District against Insta360 under the provisions of 28 U.S.C. § 1391(c)(3).

FACTS COMMON TO ALL CLAIMS

GoPro's Innovation, Patented Technologies, and Industry Recognition

39. GoPro helps the world capture and share itself in immersive and exciting ways. The California company was founded in 2002 by Nick Woodman, an entrepreneur in search of a better way to film himself and his friends surfing. The company quickly expanded into creating solutions for other activity and capture segments including motorsports, snow sports, water sports, airborne sports, cycling, vlogging, travel, and more.

40. Over the years, GoPro has grown into a world-renowned brand praised for its versatile and empowering products. Owing to its significant investment in developing and perfecting cutting-edge image capture and processing technology, GoPro has commercialized an entire line of cameras that have fundamentally transformed the way people capture, manage, share, and enjoy meaningful life experiences.

41. What began as an idea to help athletes capture themselves engaging in their sport has become a widely adopted solution for consumers to document and share compelling, immersive photo and video of themselves participating in their favorite activities. From extreme to mainstream, professional to consumer, GoPro's

patented technology has given the world the ability to capture and share its passions in immersive and exciting ways.

42. Today, GoPro sells its cameras and related accessories in over 80 countries and continues to advance camera technology, such as by enhancing picture and video quality and user experience.

43. The Patents-in-Suit protect GoPro's novel technology, which took an immense amount of time and hundreds of millions of dollars to develop. In particular, the Patents-in-Suit protect GoPro's renowned SuperView, virtual lens, HyperSmooth, and Horizon Leveling technology used in its HERO and MAX line of products. One of the Patents-in-Suit also protects GoPro's signature, ornamental camera design.

44. As discussed more fully below, GoPro's protected technology gives anyone the ability to capture high-quality, professional-grade photo and video while performing virtually any activity, something that cannot be done with a traditional camera.

45. Indeed, GoPro has earned two Emmy® Awards for innovations in design and technology that have had a material impact on the television industry. In relation to its HyperSmooth technology, GoPro was recognized in 2022 for innovation in the category of "In-Camera Sensor and Software Stabilization," recognizing the technologies powering HyperSmooth. In 2013, GoPro was recognized with its first Emmy® for being the pioneer in "Inexpensive Small Rugged HD Camcorders."

46. Rather than spend the time and money to develop their own technology, the Defendants chose instead to copy GoPro's.

47. The Accused Systems imported, marketed, sold, and offered for sale by the Defendants infringe the claimed inventions covered by one or more claims of each of the Patents-in-Suit. Moreover, Defendants' recently released "Ace" and "Ace Pro" products that infringe GoPro's patented, ornamental design.

GoPro's Patents

A. The '413 Patent

48. U.S. Patent No. 10,015,413 ("'413 Patent") is entitled "Conversion Between Aspect ratios in Camera," and was issued on July 3, 2018. A true and correct copy of the '413 Patent is attached as Exhibit **A**.

49. The '413 Patent was filed on April 20, 2017 as U.S. Patent Application No. 15/492,738 and is a continuation of U.S. Patent Application No. 15/044,253, issued as U.S. Patent No. 9,674,429, which is a continuation of U.S. Patent Application No. 14/536,315, issued as U.S. Patent No. 9,294,671, which is a continuation of U.S. Patent Application No. 14/180,887, issued as U.S. Patent No. 8,917,329, which claims the benefit of U.S. Provisional Patent Appl. No. 61/869,029, filed August 22, 2013.

50. The '413 Patent is directed to GoPro's "SuperView" technology. Using GoPro's SuperView technology, users are able to capture an immersive, wide-angle perspective through dynamic and non-uniform stretching of the video frame aspect ratio (*i.e.*, the proportional relationship between the width and height of a video frame).

51. Prior to the '413 Patent, "[c]onverting between aspect ratios [was] a common problem in the field of image and video processing." '413 Patent at 1:6-7. "Conventional conversion techniques such as cropping, linearly scaling, and padding each result[ed] in a perceivable reduction in the quality of an image or video." *Id.* at 1:11-13. For example, cropping would "remove[] content from the image and reduce[] the field of view of the image." *Id.* at 1:14-15. "Linear scaling," on the other hand could "maintain[] the full field of view" but would "introduce[] perceivable distortion into the image." *Id.* at 1:16-18.

52. Given these challenges with aspect ratio conversion, a user of a camera was generally limited to capturing images with an output field of view having the same aspect ratio of the intended display. This constraint resulted in an undesirable

reduction in the field of view, particularly when a user would seek to shoot images and videos from certain perspectives.

53. The '413 Patent addresses this issue by providing novel image processing techniques allowing a device to capture images in one aspect ratio and then non-uniformly stretch and/or compress those images into a second aspect ratio, resulting in a more immersive shot containing more content in the output aspect ratio than could have been captured directly. Moreover, the invention accomplishes this goal while minimizing perceptible distortion effects.

54. As the '413 Patent describes, it is desirable for an image capture device to "make[] full use of the available field of view of the image sensor 104 . . . ." '413 Patent at 3:32-35. Thus, per the invention, when the image sensor captures a field of view with an aspect ratio different from the display aspect ratio, the image capture device "uses resolution compression and/or stretching in the appropriate axes to convert the captured image in the source aspect ratio to the target aspect ratio." *Id.* at 3:39-42.

55. Using a "non-linear function across the image," the invention is capable of "minimizing or reduc[ing] undesirable key feature aspect ratio distortions." *Id.* at 3:43-45. Preferably, the non-linear function minimizes these undesirable aspect ratio distortions without "any loss of field of view." *Id.* at 3:46.

56. For example, Figure 4 illustrates an embodiment of the invention. As the Patent explains, an original image of a checkerboard pattern may be captured using a 4:3 aspect ratio, as shown in image 402. '413 Patent at 5:20-25. If the original 4:3 image is cropped into a 16:9 aspect ratio according to prior art techniques, as shown in image 404, vertical content is lost, which is undesirable. The '413 Patent, by contrast, teaches how the entire vertical content of the original image can be fit into the output 16:9 format, as shown in image 406, all while minimizing distortion near the center of the image. *Id.* at 5:25-27.

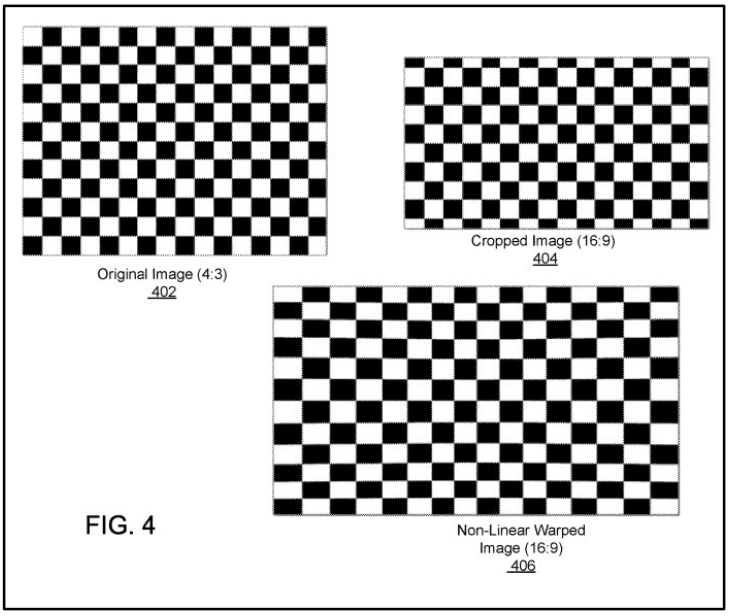


FIG. 4

57. When applied in the camera setting, the invention of the '413 Patent provides a unique and immersive perspective, yielding more content within the output frame than the camera could have captured directly with the desired aspect ratio. GoPro advertises this as its "SuperView" feature, which has been widely lauded in the industry for over a decade.

58. While there are countless scenarios where SuperView mode provides excellent results, it is particularly useful for activities where the camera is facing towards or away from the user and mounted on the user's head, chest, or bike, such as in the cases of skiing, biking, motocross, or other active use cases.

59. To summarize, the invention of the '413 Patent is directed to a specific, technical problem that arises when capturing and displaying images and videos. Specifically, given the known challenges in converting between aspect ratios, a camera was generally limited to capturing content within the field of view of the desired output aspect ratio, which could limit the camera from making full use of the image sensor. The '413 Patent addresses this technical shortcoming of existing cameras by providing a technique for non-uniformly stretching and/or compressing an image along the vertical and horizontal axes to maximize the field of view without introducing perceptible distortion effects.

60. The invention of the '413 Patent is a specific, technical solution rooted within the domain of digital image capture devices, and improves the technical functioning of such devices by allowing them to maximize the image capturing capability of their image sensors, notwithstanding the need to output the image in a different aspect ratio.

61. The key inventive concepts of the '413 Patent are captured in the limitations of the independent claims. These limitations are not routine, conventional, or well-known. Claim 1, for example, is directed to an "image capture system" that captures input images in a "source aspect ratio," and applies a transformation to "non-uniformly shift[] the pixels from the input positions to [] output positions based on (1) the input positions along the first axis, and (2) the input positions along the second axis." '413 Patent, Claim 1. Additionally, the non-uniform shifting is accomplished in a manner "such that differences between the input positions and the output positions of [a] subset of the pixels [] are less than differences between the input positions and the output positions of others of the pixels." *Id.* These claim limitations, in isolation and as an ordered combination within the claim, provide a novel solution to the technical problem described by the '413 Patent.

B. The '052 Patent

62. U.S. Patent No. 10,529,052 ("'052 Patent") is entitled "Virtual Lens Simulation for Video and Photo Cropping," and was issued on January 7, 2020. A true and correct copy of the '052 Patent is attached as Exhibit **B**.

63. The '052 Patent was filed on August 8, 2019 as U.S. Patent Application No. 16/535,940 and is a continuation of U.S. Patent Application No. 16/229,512, issued as U.S. Patent No. 10,395,338, which is a continuation of U.S. Patent Application No. 15/157,207, issued as U.S. Patent No. 10,186,012, which claims the benefit of U.S. Provisional Patent Application No. 62/164,409, filed May 20, 2015.

64. The '052 Patent is directed to GoPro's "virtual lens" technology. As the Patent states, the invention is directed to a system for simulating "a virtual lens …

when applying a crop or zoom effect to an input video." '052 Patent, Abstract. This technology may be implemented, for example, in post-production editing applications. This technology may also be implemented as one part of an overall method for "in camera" image processing and stabilization.

65. GoPro's virtual lens technology allows for edited, cropped, zoomed-in, and panned images and video to be properly recentered to maximize their quality and viewing experience. As the '052 Patent explains, "[i]t is often desirable to perform crop or zoom operations on high resolution images or video frames to extract a reduced field of view sub-frame," particularly for "wide angle or spherical images or video," because much of the field of view captured "may be of little interest to a given viewer" or contain subjects that "appear very small." '052 Patent at 1:14-20. Editing operations such as cropping and zooming thus allow an editor to create "an image or video with the subject more suitably framed." *Id.* at 1:20-22.

66. However, the '052 Patent also explains that reframing through such operations is greatly dependent on the lens characteristics of the camera that captured the images or video, because "different lens[es] may produce different lens distortion effects in different portions of the image or video frame due to different lens characteristics." '052 Patent at 7:26-29. Wide angle lenses, in particular, "may introduce the perception of distortion" into captured images and video "due to the fact that the cameras are projecting content from a spherical world onto a rectangular display." *Id.* at 1:22-27.

67. Also, because distortion "tends to increase near the edges and corners of the captured frames," "a sub-frame near an edge or a corner of a wide angle image capture" may "hav[e] significantly different distortion than a sub-frame extracted from the center of the image." '052 Patent at 1:24-30; 2:61-3:8. This effect is particularly undesirable for videos, where editing may involve "combining cropped sub-frames corresponding to different regions of a video (e.g., to track movement of a subject of interest), or combining cropped sub-frames with uncropped frames (e.g.,

to produce zoom in effect)." *Id.* at 1:32-37.

68. The '052 Patent provides a technical solution to these challenges, allowing users to efficiently obtain edited video or images that simulate the same effect that would have been achieved if the user had physically re-oriented the camera to produce the panning, re-pointing, cropping, or zooming effects, without a perceivable loss in image fidelity.

69. Specifically, the '052 Patent is directed to a novel "virtual lens model" that, when applied to repointed, cropped, or zoomed in portions of input images or video, "produce[s] consistent lens characteristics across each output image." '052 Patent at 3:22-24.

70. To achieve this result, the '052 Patent discloses a method of processing a selected sub-frame "to remap the input lens distortion centered on the first field of view of the original input image or video frame to a desired lens distortion effect centered on a second field of view of the sub-frame," with the desired lens distortion exhibiting the same lens characteristics exhibited by the input lens distortion in the original images. '052 Patent at 11:51-55.

71. Importantly, during this remapping, the '052 Patent teaches a technique for transforming the input lens distortion present in selected sub-frames to the desired lens distortion based on a function of the original input lens distortion in the input images or video, the location of the sub-frame within the input images or video, and the size of the sub-frame. '052 Patent at 5:52-61; 11:1-10; 12:25-30; Claims 1, 11. The '052 Patent explains that this method can be utilized with either sub-frames "selected manually by a video editor in post-processing[] or … automatically … based on various metadata" or other inputs. *Id.* at 2:52-56; 5:26-6:3.

72. The '052 Patent technique also produces consistent lens characteristics across each edited image or video in an efficient manner that minimizes losses. For example, "the remapping [may] be achieved by applying a direct transformation function that describes a relationship between the input lens distortion of the input

sub-frame (which may be centered on the original input image or video frame) and the desired lens distortion of the output sub-frame (which may be centered on the sub-frame)." '052 Patent at 60:65. As a result of this direct mapping, the invention of the '052 Patent "may enable the transformation to be achieved with higher quality and less loss than a comparable two-step process of separately removing the input distortion and then introducing the desired lens distortion." *Id.* at 12:6-10.

73. Accordingly, the invention of the '052 Patent is directed to a specific, technical problem that arises when using digital technology to select sub-frames within a captured image or video. The patent teaches a pixel remapping and direct transformation technique that provides consistent lens characteristics across frames, even when cropped. This is a specific solution to dealing with the technical challenge of distortion that is introduced through conventional crop, recenter, and zoom operations.

74. The technical solution afforded by the '052 Patent is rooted in the technical challenge of digital image capture devices and editing systems. The invention improves the functionality of these digital image processing systems by enabling crop, recenter, and zoom operations while maintaining consistent lens characteristics and without resulting in a loss of image resolution or quality.

75. The independent claims of the '052 Patent capture the key inventive concepts of the invention, and they are not routine, convention, or well-known. Claim 1, for example, is directed to a system for "generating output images based on a desired lens distortion, and the different lens distortion effects in the sub-frames, the desired lens distortion and the input lens distortion exhibiting consistent lens characteristics . . . ." This limitation, both itself and within the claim as an ordered combination, captures the inventive concept of providing consistent lens characteristics across a series of edited images through the use of direct transformations in order to reduce losses and increase fidelity of the final output images.

C. The '894 and '840 Patents

76. U.S. Patent No. 10,574,894 ("'894 Patent") is entitled "Systems and Methods for Stabilizing Videos," and was issued on February 25, 2020. A true and correct copy of the '894 Patent is attached as Exhibit **C**.

77. The '894 Patent was filed on August 22, 2019 as U.S. Patent Application No. 16/548,453 and is a continuation of U.S. Patent Application No. 16/418,203, issued as U.S. Patent No. 10,587,808, which is a continuation of U.S. Patent Application No. 16/150,066, issued as U.S. Patent No. 10,341,564, which is a continuation of U.S. Patent Application No. 15/987,786, issued as U.S. Patent No. 10,587,807, which claims the benefit of U.S. Provisional Patent Application No. 62/673,388, filed May 18, 2018.

78. U.S. Patent No. 10,958,840 ("'840 Patent") is entitled "Systems and Methods for Stabilizing Videos," and was issued on March 23, 2021. A true and correct copy of the '840 Patent is attached as Exhibit **D**.

79. The '840 Patent was filed on December 13, 2019 as U.S. Patent Application No. 16/713,798 and is a continuation of U.S. Patent Application No. 16/587,811 filed September 30, 2019, issued as U.S. Patent No. 11,172,130, which is a continuation of U.S. Patent Application No. 16/548,549 filed August 22, 2019, issued as U.S. Patent No. 10,536,643, which is a continuation of U.S. Patent Application No. 16/392,501 filed April 23, 2019, issued as U.S. Patent No. 10,432,864, which claims the benefit of U.S. Provisional Patent Application No. 62/733,237, filed September 19, 2018.

80. GoPro owns by assignment all rights, title, and interest in and to the '840 Patent, with the full and exclusive right to bring suit to enforce the '840 Patent, including the right to recover for past infringement.

81. The '840 Patent is valid and enforceable under United States Patent Laws.

82. The '894 and '840 Patents are directed to separate aspects of GoPro's

award-winning "HyperSmooth" video stabilization technology. GoPro's HyperSmooth technology provides advanced electronic image stabilization to capture smooth and stable video footage even in challenging and shaky conditions.

83. Camera users often seek to capture themselves performing activities such as surfing, mountain biking, or hiking over uneven terrain. These activities (and others) inevitably result in shaky or unstable images or video, as users cannot perfectly hold the camera steady throughout the duration of a capture event. As explained by both patents, "[t]he motion of the image capture device during the capture of the video may cause the video to appear jerky/shaky." '894 Patent at 1:11-14; '840 Patent at 1:11-14.

84. Prior art systems for stabilizing images and videos, such as mechanical gimbals and stabilizers, introduced additional components, increased complexity, and generally were not effective in stabilizing videos over the range of activities experienced by camera users.

85. GoPro's HyperSmooth technology addresses this problem by using internal circuitry to identify and track the motion of the camera, and then applying novel technology and image processing techniques to digitally compensate for this camera movement.

86. For example, the patents describe the use of an integral "position sensor" that is used to determine an "observed trajectory" ('894 Patent) or simply a "trajectory" ('840 Patent) of the image capture device during the capture duration. '894 Patent at 3:49-54; '840 Patent at 4:61-66. As the patents recognize, simply generating a video based on images captured along the observed trajectory is undesirable because it may result in "footage that is shaky and/or that appears to include unintended camera motion." *E.g.*, '894 Patent at 7:56-60. Thus, the patents instead teach generating a stabilized trajectory (*i.e.*, the "capture" or "smoothed" trajectory) of the video based on "punch-out" views (*i.e.*, smaller visual content portions) of each successive image. '894 Patent at 8:2-6; '840 Patent 8:56-60.

87. The HyperSmooth patents further teach a unique combination of techniques to result in stabilized videos. For example, the patents describe a "look ahead" technique, whereby the stabilized trajectory, at any given moment in time, is determined based at least in part upon the observed trajectory of the image capture device (as determined by the position sensor) at some *subsequent* point of time in the capture duration. '894 Patent at 9:37-52; '840 Patent at 8:41-55. This use of a "look-ahead" allows the system to better "preserve[] a user's intended motion for the image capture device." '894 Patent at 9:52-56.

88. The HyperSmooth patents further teach the specific criteria that may be used by the system in order to generate appropriate punch-outs and generate the stabilized videos. For example, the '894 Patent teaches an approach "based on minimization of a rotational velocity of the image capture device/housing [] and a rotational acceleration of the image capture device/housing [] while respecting a set of constraints." '894 Patent at 10:61-66.

89. The '840 Patent likewise teaches a number of parameters, '840 Patent at 21:17-25, including a "weight-balance parameter," *id.* at 21:26-58, a "low-light high-pass parameter," *id.* at 21:59-22:21, and a "stickiness parameter," *id.* at 22:22-41. Further, the '840 Patent teaches the use of a configurable "temporal horizon" to balance the tradeoff between enabling the system to better "identify intentional motion" and avoiding "longer delays" in calculating the stabilized trajectory. *Id.* at 9:17-28.

90. The technical solution claimed by the '894 and '840 Patents provides a smooth, easy-to-watch video, even in situations where the footage would have been unusable in previous cameras. GoPro's HyperSmooth inventions are particularly useful in situations where the camera is subject to vibrations, bumps, or rapid movements, such as during action sports or other adventurous activities.

91. The inventions disclosed and claimed in both the '894 Patent and the '840 Patent are directed to concrete, technical solutions to help address the problem

of shaky or unstable video that often arises with image capture devices. The inventions are directed to a set of specific technical solutions, including the use of a "punch-out" to generate a stabilized trajectory, the use of a "look-ahead" to determine an appropriate punch-out at any given moment in time, and a set of well-specified criteria and parameters for determining an appropriate stabilized trajectory over the course of a capture duration. These solutions are specific to the domain of image capture devices, and they improve the functioning of the image capture device itself by yielding smoother, more stabilized videos even in shaky conditions.

92. The solutions provided by the HyperSmooth patents are reflected in specific limitations of the independent claims of the '894 Patent ("generate the video content based on a punch-out of visual content," "determine a capture trajectory of the housing based on a look ahead of the observed trajectory," "wherein the capture trajectory is determined to include a path that minimizes a combination of rotational velocity and rotational acceleration of the housing"), as well as specific limitations of the independent claims of the '840 Patent ("the stabilized visual content including the punchout of the one or more extents of the visual content within the viewing window," "determine a smoothed trajectory of the housing based on a look-ahead of the trajectory," use of "one or more of a weight-balance parameter, a low-light high-pass parameter, and/or a stickiness parameter," "wherein the determination of the smoothed trajectory includes use of a temporal horizon of motion experienced by the image capture device"). These limitations are not routine, conventional, or well-known, either in isolation or existing within an ordered combination of the claims. These limitations focus the claims on the specific, inventive aspects of the HyperSmooth technology.

D. The '832 Patent

93. U.S. Patent No. 11,336,832 ("'832 Patent") is entitled "Systems and Methods for Horizon Leveling Videos" and was issued on May 17, 2020. A true and correct copy of the '832 Patent is attached as Exhibit **E**.

94. The ’832 Patent was filed on August 28, 2020 as U.S. Patent Application No. 17/006,536, which claims the benefit of U.S. Provisional Patent Application No. 62/894,649, filed August 30, 2019.

95. The ’832 Patent is directed to GoPro’s “Horizon Leveling” technology. GoPro’s Horizon Leveling technology provides a technique to capture a smooth, horizon-leveled video regardless of whether users are sideways, flipping through the air, or chasing after a target.

96. As described in the previous section, users of conventional cameras faced the problem of shaky and/or unstable video, especially when shooting during action sports. In addressing this issue, GoPro recognized that certain unintended rotational motions were particularly problematic because they provided the appearance of an off-axis horizon. Specifically, as the ’832 Patent states, “[t]he motion of the image capture device during the capture of the video may cause the video to depict a tilted view of a scene.” ’832 Patent at 1:12:14.

97. GoPro’s Horizon Leveling technology is addressed to this problem, providing a novel and targeted technique for leveling user videos only on the horizontal axis (i.e., orthogonal to the gravity vector), meaning that the image horizon remains level while any movement from panning up or down still remains visible in the shots.

98. For example, the ’832 Patent teaches that when an image capture device is rotated to the right with respect to the ground, upright objects within the scene are depicted as being tilted to the left (as shown in item 514 below). *See* ’832 Patent at 10:1-4.

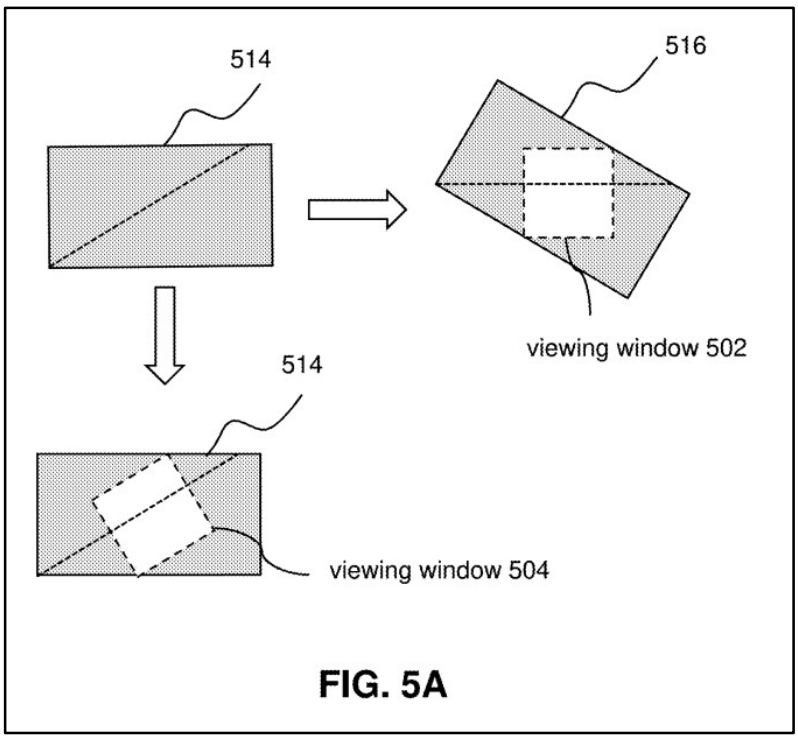


FIG. 5A

99. In order to detect this tilt, the patent teaches the use of a "position sensor" within the image capture device to determine the "rotational positions of the image capture device as the function of progress through the capture duration . . . ." *See id.* at 10:54-61. Readings from the position sensor are used to estimate "the offset of the visual content from the horizon due to rotation of the image capture device." *Id.* at 10:58-62.

100. Based on the readings from the position sensor, the patent teaches that the "visual content of the image 514 may be rotated to the right" by an amount necessary to compensate for the tilt and "generate a leveled image 516." *Id.* at 10:14-15. Then, "[a] viewing window 502 may be positioned in an upright manner within the visual content of the leveled image 516 to provide an upright punchout (leveled view) of the scene." *Id.* at 10:19-21. The punchout results in a horizon-leveled depiction of the scene.

101. The patent includes a number of further inventive concepts as well. For example, the patent teaches that how "[t]he size of the viewing window (punchout) may be determined (e.g., dynamically changed) based on the rotational positions of

the image capture device." '832 Patent at 10:52-54. Additionally, the patent teaches implementations that may involve the application of distortion to otherwise non-distorted visual content in order to "reduce[] the impact of an off-axis horizon depicted within the visual content . . . ." *Id.* at 22:33-48. Finally, the patent also teaches the use of a viewing window with a "one-by-one aspect" ratio which can reduce the impact of an off-axis horizon, *id.* at 23:6-8, and also "enable horizon leveling when the image capture device is rotated by 90 degrees without adversely impacting the overall image composition," *id.* at 23:29-32.

102. GoPro's Horizon Leveling technology works in tandem with GoPro's HyperSmooth technology, described above, to provide a further degree of image stabilization, particularly where the camera is subject to bumps and rapid movements, such as during action sports and adventurous activities.

103. GoPro's Horizon Leveling technology can also provide a unique and improved first-person perspective of movement through a scene relative to the leveled horizon, for example when a user performs a 360-degree rotation in an aircraft or on a roller coaster.

104. The invention of the '832 Patent is directed to a specific, technical problem that arises when using a physical camera to capture scenes in shaky or unstable environments. Specifically, the invention is directed to a technique to using position sensors within the camera to detect camera rotations and then compensate for such rotations by generating a "punch-out" of the capture visual content that results in a horizon leveled image. The invention is directed to a tangible and concrete improvement to the camera itself, and addresses a technological problem rooted in the domain of cameras and digital imaging technology.

105. Additionally, the claims of the '832 Patent capture the key concepts of the invention, demonstrating that such concepts are inventive. Claim 1, for example, recites "obtain[ing] video information," "obtain[ing] rotational position information for the video," "determining a viewing window for the visual content as a function of

progress through the progress length based on the rotational positions," and "generat[ing] the horizon-leveled content . . . including a punchout of the extents of the visual content defined by the viewing window." This ordered combination of limitations provides a specific set of requirements for achieving the desired results of the claimed invention that are not routine, conventional, or well-known.

106. Dependent claim 2 of the '832 Patent recites a further inventive concept, wherein the "viewing window" has a one-by-one aspect ratio which, as discussed above, reduces the impact of an off-axis horizon while also enabling the invention to work as intended when the image capture device is rotated to an angel up to 90 degrees. This use of a one-by-one aspect ratio for the viewing window of the claimed invention is not routine, conventional, or well-known.

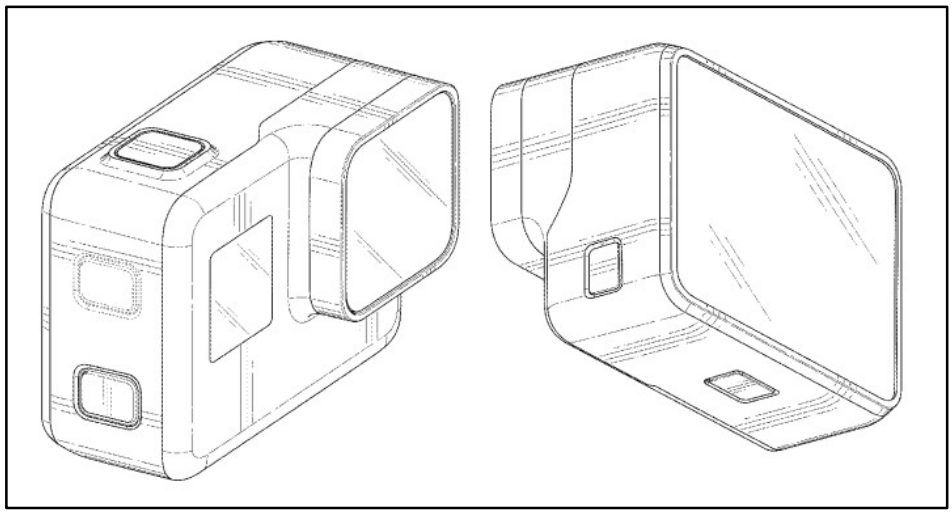
107. Finally, dependent claim 3 of the '832 recites "wherein the visual content includes a distortion such that a straight line within a scene depicted within the visual content appears as a curved line, the distortion of the visual content reducing impact of an off-axis horizon depicted within the horizon-leveled visual content." This intentional introduction of distortion in order to reduce the impact of an off-axis horizon, within the context of the invention as a whole, is also not routine, conventional, or well-known. If anything, intentional introduction of distortion for this purpose is counter-intuitive, reflecting the novel aspects of the claimed invention.

E. The D'435 Patent

108. U.S. Patent No. D789,435 ("D'435 Patent") is entitled "Camera" and was issued on June 13, 2017. A true and correct copy of the D'435 Patent is attached as Exhibit **F**.

109. The D'435 Patent was filed on October 26, 2016 as U.S. Patent Application No. 29/582,287, which is a continuation of U.S. Patent Application No. 29/554,818 filed February 16, 2016, issued as U.S. Patent No. D773,546, which is a continuation of U.S. Patent Application No. 29/545,934 filed November 17, 2015, issued as U.S. Patent No. D769,346.

110. For years, the iconic design covered by D'435 has become synonymous in the eye of consumers with GoPro's brand and its unique line of cameras.



Defendants' Use of GoPro's Patented Technologies and Design

111. Seizing on the success of GoPro's inventions, Defendants have been producing and selling Accused Camera Systems and Accused Editing Applications that unlawfully utilize GoPro's patented technologies since at least 2018. The Accused Camera Systems include at least, the Insta360 "One X," "One R," "One R 1-inch," "One X2," "One RS," "One RS 1-inch 360," "One X3," "Go 3," "Ace," and "Ace Pro."

112. On information and belief, Defendants released the Accused Camera Systems on the following dates:

Insta360 Camera System	Approximate Release Date
One X	October 2018
One R	January 2020
One R 1-Inch	January 2020
One X2	October 2020
One RS	March 2022
One RS 1-Inch 360 Edition	June 2022

One X3	September 2022
Go 3	June 2023
Ace	November 2023
Ace Pro	November 2023

113. On information and belief, Insta360 releases new updates for the firmware of its Accused Camera Systems. As these software updates are released, infringing features are implemented into previously released Accused Camera Systems.

114. For example, on information and belief, on or about November 22, 2021, Defendants released their "Quick FlowState" feature "with greatly improved stabilization straight out of the camera."[8] The Quick FlowState, or FlowState 2.0 feature was made available to previously released Accused Camera Systems, resulting in those previously released Accused Camera Systems infringing the '894 Patent and the '840 Patents at least by the date of that new software release.

115. Similarly, on information and belief, in 2021 Defendants released their "horizon lock" feature and made this feature available to previously released Accused Camera Systems, resulting in those previously released Accused Camera Systems infringing the '832 Patent at least by the date of that new software release.[9]

116. On information and belief, Defendants have offered the Accused Editing Applications since 2019. Again, Defendants update their Accused Editing Applications over time, adding features that infringe the Patents-in-Suit as of the date of their release.

[8] https://www.insta360.com/blog/news/insta360-update-speeds-up-workflow.html

[9] https://onlinemanual.insta360.com/oner/en-us/camera/horizonlock

COUNT I: INFRINGEMENT OF U.S. PATENT NO. 10,015,413

117. GoPro incorporates by reference and re-alleges all of the foregoing paragraphs of this Complaint as if fully set forth herein.

118. GoPro owns by assignment all rights, title, and interest in and to the '413 Patent, with the full and exclusive right to bring suit to enforce the '413 Patent, including the right to recover for past infringement.

119. The '413 Patent is valid and enforceable under United States Patent Laws.

120. Defendants have infringed and are infringing, either literally or under the doctrine of equivalents, the '413 Patent in violation of 35 U.S.C. § 271 et seq., directly and/or indirectly, by making, using, offering for sale, or selling in the United States, and/or importing into the United States, without authority or license, the Accused Camera Systems.

121. The Accused Camera Systems satisfy each and every limitation of at least claims 1, 2, and 13 of the '413 Patent. The Accused Camera Systems are non-limiting examples that were identified based on publicly available information, and GoPro reserves the right to identify additional infringing activities, products and services, including, for example, on the basis of information obtained during discovery.

122. On information and belief, and after a reasonable investigation, each of the Accused Camera Systems is capable of performing at least one shooting mode—*e.g.*, "FreeFrame," "FreeCapture," and "ActionView"—that stretches the sides of an image or video captured in a 4:3 aspect ratio to fit into a 16:9 frame while the center of the frame remains unchanged. Such features infringe GoPro's '413 Patent.

123. As a non-limiting example, Exhibit **G** is an exemplary claim chart matching the limitations of exemplary claims against an exemplary Accused Camera System. On information and belief, all of the Accused Camera Systems include equivalent functionality to that identified in Exhibit **G** and infringe for similar reasons.

124. The contentions in Exhibit **G** are based on publicly available information. GoPro reserves the right to modify these contentions, including, for example, on the basis of information about the Accused Camera Systems that it obtains during discovery.

125. Defendants have been, and currently are, liable for direct infringement of the '413 Patent under 35 U.S.C. § 271(a), because Defendants, their agents, and those acting in concert with Defendants import, use, sell, and offer for sale the Accused Camera Systems in the United States.

126. Defendants knew of the '413 Patent, or should have known of the '413 Patent but were willfully blind to its existence. GoPro has openly marketed and advertised the consumer facing-features of the claimed '413 Patent invention under the branded term "SuperView," which has been incorporated into GoPro's commercially available camera systems starting with the HERO3+ released in October of 2013.[10] GoPro has a practice of marking its products that practice the '413 Patent, including on its virtual marking website.[11]

127. Also, on information and belief, Defendants monitor GoPro's camera systems and technology. For example, in a prospectus for its initial public offering and listing on the Shanghai Stock Exchange's Science and Technology Innovation Board, Insta360 listed GoPro as the first of three "major competitors," and provided a technical comparison between certain of the Accused Camera Systems and GoPro's MAX, HERO8, and HERO9 camera systems, all of which practice the invention of the '413 Patent.

128. At a minimum, Defendants have had actual knowledge of the '413 Patent since at least as early as the filing and/or service of this Complaint and as of the filing of GoPro's parallel complaint asserting the '413 Patent in the International Trade

[10] https://community.gopro.com/s/article/What-is-SuperView?language=en_US

[11] https://gopro.com/en/us/legal/patents

Commission. Additional allegations regarding Defendants' knowledge of the '413 Patent will likely have further evidentiary support after a reasonable opportunity for discovery.

129. Defendants have been, and currently are, liable for inducement of infringement by others of the '413 Patent under 35 U.S.C. § 271(b). Defendants have provided the Accused Camera Systems to others, including customers, in an infringing manner while being on notice of or willfully blind to the '413 Patent and the infringing nature of the Accused Camera Systems. On information and belief, Defendants knew or should have known of the '413 Patent, or deliberately took steps to avoid learning those facts. Nevertheless, Defendants knowingly and intentionally instructed, encouraged, and aided others, including its end-customers, to directly infringe the '413 Patent, including by providing the Accused Camera Systems, instruction manuals, and other product support to enable and facilitate infringement while specifically intending that its actions would result in infringement of at least one claim of the '413 Patent.

130. Defendants have been, and currently are, liable for contributory infringement of the '413 Patent under 35 U.S.C. § 271(c). Defendants have provided the Accused Camera Systems and/or hardware and software components thereof which embody a material part of the claimed inventions of the '413 Patent, are known by Defendants to be specially made or adapted for use in an infringing manner, and are not staple articles with substantial non-infringing uses. The Accused Camera Systems and their supporting hardware and software components are specially designed to infringe at least one claim of the '413 Patent, and such supporting components have no substantial non-infringing uses.

131. Defendants' infringement of the '413 Patent is exceptional and entitles GoPro to attorneys' fees and costs incurred in prosecuting this action under 35 U.S.C. § 285.

132. GoPro has been damaged by Defendants' infringement of the '413 Patent

and will continue to be damaged unless Defendants are enjoined by this Court.

133. GoPro has suffered and continues to suffer irreparable injury for which there is no adequate remedy at law. The balance of hardships favors GoPro, and public interest is not disserved by an injunction.

134. GoPro is entitled to recover from Defendants all damages that GoPro has sustained as a result of Defendants' infringement of the '413 Patent, including without limitation lost profits and not less than a reasonable royalty.

COUNT II: INFRINGEMENT OF U.S. PATENT NO. 10,529,052

135. GoPro incorporates by reference and re-alleges all of the foregoing paragraphs of this Complaint as if fully set forth herein.

136. GoPro owns by assignment all rights, title, and interest in and to the '052 Patent, with the full and exclusive right to bring suit to enforce the '052 Patent, including the right to recover for past infringement.

137. The '052 Patent is valid and enforceable under United States Patent Laws.

138. Defendants have infringed and are infringing, either literally or under the doctrine of equivalents, the '052 Patent in violation of 35 U.S.C. § 271 et seq., directly and/or indirectly, by making, using, offering for sale, or selling in the United States, and/or importing into the United States, without authority or license, the Accused Camera Systems and Accused Editing Applications.

139. The Accused Camera Systems and Accused Editing Applications satisfy each and every limitation of at least claims 1 and 11 of the '052 Patent. The Accused Camera Systems and Accused Editing Applications are non-limiting examples that were identified based on publicly available information, and GoPro reserves the right to identify additional infringing activities, products and services, including, for example, on the basis of information obtained during discovery.

140. On information and belief, and after a reasonable investigation, Defendants' Accused Editing Applications have incorporated manual and automatic

video reframing operations—*e.g.*, zooming, cropping, panning, and keyframes (manual) and object tracking (automatic)—that utilize virtual lens technology to remap input lens distortion in sub-frames of input images to create the appearance of consistent lens distortion across edited output images. These editing features infringe GoPro's '052 Patent.

141. Further, on information and belief, and after a reasonable investigation, Defendants have further offered their Accused Camera Systems with in-camera stabilization technology that also utilizes virtual lens technology to remap input lens distortion in sub-frames of input images to create the appearance of consistent lens distortion across cropped and reframed output images. These Accused Camera Systems also infringe GoPro's '052 Patent.

142. As non-limiting examples, Exhibit **H** is an exemplary claim chart matching the limitations of exemplary claims against an exemplary Accused Camera System and Accused Editing Applications. On information and belief, all of the Accused Camera Systems and Accused Editing Applications include equivalent functionality to that identified in Exhibit **H** and infringe for similar reasons.

143. The contentions in Exhibit **H** are based on publicly available information. GoPro reserves the right to modify these contentions, including, for example, on the basis of information about the Accused Camera Systems and Accused Editing Applications that it obtains during discovery.

144. Defendants have been, and currently are, liable for direct infringement of the '052 Patent under 35 U.S.C. § 271(a), because Defendants, their agents, and those acting in concert with Defendants import, use, sell, and offer for sale the Accused Camera Systems and Accused Editing Applications in the United States.

145. Defendants knew of the '052 Patent, or should have known of the '052 Patent but were willfully blind to its existence. GoPro has openly marketed and advertised the consumer facing-features of the claimed '052 Patent invention in its own editing application such as GoPro Studio and the "FX Reframe" plugin for Adobe

Premiere.[12] GoPro has a practice of marking its products that practice the '052 Patent, including on its virtual marking website.[13]

146. Also, on information and belief, Defendants monitor GoPro's camera systems and technology. For example, in a prospectus for its initial public offering and listing on the Shanghai Stock Exchange's Science and Technology Innovation Board, Insta360 listed GoPro as the first of three "major competitors," and provided a technical comparison between certain of the Accused Camera Systems and GoPro's MAX, HERO8, and HERO9 camera systems, all of which practice the invention of the '052 Patent.

147. At a minimum, Defendants have had actual knowledge of the '052 Patent since at least as early as the filing and/or service of this Complaint and as of the filing of GoPro's parallel complaint asserting the '052 Patent in the International Trade Commission. Additional allegations regarding Defendants' knowledge of the '052 Patent will likely have further evidentiary support after a reasonable opportunity for discovery.

148. Defendants have been, and currently are, liable for inducement of infringement by others of the '052 Patent under 35 U.S.C. § 271(b). Defendants have provided the Accused Camera Systems and Accused Editing Applications to others, including customers, in an infringing manner while being on notice of or willfully blind to the '052 Patent and the infringing nature of the Accused Camera Systems and Accused Editing Applications. On information and belief, Defendants knew or should have known of the '052 Patent, or deliberately took steps to avoid learning those facts. Nevertheless, Defendants knowingly and intentionally instructed, encouraged, and aided others, including its end-customers, to directly infringe the

[12] https://community.gopro.com/s/article/GoPro-legacy-software?language=en_US; https://community.gopro.com/s/article/GoPro-FX-Reframe?language=en_US

[13] https://gopro.com/en/us/legal/patents

'052 Patent, including by providing the Accused Camera Systems and Accused Editing Applications, instruction manuals, and other product support to enable and facilitate infringement while specifically intending that its actions would result in infringement of at least one claim of the '052 Patent.

149. Defendants have been, and currently are, liable for contributory infringement of the '052 Patent under 35 U.S.C. § 271(c). Defendants have provided the Accused Camera Systems, Accused Editing Applications, and/or hardware and software components thereof which embody a material part of the claimed inventions of the '052 Patent, are known by Defendants to be specially made or adapted for use in an infringing manner, and are not staple articles with substantial non-infringing uses. The Accused Camera Systems, Accused Editing Applications, and their supporting hardware and software components are specially designed to infringe at least one claim of the '052 Patent, and such supporting components have no substantial non-infringing uses.

150. Defendants' infringement of the '052 Patent is exceptional and entitles GoPro to attorneys' fees and costs incurred in prosecuting this action under 35 U.S.C. § 285.

151. GoPro has been damaged by Defendants' infringement of the '052 Patent and will continue to be damaged unless Defendants are enjoined by this Court.

152. GoPro has suffered and continues to suffer irreparable injury for which there is no adequate remedy at law. The balance of hardships favors GoPro, and public interest is not disserved by an injunction.

153. GoPro is entitled to recover from Defendants all damages that GoPro has sustained as a result of Defendants' infringement of the '052 Patent, including without limitation lost profits and not less than a reasonable royalty.

COUNT III: INFRINGEMENT OF U.S. PATENT NO. 10,574,894

154. GoPro incorporates by reference and re-alleges all of the foregoing paragraphs of this Complaint as if fully set forth herein.

155. GoPro owns by assignment all rights, title, and interest in and to the '894 Patent, with the full and exclusive right to bring suit to enforce the '894 Patent, including the right to recover for past infringement.

156. The '894 Patent is valid and enforceable under United States Patent Laws.

157. Defendants have infringed and are infringing, either literally or under the doctrine of equivalents, the '894 Patent in violation of 35 U.S.C. § 271 et seq., directly and/or indirectly, by making, using, offering for sale, or selling in the United States, and/or importing into the United States, without authority or license, the Accused Camera Systems and Accused Editing Applications.

158. The Accused Camera Systems and Accused Editing Applications satisfy each and every limitation of at least claim 1 of the '894 Patent. The Accused Camera Systems and Accused Editing Applications are non-limiting examples that were identified based on publicly available information, and GoPro reserves the right to identify additional infringing activities, products and services, including, for example, on the basis of information obtained during discovery.

159. On information and belief, and after a reasonable investigation, since approximately November 2021, Defendants' Accused Camera Systems have included in-camera video stabilization features, referred to as "Quick Flowstate" and "Flowstate 2.0." These stabilization features infringe GoPro's '894 Patent. Further, on information and belief Defendants' Accused Editing Systems, used together with Defendants' Accused Camera Systems further include stabilization features that infringe GoPro's '894 Patent.

160. As non-limiting examples, Exhibit **I** is an exemplary claim chart matching the limitations of an exemplary claim against an exemplary Accused Camera System. On information and belief, all of the Accused Camera Systems, in isolation or working together with one or more of the Accused Editing Applications

include equivalent functionality to that identified in Exhibit **I** and infringe for similar reasons.

161. The contentions in Exhibit **I** are based on publicly available information. GoPro reserves the right to modify these contentions, including, for example, on the basis of information about the Accused Camera Systems and Accused Editing Applications that it obtains during discovery.

162. Defendants have been, and currently are, liable for direct infringement of the '894 Patent under 35 U.S.C. § 271(a), because Defendants, their agents, and those acting in concert with Defendants import, use, sell, and offer for sale the Accused Camera Systems and Accused Editing Applications in the United States.

163. Defendants knew of the '894 Patent, or should have known of the '894 Patent but were willfully blind to its existence. GoPro has openly marketed and advertised the consumer facing-features of the claimed '894 Patent invention under the branded term "HyperSmooth," which has been incorporated into GoPro's commercially available camera systems starting with the HERO7 Black released in September of 2018.[14] GoPro has a practice of marking its products that practice the '894 Patent, including on its virtual marking website.[15]

164. Also, on information and belief, Defendants monitor GoPro's camera systems and technology. For example, in a prospectus for its initial public offering and listing on the Shanghai Stock Exchange's Science and Technology Innovation Board, Insta360 listed GoPro as the first of three "major competitors," and provided a technical comparison between certain of the Accused Camera Systems and GoPro's MAX, HERO8, and HERO9 camera systems, all of which practice the invention of the '894 Patent.

165. On information and belief, Defendants also had knowledge of the

[14] https://community.gopro.com/s/article/What-is-HyperSmooth?language=en_US

[15] https://gopro.com/en/us/legal/patents

invention disclosed and claimed in the '894 Patent no later than December 30, 2020. On that date, an affiliate of Defendants named "Insta360 Innovation Technology Co. Ltd." filed an application for what became Chinese Patent CN112804444B. Chinese Patent CN112804444B cites, as relevant prior art, U.S. Patent No. 10,587,807, which is assigned to GoPro and whose application was the "great-grandfather" to the application that resulted in the '894 Patent. The '894 Patent claims priority through a chain of continuation applications to U.S. Patent No. 10,587,807.

166. At a minimum, Defendants have had actual knowledge of the '894 Patent since at least as early as the filing and/or service of this Complaint and as of the filing of GoPro's parallel complaint asserting the '894 Patent in the International Trade Commission. Additional allegations regarding Defendants' knowledge of the '894 Patent will likely have further evidentiary support after a reasonable opportunity for discovery.

167. Defendants have been, and currently are, liable for inducement of infringement by others of the '894 Patent under 35 U.S.C. § 271(b). Defendants have provided the Accused Camera Systems and Accused Editing Applications to others, including customers, in an infringing manner while being on notice of or willfully blind to the '894 Patent and the infringing nature of the Accused Camera Systems and Accused Editing Applications. On information and belief, Defendants knew or should have known of the '894 Patent, or deliberately took steps to avoid learning those facts. Nevertheless, Defendants knowingly and intentionally instructed, encouraged, and aided others, including its end-customers, to directly infringe the '894 Patent, including by providing the Accused Camera Systems and Accused Editing Applications, instruction manuals, and other product support to enable and facilitate infringement while specifically intending that its actions would result in infringement of at least one claim of the '894 Patent.

168. Defendants have been, and currently are, liable for contributory infringement of the '894 Patent under 35 U.S.C. § 271(c). Defendants have provided

the Accused Camera Systems, Accused Editing Applications, and/or hardware and software components thereof which embody a material part of the claimed inventions of the '894 Patent, are known by Defendants to be specially made or adapted for use in an infringing manner, and are not staple articles with substantial non-infringing uses. The Accused Camera Systems, Accused Editing Applications, and their supporting hardware and software components are specially designed to infringe at least one claim of the '894 Patent, and such supporting components have no substantial non-infringing uses.

169. Defendants' infringement of the '894 Patent is exceptional and entitles GoPro to attorneys' fees and costs incurred in prosecuting this action under 35 U.S.C. § 285.

170. GoPro has been damaged by Defendants' infringement of the '894 Patent and will continue to be damaged unless Defendants are enjoined by this Court.

171. GoPro has suffered and continues to suffer irreparable injury for which there is no adequate remedy at law. The balance of hardships favors GoPro, and public interest is not disserved by an injunction.

172. GoPro is entitled to recover from Defendants all damages that GoPro has sustained as a result of Defendants' infringement of the '894 Patent, including without limitation lost profits and not less than a reasonable royalty.

COUNT IV: INFRINGEMENT OF U.S. PATENT NO. 10,958,840

173. GoPro incorporates by reference and re-alleges all of the foregoing paragraphs of this Complaint as if fully set forth herein.

174. GoPro owns by assignment all rights, title, and interest in and to the '840 Patent, with the full and exclusive right to bring suit to enforce the '840 Patent, including the right to recover for past infringement.

175. The '840 Patent is valid and enforceable under United States Patent Laws.

176. Defendants have infringed and are infringing, either literally or under the

doctrine of equivalents, the '840 Patent in violation of 35 U.S.C. § 271 et seq., directly and/or indirectly, by making, using, offering for sale, or selling in the United States, and/or importing into the United States, without authority or license, the Accused Camera Systems and Accused Editing Applications.

177. The Accused Camera Systems and Accused Editing Applications satisfy each and every limitation of at least claim 1 of the '840 Patent. The Accused Camera Systems and Accused Editing Applications are non-limiting examples that were identified based on publicly available information, and GoPro reserves the right to identify additional infringing activities, products and services, including, for example, on the basis of information obtained during discovery.

178. On information and belief, and after a reasonable investigation, since approximately November 2021, Defendants' Accused Camera Systems have included in-camera video stabilization features, referred to as "Quick Flowstate" and "Flowstate 2.0." These stabilization features infringe GoPro's '840 Patent. Further, on information and belief Defendants' Accused Editing Systems, used together with Defendants' Accused Camera Systems further include stabilization features that infringe GoPro's '840 Patent.

179. As non-limiting examples, Exhibit **J** is an exemplary claim chart matching the limitations of an exemplary claim against an exemplary Accused Camera System. On information and belief, all of the Accused Camera Systems, in isolation or working together with one or more of the Accused Editing Applications include equivalent functionality to that identified in Exhibit **J** and infringe for similar reasons.

180. The contentions in Exhibit **J** are based on publicly available information. GoPro reserves the right to modify these contentions, including, for example, on the basis of information about the Accused Camera Systems and Accused Editing Applications that it obtains during discovery.

181. Defendants have been, and currently are, liable for direct infringement

of the '840 Patent under 35 U.S.C. § 271(a), because Defendants, their agents, and those acting in concert with Defendants import, use, sell, and offer for sale the Accused Camera Systems and Accused Editing Applications in the United States.

182. Defendants knew of the '840 Patent, or should have known of the '840 Patent but were willfully blind to its existence. GoPro has openly marketed and advertised the consumer facing-features of the claimed '840 Patent invention under the branded term "HyperSmooth," which has been incorporated into GoPro's commercially available camera systems starting with the HERO7 Black released in September of 2018.[16] GoPro has a practice of marking its products that practice the '840 Patent, including on its virtual marking website.[17]

183. Also, on information and belief, Defendants monitor GoPro's camera systems and technology. For example, in a prospectus for its initial public offering and listing on the Shanghai Stock Exchange's Science and Technology Innovation Board, Insta360 listed GoPro as the first of three "major competitors," and provided a technical comparison between certain of the Accused Camera Systems and GoPro's MAX, HERO8, and HERO9 camera systems, all of which practice the invention of the '840 Patent.

184. At a minimum, Defendants have had actual knowledge of the '840 Patent since at least as early as the filing and/or service of this Complaint and as of the filing of GoPro's parallel complaint asserting the '840 Patent in the International Trade Commission. Additional allegations regarding Defendants' knowledge of the '840 Patent will likely have further evidentiary support after a reasonable opportunity for discovery.

185. Defendants have been, and currently are, liable for inducement of infringement by others of the '840 Patent under 35 U.S.C. § 271(b). Defendants have

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[16] https://community.gopro.com/s/article/What-is-HyperSmooth?language=en_US

[17] https://gopro.com/en/us/legal/patents

provided the Accused Camera Systems and Accused Editing Applications to others, including customers, in an infringing manner while being on notice of or willfully blind to the '840 Patent and the infringing nature of the Accused Camera Systems and Accused Editing Applications. On information and belief, Defendants knew or should have known of the '840 Patent, or deliberately took steps to avoid learning those facts. Nevertheless, Defendants knowingly and intentionally instructed, encouraged, and aided others, including its end-customers, to directly infringe the '840 Patent, including by providing the Accused Camera Systems and Accused Editing Applications, instruction manuals, and other product support to enable and facilitate infringement while specifically intending that its actions would result in infringement of at least one claim of the '840 Patent.

186. Defendants have been, and currently are, liable for contributory infringement of the '840 Patent under 35 U.S.C. § 271(c). Defendants have provided the Accused Camera Systems, Accused Editing Applications, and/or hardware and software components thereof which embody a material part of the claimed inventions of the '840 Patent, are known by Defendants to be specially made or adapted for use in an infringing manner, and are not staple articles with substantial non-infringing uses. The Accused Camera Systems, Accused Editing Applications, and their supporting hardware and software components are specially designed to infringe at least one claim of the '840 Patent, and such supporting components have no substantial non-infringing uses.

187. Defendants' infringement of the '840 Patent is exceptional and entitles GoPro to attorneys' fees and costs incurred in prosecuting this action under 35 U.S.C. § 285.

188. GoPro has been damaged by Defendants' infringement of the '840 Patent and will continue to be damaged unless Defendants are enjoined by this Court.

189. GoPro has suffered and continues to suffer irreparable injury for which there is no adequate remedy at law. The balance of hardships favors GoPro, and

public interest is not disserved by an injunction.

190. GoPro is entitled to recover from Defendants all damages that GoPro has sustained as a result of Defendants' infringement of the '840 Patent, including without limitation lost profits and not less than a reasonable royalty.

COUNT V: INFRINGEMENT OF U.S. PATENT NO. 11,336,832

191. GoPro incorporates by reference and re-alleges all of the foregoing paragraphs of this Complaint as if fully set forth herein.

192. GoPro owns by assignment all rights, title, and interest in and to the '832 Patent, with the full and exclusive right to bring suit to enforce the '832 Patent, including the right to recover for past infringement.

193. The '832 Patent is valid and enforceable under United States Patent Laws.

194. Defendants have infringed and are infringing, either literally or under the doctrine of equivalents, the '832 Patent in violation of 35 U.S.C. § 271 et seq., directly and/or indirectly, by making, using, offering for sale, or selling in the United States, and/or importing into the United States, without authority or license, the Accused Camera Systems and Accused Editing Applications.

195. The Accused Camera Systems and Accused Editing Applications satisfy each and every limitation of at least claims 1 and 11 of the '832 Patent. The Accused Camera Systems and Accused Editing Applications are non-limiting examples that were identified based on publicly available information, and GoPro reserves the right to identify additional infringing activities, products and services, including, for example, on the basis of information obtained during discovery.

196. On information and belief, and after a reasonable investigation, since approximately 2021, Defendants Accused Camera Systems and Accused Editing Applications have included horizon leveling features, referred to "Horizon Lock." Insta360 claims that its Horizon Lock feature maintains a consistent orientation to achieve more stabilized footage. This feature infringes GoPro's '832 Patent.

197. As non-limiting examples, Exhibit **K** is an exemplary claim chart matching the limitations of exemplary claims against an exemplary Accused Camera System. On information and belief, all of the Accused Camera Systems, in isolation or working together with one or more of the Accused Editing Applications include equivalent functionality to that identified in Exhibit **K** and infringe for similar reasons.

198. The contentions in Exhibit **K** are based on publicly available information. GoPro reserves the right to modify these contentions, including, for example, on the basis of information about the Accused Camera Systems and Accused Editing Applications that it obtains during discovery.

199. Defendants have been, and currently are, liable for direct infringement of the '832 Patent under 35 U.S.C. § 271(a), because Defendants, their agents, and those acting in concert with Defendants import, use, sell, and offer for sale the Accused Camera Systems and Accused Editing Applications in the United States.

200. Defendants knew of the '832 Patent, or should have known of the '832 Patent but were willfully blind to its existence. GoPro has openly marketed and advertised the consumer facing-features of the claimed '832 Patent invention under the branded term "Horizon Leveling," which has been incorporated into GoPro's commercially available camera systems starting with the HERO9 Black released in September of 2020.[18] GoPro has a practice of marking its products that practice the '832 Patent, including on its virtual marking website.[19]

201. Also, on information and belief, Defendants monitor GoPro's camera systems and technology. For example, in a prospectus for its initial public offering and listing on the Shanghai Stock Exchange's Science and Technology Innovation Board, Insta360 listed GoPro as the first of three "major competitors," and provided

[18] https://community.gopro.com/s/article/what-is-horizon-leveling?language=en_US

[19] https://gopro.com/en/us/legal/patents

a technical comparison between certain of the Accused Camera Systems and GoPro's MAX, HERO8, and HERO9 camera systems. The HERO9 camera system practices the invention of the '832 Patent.

202. At a minimum, Defendants have had actual knowledge of the '832 Patent since at least as early as the filing and/or service of this Complaint and as of the filing of GoPro's parallel complaint asserting the '832 Patent in the International Trade Commission. Additional allegations regarding Defendants' knowledge of the '832 Patent will likely have further evidentiary support after a reasonable opportunity for discovery.

203. Defendants have been, and currently are, liable for inducement of infringement by others of the '832 Patent under 35 U.S.C. § 271(b). Defendants have provided the Accused Camera Systems and Accused Editing Applications to others, including customers, in an infringing manner while being on notice of or willfully blind to the '832 Patent and the infringing nature of the Accused Camera Systems and Accused Editing Applications. On information and belief, Defendants knew or should have known of the '832 Patent, or deliberately took steps to avoid learning those facts. Nevertheless, Defendants knowingly and intentionally instructed, encouraged, and aided others, including its end-customers, to directly infringe the '832 Patent, including by providing the Accused Camera Systems and Accused Editing Applications, instruction manuals, and other product support to enable and facilitate infringement while specifically intending that its actions would result in infringement of at least one claim of the '832 Patent.

204. Defendants have been, and currently are, liable for contributory infringement of the '832 Patent under 35 U.S.C. § 271(c). Defendants have provided the Accused Camera Systems, Accused Editing Applications, and/or hardware and software components thereof which embody a material part of the claimed inventions of the '832 Patent, are known by Defendants to be specially made or adapted for use in an infringing manner, and are not staple articles with substantial non-infringing

uses. The Accused Camera Systems, Accused Editing Applications, and their supporting hardware and software components are specially designed to infringe at least one claim of the '832 Patent, and such supporting components have no substantial non-infringing uses.

205. Defendants' infringement of the '832 Patent is exceptional and entitles GoPro to attorneys' fees and costs incurred in prosecuting this action under 35 U.S.C. § 285.

206. GoPro has been damaged by Defendants' infringement of the '832 Patent and will continue to be damaged unless Defendants are enjoined by this Court.

207. GoPro has suffered and continues to suffer irreparable injury for which there is no adequate remedy at law. The balance of hardships favors GoPro, and public interest is not disserved by an injunction.

208. GoPro is entitled to recover from Defendants all damages that GoPro has sustained as a result of Defendants' infringement of the '832 Patent, including without limitation lost profits and not less than a reasonable royalty.

COUNT VI: INFRINGEMENT OF U.S. PATENT NO. D789,435

209. GoPro incorporates by reference and re-alleges all of the foregoing paragraphs of this Complaint as if fully set forth herein.

210. GoPro owns by assignment all rights, title, and interest in and to the D'435 Patent, with the full and exclusive right to bring suit to enforce the D'435 Patent, including the right to recover for past infringement.

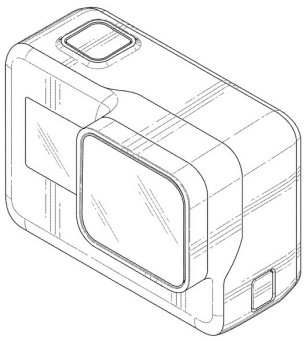
211. The D'435 Patent is valid and enforceable under United States Patent Laws.

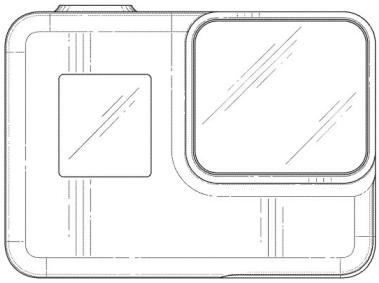
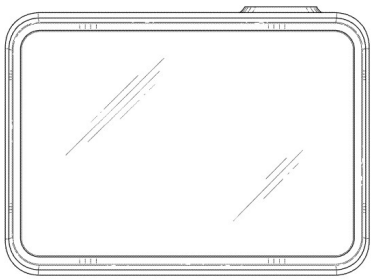
212. The D'435 Patent discloses an "ornamental design for a camera." D'435 Patent, Claim.

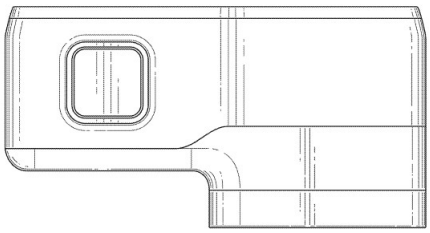
213. Defendants have infringed and are infringing, either literally or under the doctrine of equivalents, the D'435 Patent in violation of 35 U.S.C. § 271 et seq., by making, using, offering for sale, or selling in the United States, and/or importing into

the United States, without authority or license, the Insta360 Ace and Ace Pro camera systems (hereinafter "the D'435 Accused Products"), which embody the ornamental design claimed by the D'435 Patent. The D'435 Accused Products are non-limiting examples that were identified based on publicly available information, and GoPro reserves the right to identify additional infringing products, including for example on the basis of information obtained during discovery.

214. The table below compares exemplary figures from the D'435 Patent with images of the D'435 Accused Products from Defendants' website, www.insta360.com, and marketing materials. In the eye of an ordinary observer, giving such attention as a purchaser usually gives, the designs of Defendants' Ace and Ace Pro camera systems are substantially the same as the design illustrated and claimed in the D'435 Patent.

The D'435 Patent	D'435 Patent Accused Products
 FIG. 3	**Ace**  **Ace Pro** 

 FIG. 5	**Ace**  **Ace Pro** 
 FIG. 6	**Ace**  **Ace Pro** 

 FIG. 9	**Ace**  **Ace Pro** 

215. Further, as non-limiting examples, Exhibit **L** is an exemplary claim chart matching the design of the D'435 Patent to the Insta360 D'435 Accused Products.

216. The contentions in Exhibit **L** are based on publicly available information. GoPro reserves the right to modify these contentions, including, for example, on the basis of information that it obtains during discovery.

217. Defendants knew of the D'435 Patent, or should have known of the D'435 Patent but were willfully blind to its existence. GoPro has openly marketed and advertised the design of the D'435 Patent, which has been incorporated into GoPro's commercially available "HERO" line of camera systems starting with the HERO5 Black released in October 2016. GoPro has a practice of marking its products that practice the D'435 Patent, including on its virtual marking website.[20]

218. Also, on information and belief, Defendants monitor GoPro's camera systems. For example, in a prospectus for its initial public offering and listing on the Shanghai Stock Exchange's Science and Technology Innovation Board, Insta360

[20] https://gopro.com/en/us/legal/patents

listed GoPro as the first of three "major competitors," and provided a comparison between certain of the Accused Camera Systems and GoPro's MAX, HERO8, and HERO9 camera systems. The HERO8 and HERO9 camera systems embody the patented design of the D'435 Patent.

219. At a minimum, Defendants have had actual knowledge of the D'435 Patent since at least as early as the filing and/or service of this Complaint and as of the filing of GoPro's parallel complaint asserting the D'435 Patent in the International Trade Commission. Additional allegations regarding Defendants' knowledge of the D'435 Patent will likely have further evidentiary support after a reasonable opportunity for discovery.

220. Defendants' infringement of the D'435 Patent is exceptional and entitles GoPro to attorneys' fees and costs incurred in prosecuting this action under 35 U.S.C. § 285.

221. GoPro has been damaged by Defendants' infringement of the D'435 Patent and will continue to be damaged unless Defendants are enjoined by this Court.

222. GoPro has suffered and continues to suffer irreparable injury for which there is no adequate remedy at law. The balance of hardships favors GoPro, and public interest is not disserved by an injunction.

223. GoPro is entitled to recover from Defendants all damages that GoPro has sustained as a result of Defendants' infringement of the D'435 Patent, including without limitation lost profits and not less than a reasonable royalty.

224. GoPro is also entitled to recover from Defendants the extent of their total profits for the D'435 Accused Products as set forth in 35 U.S.C. § 289.

PRAYER FOR RELIEF

WHEREFORE, GoPro respectfully requests:

A. That Judgment be entered that Defendants have infringed one or more claims of the Patents-in-Suit, directly and indirectly, literally and/or under the doctrine of equivalents;

B. That, in accordance with 35 U.S.C. § 283, Defendants and all their affiliates, employees, agents, officers, directors, attorneys, successors, and assigns and all those acting on behalf of or in active concert or participation with any of them, be preliminarily and permanently enjoined from (1) infringing the Patents-in-Suit and (2) making, using, selling, and offering for sale the Camera Systems and Video Editing Applications;

C. An order directing Defendants to file with the Court and serve upon GoPro's counsel within thirty (30) days after entry of the order of injunction, a report setting forth the manner and form in which Defendants have complied with the injunction, including the provision relating to destruction and recall of infringing products and materials

D. An award of damages sufficient to compensate GoPro for Defendants' infringement under 35 U.S.C. § 284, including an enhancement of damages on account of Defendants' willful infringement;

E. An award of Defendants' profits for the D'435 Accused Products under 35 U.S.C. § 289, including an enhancement of damages on account of Defendants' willful infringement;

F. That the case be found exceptional under 35 U.S.C. § 285 and that GoPro be awarded its reasonable attorneys' fees;

G. Costs and expenses in this action;

H. An award of prejudgment and post-judgment interest; and

I. Such other and further relief as the Court may deem just and proper.

DATED: March 29, 2024

QUINN EMANUEL URQUHART & SULLIVAN, LLP

By */s/ Sean S. Pak*

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Attorneys for Plaintiff, GoPro, Inc.

DEMAND FOR JURY TRIAL

Pursuant to Rule 38(b) of the Federal Rules of Civil Procedure, GoPro respectfully demands a trial by jury on all issues triable by jury.

DATED: March 29, 2024

QUINN EMANUEL URQUHART & SULLIVAN, LLP

By */s/ Sean S. Pak*

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