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Attorneys for Plaintiff XiDrone Systems, Inc.

IN THE UNITED STATES DISTRICT COURT FOR THE DISTRICT OF UTAH, CENTRAL DIVISION

XIDRONE SYSTEMS, INC.,

FORTEM TECHNOLOGIES, INC.,

v.

Plaintiff,

COMPLAINT

JURY TRIAL DEMANDED

Case No. 2:23-cv-00430-HCN

Judge Howard C. Nielson, Jr.

Defendant.

Plaintiff XiDrone Systems, Inc. asserts claims against Defendant Fortem Technologies,

Inc. and alleges as follows:

INTRODUCTION

1. This is an action for patent infringement arising under the patent laws of the United States, 35 U.S.C. §§ 101, *et seq.*, including 35 U.S.C. § 271.

THE PARTIES

2. Plaintiff XiDrone Systems, Inc. ("XiDrone") is a Florida Corporation with a place of business at 272 Burnt Pine Drive, Naples, Florida 34119.

3. On information and belief, Defendant Fortem Technologies, Inc. ("Fortem" or "Defendant") is a Delaware corporation with a principal place of business at 1064 S. North County Boulevard, Floor 6, Pleasant Grove, Utah 84062.

JURISDICTION & VENUE

4. This Court has subject matter jurisdiction over all causes of action set forth herein pursuant to 28 U.S.C. §§ 1331 and 1338(a) because this action arises under the patent laws of the United States, including 35 U.S.C. § 271, *et seq*.

5. This Court has personal jurisdiction over Fortem because Fortem has a principal place of business in the State of Utah and in this Judicial District. Fortem therefore has minimum contacts with the State of Utah and has purposefully availed itself of the privileges of conducting business in the State of Utah. *See* <u>https://fortemtech.com/about</u>.

6. On information and belief, Fortem has committed and continues to commit acts of infringement in the State of Utah and in this Judicial District and Division, and the claims addressed in this Complaint arise out of and relate to such acts, including at least by using, offering for sale, and selling the infringing technology, products, systems, methods, and/or computer software within this District and Division.

7. Venue is proper in this Court pursuant to 28 U.S.C. §§ 1391 and 1400(b) because
(i) Fortem has a regular and established place of business in this Judicial District and Division
and (ii) Fortem is registered with, and authorized to transact business in, the State of Utah.

Fortem's registered agent in the State of Utah is Mr. Timothy E. Bean, 1064 S. North County Boulevard, 6th Floor, Pleasant Grove, Utah 84062.

XIDRONE'S TECHNOLOGY

8. XiDrone was founded by Mr. Dwaine A. Parker who is the first named inventor on several counter-drone related patents, including United States Patent No. 9,689,976 and United States Patent No. 11,378,651.

9. Mr. Parker was increasingly aware of the dangers of unauthorized drones while logging nearly 5,000 flight hours as a law enforcement helicopter pilot, airplane pilot, and unit safety officer for the Collier County Sheriff's Office in Naples, Florida.

10. Mr. Parker began his 27-year career as a Deputy Sheriff with the Hillsborough County Sheriff's Office in Florida, working as a Tactical Flight Officer, a Road Patrol Deputy, a Traffic Homicide Investigator, and an Aircraft Accident Investigator.

11. Mr. Parker also served in the United States Army and was honorably discharged as a Disabled Veteran at the rank of Sergeant.

12. Mr. Parker co-founded XiDrone to find a solution for the security threat that small class 1 and class 2 drones were posing to the public, government, and military sectors. Mr. Parker recruited a team of engineers and developed systems and methods to detect, track, identify, and/or deter small class 1 and class 2 drones. Mr. Parker filed his first patent application in December 2014, and he presently holds thirteen United States patents and one European patent, which is inclusive of twelve European countries.

13. Since its formation, XiDrone has and continues to develop reliable and costeffective counter-drone solutions that detect, identify, track, monitor, and if necessary, mitigate,

small class 1 and class 2 drones. XiDrone's technologies include mobile and fixed site systems and can be integrated on land, air, or sea. *See* Technologies, XiDrone Systems,

https://xidronesystems.com/technologies.

14. XiDrone's technology includes: (i) a detection element that uses a x-band radar and radio frequency (RF) technologies that enable rapid notification of class 1 and class 2 drones operating near sensitive or protected airspace; (ii) small class 1 and class 2 drone detection and tracking that combines x-band radar, multiple RF technologies and a laser range finder (LRF) to produce real-time data that identifies class 1 and class 2 drones and displays mitigation options; (iii) an identification element using electro optical/infrared (EO/IR) technology that, coupled with data from the other elements, generates a class 1 and class 2 drone's threat assessment and triggers the appropriate mitigation; (iv) multi-sensors and forensic class 1 and class 2 drone databases to assess a class 1 and class 2 drone's threat; and (v) mitigation options, including a fire control system, that ensures precise class 1 and class 2 drone threat countermeasures, while simultaneously avoiding negative collateral effects. In addition to an RF deterrent, the present system can use the ground-based sensors to detect an unmanned aerial vehicle (UAV) which enters protected airspace and dispatch a counter drone to engage the unauthorized UAV with a kinetic response. This option also affords a second mitigation method that avoids the challenges that may be found with RF signals being received or transmitted within challenging urban environments.

15. XiDrone has and continues to offer for sale a fixed and mobile Counter-Unmanned Aircraft Systems (C-UAS) command unit that is hurricane, tornado, UL1 small arms, and Class A fire resistant; thus, XiDrone is offering personal protection for the occupants within

the C-UAS command unit. XiDrone's C-UAS detection and mitigation vehicle provides: (i) a 40 foot telescoping radar tower; (ii) an x-band radar to detect class 1 and class 2 drones, manned aircraft, moving vehicles, and pedestrians; (iii) detection of manned air traffic within 50 miles from the mobile vehicle (line of sight); (iv) detection of class 1 and class 2 drones within three miles from the mobile vehicle; (vi) detection of non-DJI drones within three miles from the mobile vehicle; (vi) detection of non-DJI drones within three miles from the mobile vehicle; (vi) detection of non-DJI drones within three miles from the mobile vehicle; (vii) RF deterrent capability of class 1 and class 2 drones within three miles from the mobile vehicle (line of sight); (viii) a two-person workstation with additional workspace; (ix) four HDTV monitors; (x) a common operating picture console (air map, radar, drone data, drone mitigation); (xi) an FAA manned aircraft communications console (Air Boss, firefighting, DHS, FEMA); (xii) a server room with the capability for additional external sensors/equipment; (xiii) cloud storage of all sensor data recorded; (xiv) a 12 kilowatt quiet generator with 72-hour run time; (xv) exterior unit CCTV with a day and night vision system; and (xvi) a GPS navigation system.

THE APRIL 2015 SANDIA REPORT PROCLAIMS AN URGENT NEED EXISTS

16. The April 2015 Sandia Report, which is a Report that was commissioned by the United States Government, was issued about four months after the priority date of XiDrone's patents. As a result, the Sandia Report shows the state of the art in April 2015.

17. "The purpose of [the Sandia Report] is to briefly frame the challenges of detecting low, slow, and small (LSS) unmanned aerial systems (UAS)." *See* Exhibit "C," Sandia Report at
3. "The conclusion drawn [in the Sandia Report] from internal discussions and external reports is the following; detection of LSS UAS is a challenging problem that cannot be achieved with a

single detection modality for all potential targets. Classification of LSS UAS, especially

classification in the presence of background clutter (e.g., urban environment) or other non-

threating targets (e.g., birds), is under-explored." See Exhibit "C," Sandia Report at 3.

18. The Sandia Report also summarizes the NATO Industrial Advisory Group Study,

which was last updated in July 2013:

The NATO study found compelling evidence on *the complications of UAS detection due to the physical size of UAS and minimal detection phenomenology*. It was stated in the report, "The challenge for LSS threat detection for current high frequency sensors is the *false alarm plots and how to engage with the real LSS threats that are in the velocity domain of clutter or natural objects such as birds, 'angels' or ground vehicles*. The combinations of sea and land clutter, climatic and atmospheric anomalies are compounded by the high number of real contacts varying from large qualities of birds to surface and air objects in a congested battle space."

Compounding the difficulty of detecting a UAS within a cluttered environment, UAS are generally difficult to detect. The radar cross section (RCS) for two small commercially available platforms was measured to be -15dBm2 and is theorized to be -30dBm2 if the UAS is constructed with an RF transparent material. Imaging commercially available quadcopters with EO/IR visible, MWIR, and LWIR resulted in low contrast images, and the amount of data required to provide a reasonable response time is very large. Acoustic detectors were successfully demonstrated and identified a UAS from 25 meters at an elevation of 10 meters using a microphone array (ambient wind was cited as the major reason for such reduced detection range with acoustics in this field test). RF detection is promising since currently available COTS UAS technology requires a transmission and receive signal from a human user. The detection of RF becomes highly complicated if a UAS uses open source software or is programmed to require no human interaction. Disturbances within the magnetic field around a UAS has potential to be detected, but is dependent on the materials used and the physical size of the system.

The NATO report concludes by stating that **urgent action is necessary** if the operational risks from these platforms are to be minimized and states that the application of some innovative tactics and technologies to effectively counter these threats **will be necessary**. The mixture of traditional sensors used in GBAD systems and new technologies is stated as critical to build a robust system capable of solving the LSS UAS problem. See Exhibit "C," Sandia Report at 21 (emphasis added).

19. The PowerPoint presentation accompanying the Sandia Report further provides:

NATO Report Summary



- (NATO) Industrial Advisory Group Study SG-170, "The Engagement of Low, Slow and Small Aerial targets by GBAD"
 - 5th study, spanning 8 years, published in 2013
- LSS UAS detection techniques and mitigation techniques
- Discussion of civilian attack concerns
 - "Even short-range mini-UAVs with simplistic effectors such as light automatic guns have the potential to create havoc and major psychological and media impact."
- <u>"No sensor type provides a sufficient tracking and</u> identification capability used by itself against the LSS threat."
 - Goes on to state the need for sensor data fusion

See Exhibit "C," Sandia Report at 40.

NATO Report Summary (con't)



- "In light of the gaps at the effector and sensor level, it is proposed that a further study should be conducted to examine the optimum sensor/effector mix to counter the LSS evolving threat."
- "To provide a satisfactory performance, the use of an adequate mix of sensors will be crucial."

Conclusion: "Urgent action is necessary if the operational risks from these platforms are to be minimized and it requires the application of some innovative tactics and technologies to effectively counter these threats."

See Exhibit "C," Sandia Report at 41.

 Detecting targets is not the hard part. Differentiating them from the background clutter is the problem.

• Low, slow, small doesn't help the detection problem

See Exhibit "C," Sandia Report at 42.

Summary



- LSS (or LFS) UAS detection is very difficult
 - To this point, not a lot of investment for this particular problem
- Mitigation requires collateral damage trade off
- Liteye, SRC, DeTect, DroneShield, CellAntenna
- Not just an incremental improvement of technology to detect/mitigate
 - This is a differentiation problem, and will require data fusion, potentially even machine learning

See Exhibit "C," Sandia Report at 48.

20. The Sandia and NATO Reports therefore show that: (1) it was "very difficult" to detect small drones for several reasons, including clutter; (2) differentiating the drones from the background clutter was a problem; and (3) "urgent action [was] necessary" to find "some innovative tactics and technologies to effectively counter these threats." *See* Exhibit "C," Sandia Report.

XIDRONE'S U.S. PATENT NO. 9,689,976

21. On June 27, 2017, the United States Patent and Trademark Office duly and legally issued United States Patent No. 9,689,976, entitled "Deterrent For Unmanned Vehicle" (the "'976 Patent"). A true and correct copy of the '976 Patent is attached hereto as Exhibit "A." As part of the public records, the prosecution history of the '976 Patent is incorporated herein by reference. The priority date for the claims of the '976 Patent is no later than December 19, 2014

22. XiDrone is the owner, by assignment, of all right, title, and interest in and to the '976 Patent, including the right to bring suit for past, present, and future patent infringement, and to collect past, present, and future damages.

23. As of the filing date of this Complaint, three entities have non-exclusively licensed XiDrone's patent portfolio, including the '976 Patent.

NO CLAIM OF XIDRONE'S '976 PATENT IS ABSTRACT

24. The claims of XiDrone's '976 Patent are focused on an advancement over the prior art such that their character as a whole is not directed to excluded subject matter, such as an abstract idea, or any other subject matter excluded under 35 U.S.C. § 101.

25. In fact, as shown in the prosecution history of the '976 Patent, the Patent Office determined that the combinations claimed in the claims of XiDrone's '976 Patent are novel and nonobvious. The Patent Office also determined that the claims of XiDrone's '976 Patent are not abstract or unpatentable under 35 U.S.C. § 101.

26. Thus far, the Patent Office has granted or allowed XiDrone thirteen U.S. patents, all with certain commonality in their genealogy. At no time during the extensive examination and prosecution of the respective patent applications that matured into these thirteen patents, including the '976 Patent, did the Patent Office ever issue a § 101 rejection to the applicant XiDrone.

27. Moreover, at present, three other drone security companies have purchased licenses to XiDrone's patent portfolio, including the '976 Patent. At no time during their respective presumably comprehensive evaluations of the '976 Patent prior to their taking a license did any of these companies raise a § 101 concern, defense, or argument with XiDrone.

28. Neither the system, the method, nor the product claimed in the '976 Patent involve a process that could be done manually by one or more people. The systems and methods claimed in the '976 Patent also provide concrete and specific ways of detecting undesirable drones by quickly analyzing multiple sensor data to identify vulnerable characteristics in making a threat assessment based on specific unique data and parameters of each UAV and/or implementing a specific, concrete, and unique countermeasure to address the undesirable drone before it can reach its intended target.

29. For example, it is well-known that it is impossible for a human being to scan a radio frequency spectrum of the type disclosed and claimed in the '976 patent without the use of unique and specialized equipment and hardware. Indeed, it is well-known that it is impossible for a human being to even detect radio frequency transmissions of the type disclosed and claimed in the '976 patent without the use of specialized equipment and hardware.

30. Moreover, the detection of radio frequency transmissions is not remotely analogous to a human being looking at the sky through a pair of binoculars. For one thing, human eyes are only sensitive to visible light, which is far removed from the "radio frequency" disclosed and claimed in the '976 patent. Human eyes have no visual sensitivity to radio frequency.

31. In addition, human eyes work only along straight "lines of sight." Human eyes cannot see around buildings, through clouds, through fog, through smoke, or over-the-horizon. In short, human eyes are confounded by any challenge that does not permit a straight-on line-ofsight view through a visually-transparent medium. In contrast, radio frequency detection

equipment is not compromised by clouds, fog, smoke, signals bouncing off of (and around) buildings and similar situations that simply "kill" human eyesight.

32. Not surprisingly, simple camouflaging of a rogue drone further compromises the ability of a human-visual-spotter to even see a drone, much less to evaluate and analyze whether that drone would be potentially troublesome. But radio frequency does not care if the drone is camouflaged or not. In each eventuality, the drone can be detected by the specialized radio frequency equipment and methods that the claimed inventions may employ to detect and identify an undesirable drone that a common receiver cannot detect, including but not limited to signals that are protected under Federal Law.

33. Human eyes also do not work well in the dark. In contrast, radio frequency equipment and methods of the type disclosed and claimed in the '976 patent do not care if it is night or day, dark or light, sunny or cloudy, bright or overcast, etc.

34. In fact, one of the advantages of XiDrone's technology is its ability to detect an incoming drone by, for example, radar and/or the reception of unique radio frequency transmissions, long before it can be seen by human eyes or detected with common, off-the-shelf (OTS), RF equipment.

35. Under step 1 of *Alice*, claim 1 is not abstract. The claim terms render the claim specific, concrete, and avoid preemption. As of the priority date of the '976 patent there was an urgent need for counter-drone technology; as it did not exist. Claim 1 is not abstract because the claim terms render claim 1 tangible, concrete, and do not preempt every way providing a counter-drone multi-sensor system.

36. In particular, the claim term "multi-sensor system" renders claim 1 patentable and

not abstract. Prior to XiDrone's invention, a multi-sensor counter-drone system did not exist.

As explained in the Sandia Report:

"The conclusion drawn [in the Sandia Report] from internal discussions and external reports is the following; detection of LSS UAS is *a challenging problem that cannot be achieved with a single detection modality for all potential targets*. Classification of LSS UAS, especially classification in the presence of background clutter (e.g., urban environment) or other non-threating targets (e.g., birds), is under-explored."

37. With respect to the NATO Report, the Sandia Report states:

The NATO report concludes by stating that **urgent action is necessary** if the operational risks from these platforms are to be minimized and states that the application of some innovative tactics and technologies to effectively counter these threats **will be necessary**. The mixture of traditional sensors used in GBAD systems and new technologies is stated as critical to build a robust system capable of solving the LSS UAS problem.

38. Claim 1 also is not abstract because it claims a countermeasure comprising at

least one of a radio frequency transmitter and a kinetic effect. The claimed countermeasures

render claim 1 tangible and concrete because they are an affirmative and specific step intended to

address an undesirable unmanned aerial vehicle. The '976 Patent teaches a person having

ordinary skill in the art non-limiting examples of specific and concrete countermeasure in the

form of a counter sUAS, or attack drone:

In addition, a counter sUAS can be dispatched with autonomous navigation data being supplied by the system of present invention to locate and intentionally disable the opposing sUAS by flying into it, dropping a net on the threat, covering it with spray foam or liquid or capturing the opposing sUAS.

Exhibit "A," '976 Patent at Column 8, lines 55-60.

39. Claim 2 not abstract because it specifies that the kinetic effect comprises a nondestructive device. The '976 Patent teaches a person having ordinary skill in the art non-limiting examples of specific and concrete non-destructive devices in the Abstract and at column 8, lines 18-60. Exhibit "A," '976 Patent at Abstract and Column 8, lines 18-60. The claimed non-destructive device renders claim 2 tangible and concrete.

40. Claim 3 is not abstract because it specifies that the kinetic effect comprises a destructive device. The '976 Patent teaches a person having ordinary skill in the art non-limiting examples of specific and concrete destructive devices in the Abstract and at column 8, lines 18-60. Exhibit "A," '976 Patent at Abstract and Column 8, lines 18-60. The claimed destructive device renders claim 3 tangible and concrete.

41. Claim 4 is not abstract because it specifies that the kinetic effect comprises both a non-destructive device and a destructive device. The '976 Patent teaches a person having ordinary skill in the art non-limiting examples of specific and concrete non-destructive and destructive devices in the Abstract and at column 8, lines 18-60. Exhibit "A," '976 Patent at Abstract and Column 8, lines 18-60. The claimed non-destructive and destructive devices render claim 4 tangible and concrete.

THE INVENTIONS CLAIMED IN XIDRONE'S '976 PATENT WERE NOT WELL-UNDERSTOOD, ROUTINE, OR CONVENTIONAL

42. Under step 2 of *Alice*, claims 1-4 are drawn to inventive concepts and are patentable under § 101.

43. The Background sections of XiDrone's patents and the Sandia and NATO Reports make it clear that there was nothing "well-understood, routine, [and] conventional" about the technology claimed in XiDrone's patents, including the '976 patent.

44. The "ordered combinations" of claims 1-4 also provide "inventive concepts."

45. As set forth in the '976 Patent, the specific innovations set forth in the '976 Patent have a very significant real-world impact on the ability to detect small drones, assess whether the small drone is a threat, and implement a countermeasure, which the prior art systems lacked. This type of real-world, measurable improvement to the detection, classification, assessment, and countermeasure of small drones is precisely the type of improvement that the Supreme Court and the Federal Circuit have repeatedly held satisfies Section 101.

XIDRONE'S U.S. PATENT NO. 11,378,651

46. On July 5, 2022, the United States Patent and Trademark Office duly and legally issued United States Patent No. 11,378,651, entitled "Deterrent For Unmanned Aerial Systems" (the "651 Patent"). A true and correct copy of the '651 Patent is attached hereto as Exhibit "B." As part of the public records, the prosecution history of the '651 Patent is incorporated herein by reference. The priority date for the claims of the '651 Patent is no later than December 19, 2014.

47. XiDrone is the owner, by assignment, of all right, title, and interest in and to the '651 Patent, including the right to bring suit for past, present, and future patent infringement, and to collect past, present, and future damages.

48. As of the filing date of this Complaint, three entities have non-exclusively licensed XiDrone's patent portfolio, including the '651 Patent.

NO CLAIM OF XIDRONE'S '651 PATENT IS ABSTRACT

49. The claims of XiDrone's '651 Patent are focused on an advancement over the prior art such that their character as a whole is not directed to excluded subject matter, such as an abstract idea, or any other subject matter excluded under 35 U.S.C. § 101.

50. In fact, as shown in the prosecution history of the '651 Patent, the Patent Office determined that the combinations claimed in the claims of XiDrone's '651 Patent are novel and nonobvious. The Patent Office also determined that the claims of XiDrone's '651 Patent are not abstract or unpatentable under 35 U.S.C. § 101.

51. Thus far, the Patent Office has granted or allowed XiDrone thirteen U.S. patents, all with certain commonality in their genealogy. At no time during the extensive examination and prosecution of the respective patent applications that matured into these thirteen patents, including the '651 Patent, did the Patent Office ever issue a § 101 rejection to the applicant XiDrone.

52. Moreover, at present, three other drone security companies have purchased licenses to XiDrone's patent portfolio, including the '651 Patent. At no time during their respective presumably comprehensive evaluations of the '651 Patent prior to their taking a license did any of these companies raise a § 101 concern, defense, or argument with XiDrone.

53. Neither the system, the method, nor the product claimed in the '651 Patent involve "a process that could be done manually by one or more people." The systems and methods claimed in the '651 Patent also provide concrete and specific ways of detecting undesirable drones by quickly analyzing multiple sensor data to identify vulnerable characteristics in making a threat assessment based specific unique data and parameters of each UAV and/or implementing a specific, concrete, and unique countermeasure to address the undesirable drone before it can reach its intended target.

54. It is well-known that it is impossible for a human being to scan a radio frequency spectrum of the type disclosed and claimed in the '651 patent without the use of specialized

equipment and hardware. Indeed, it is well-known that it is impossible for a human being to even detect radio frequency transmissions of the type disclosed and claimed in the '651 patent without the use of specialized equipment and hardware.

55. Moreover, the detection of radio frequency transmissions is not remotely analogous to a human being looking at the sky through a pair of binoculars. For one thing, human eyes are only sensitive to visible light, which is far removed from the "radio frequency" disclosed and claimed in the '651 patent. Human eyes have no visual sensitivity to radio frequency.

56. In addition, human eyes work only along straight "lines of sight." Human eyes cannot see around buildings, through clouds, through fog, through smoke, or over-the-horizon. In short, human eyes are confounded by any challenge that does not permit a straight-on line-of-sight view through a visually-transparent medium. In contrast, radio frequency detection equipment is not compromised by clouds, fog, smoke, signals bouncing off of (and around) buildings and similar situations that simply "kill" human eyesight.

57. Not surprisingly, simple camouflaging of a rogue drone further compromises the ability of a human-visual-spotter to even see a drone, much less to evaluate and analyze whether that drone would be potentially troublesome. But radio frequency does not care if the drone is camouflaged or not. In each eventuality, the drone can be detected by the specialized radio frequency equipment and methods that the claimed inventions may employ to detect and identify an undesirable drone that a common receiver cannot detect, including but not limited to signals that are protected under Federal Law.

58. Human eyes also do not work well in the dark. In contrast, radio frequency equipment and methods of the type disclosed and claimed in the '651 patent do not care if it is night or day, dark or light, sunny or cloudy, bright or overcast, etc.

59. In fact, one of the advantages of XiDrone's technology is its ability to detect an incoming drone by, for example, radar and/or the reception of unique radio frequency transmissions, long before it can be seen by human eyes or detected with common, OTS, RF equipment.

60. Under step 1 of *Alice* claim 1 of the '651 patent and all of its dependent claims are not abstract. The claim terms render the claims specific, concrete, and avoid preemption. As of the priority date of the '651 patent there was an urgent need for counter-drone technology; as it did not exist. Claim 1 is not abstract because its claim terms render claim 1 tangible, concrete, and do not preempt every way for interdicting a target such as an undesirable drone that includes a system-operated counter unmanned aerial vehicle that is dispatched to intercept the detected and undesirable drone. The '651 Patent teaches a person having ordinary skill in the art non-limiting examples of specific and concrete countermeasure in the form of a counter sUAS, or attack drone:

In addition, a counter sUAS can be dispatched with autonomous navigation data being supplied by the system of present invention to locate and intentionally disable the opposing sUAS by flying into it, dropping a net on the threat, covering it with spray foam or liquid or capturing the opposing sUAS.

Exhibit "B," '651 Patent at Column 19, lines 51-57.

61. Claims 1, 3, 8, 10, 11, 13, 14, 16, 19, and 20 also are not abstract because the claimed multi-sensor system includes a counter unmanned aerial vehicle, such as a counterdrone. Prior to XiDrone's invention, a multi-sensor counter-drone system that includes a counter

unmanned aerial vehicle, such as a counter-drone, did not exist. As explained in the Sandia

Report:

"The conclusion drawn [in the Sandia Report] from internal discussions and external reports is the following; detection of LSS UAS is *a challenging problem that cannot be achieved with a single detection modality for all potential targets*. Classification of LSS UAS, especially classification in the presence of background clutter (e.g., urban environment) or other non-threating targets (e.g., birds), is under-explored."

See Exhibit "C," Sandia Report.

62. With respect to the NATO Report, the Sandia Report states:

The NATO report concludes by stating that **urgent action is necessary** if the operational risks from these platforms are to be minimized and states that the application of some innovative tactics and technologies to effectively counter these threats **will be necessary**. The mixture of traditional sensors used in GBAD systems and new technologies is stated as critical to build a robust system capable of solving the LSS UAS problem.

63. No prior art system disclosed at least one radio receiver configured to detect a

radio frequency (RF) signature based on a radio signal communicated between an aerial target and a remote control device.

64. No prior art system identified the target based on the detected RF signature and

located the target based on the radar detection, and based on at least one of target identification and/or target location, determined if the target is an unmanned aerial system (UAS).

65. No prior art system employed UAS location information to dispatch a counter unmanned aerial vehicle, or counter-drone, to the proximity of a target to interdict the target such as an undesirable drone. No prior art system employed UAS location information to dispatch a counter unmanned aerial vehicle, or counter-drone, that is at least in part navigated by an RF control signal to aerially navigate and to intercept within the proximity of the detected target based on navigation data supplied by the system.

66. No prior art system detected employed autonomous navigation data supplied by the system to aerially navigate a counter unmanned aerial vehicle, such as a counter drone.

67. No prior art system determined if the UAS comprises a target of interest or threat when the UAS's location is within a predetermined airspace boundary around a protected interest.

THE INVENTIONS CLAIMED IN XIDRONE'S '651 PATENT WERE NOT WELL-UNDERSTOOD, ROUTINE, OR CONVENTIONAL

68. Under step 2 of *Alice*, claims 1, 3, 8, 10, 11, 13, 14, 16, 19, and 20 are drawn to inventive concepts and are patentable under § 101.

69. The Background sections of XiDrone's patents and the Sandia and NATO Reports make it clear that there was nothing "well-understood, routine, [and] conventional" about the technology claimed in XiDrone's patents, including the '651 patent. *See* Exhibit "C," Sandia Report.

70. The "ordered combinations" claims 1, 3, 8, 10, 11, 13, 14, 16, 19, and 20 also provide "inventive concepts."

71. As set forth in the '651 Patent, the specific innovations set forth in the '651 Patent have a very significant real-world impact on the ability to detect small drones, assess whether the small drone is a threat, and implement a countermeasure, including a counter drone to aerially intercept an undesirable drone, which the prior art systems lacked. This type of real-world, measurable improvement to the detection, classification, assessment, and countermeasure of

small drones is precisely the type of improvement that the Supreme Court and the Federal Circuit have repeatedly held satisfies Section 101.

72. XiDrone's '976 and '651 patents are collectively referred to herein as the "patents-in-suit."

XIDRONE'S FOREIGN PATENTS

73. XiDrone has also been granted or issued related foreign patents. In Europe (including Belgium, Denmark, France, Germany, Great Britain, Ireland, Italy, The Netherlands, Monaco, Poland, Spain, and Switzerland), XiDrone was granted or issued EP 3234633B1.

FORTEM'S INFRINGING METHODS & DEVICES

74. On information and belief, Fortem has infringed, and continues to infringe, the patents-in-suit by using, offering for sale, and selling a class 1 and class 2 drone detection system, method, device, and/or computer program.

75. For example, Fortem makes, uses, offers for sale, and sells technologies that achieve drone mitigation including a product named "SkyDome Manager" (*see, e.g.*, "SkyDome Manager" (available at <u>https://fortemtech.com/products/skydome-manager/</u>) and "Fortem SkyDome: Airspace Awareness And Security Platform" (available at https://southerncrossdrones.com/download/fortem-skydome-datasheet-sxd-.pdf.). Fortem's "SkyDome Manager" can integrate with another Fortem product called "DroneHunter" (*see, e.g.*, "DroneHunter F700" (available at <u>https://fortemtech.com/products/dronehunter-f700/</u>) and "DroneHunter: The Premier AI-Enabled, Autonomous Drone Interceptor In The World" (available at <u>https://unival-group.com/wp-content/uploads/2020/03/Fortem-DroneHunter-Data-Sheet-006-ENG-unival.pdf</u>). Other exemplary technologies from Fortem that support drone mitigation include Fortem's "TrueView R20 Radar" (*see, e.g.*, "TrueView R20 Radar" (available at <u>https://fortemtech.com/products/trueview-r20/</u>), Fortem's "TrueView R30 Radar" (*see, e.g.*, available at <u>https://fortemtech.com/products/trueview-r30/</u>), and Fortem's "TrueView C30 Camera System" (*see, e.g.*, <u>https://fortemtech.com/products/trueview-c30/</u>).

76. Fortem's technology detects, tracks, and mitigates class 1 and class 2 drones.

77. Fortem's technology includes a radar for detecting the 3D position of an unmanned aerial vehicle in flight. *See, e.g.*, Fortem Technologies, "SkyDome Manager" (available at <u>https://fortemtech.com/products/skydome-manager/</u>); Fortem Technologies, "TrueView R20 Radar" (available at <u>https://fortemtech.com/products/trueview-r20/</u>); and Fortem Technologies, "TrueView R30 Radar" (available at <u>https://fortemtech.com/products/trueview-r20/</u>); and Fortem Technologies, "TrueView R30 Radar" (available at <u>https://fortemtech.com/products/trueview-r20/</u>); and Fortem Technologies, "TrueView R30 Radar" (available at <u>https://fortemtech.com/products/trueview-r20/</u>); and Fortem Technologies, "TrueView R30 Radar" (available at <u>https://fortemtech.com/products/trueview-r20/</u>); and Fortem Technologies, "TrueView R30 Radar" (available at <u>https://fortemtech.com/products/trueview-r20/</u>); and Fortem Technologies, "TrueView R30 Radar" (available at <u>https://fortemtech.com/products/trueview-r20/</u>); and Fortem Technologies, "TrueView R30 Radar" (available at <u>https://fortemtech.com/products/trueview-r30/</u>).

78. Fortem's technology includes a radio frequency receiver for identifying the unmanned aerial vehicle in flight based on at least one radio transmission from the unmanned aerial vehicle. *See, e.g.*, Fortem Technologies, "SkyDome Manager" (available at https://fortemtech.com/products/skydome-manager/).

79. Fortem's technology includes a location processor operatively coupled to the radar and the radio frequency receiver and the location processor determines the location of the unmanned aerial vehicle in flight based on the radar position detection and the RF receiver identification. *See, e.g.*, Fortem Technologies, "DroneHunter F700" (available at https://fortemtech.com/products/dronehunter-f700/); Fortem Technologies, "Airspace Awareness, Safety And Security, 2019" (available at

<u>https://www.youtube.com/watch?v=Mohj2A0kD6Q</u>); and Fortem Technologies, "SkyDome Manager" (available at <u>https://fortemtech.com/products/skydome-manager/</u>).

80. Fortem's technology includes a countermeasure operatively coupled to the location processor and comprising at least one of a radio frequency transmitter and a kinetic effect. Fortem's location processor is structured to selectively (a) control interdiction of the unmanned aerial vehicle in flight using a specific RF jamming frequency transmitted by the radio frequency transmitter, or (b) control deployment of the kinetic effect. *See, e.g.*, Fortem Technologies, "DroneHunter F700" (available at https://fortemtech.com/products/dronehunter-f700/); Fortem Technologies, "Airspace Awareness, Safety And Security, 2019" (available at https://www.youtube.com/watch?v=Mohj2A0kD6Q) and Fortem Technologies, "SkyDome Manager" (available at https://fortemtech.com/products/skydome-manager/).

81. Fortem's technology includes at least one range sensor. *See e.g.*, Fortem's "TrueView R20 Radar" (available at <u>https://fortemtech.com/products/trueview-r20/</u>), "Fortem's TrueView R30 Radar" (available at <u>https://fortemtech.com/products/trueview-r30/</u>), and "Fortem SkyDome: Airspace Awareness And Security Platform" (available at https://southerncrossdrones.com/download/fortem-skydome-datasheet-sxd-.pdf).

82. Fortem's technology includes at least one directional or omnidirectional sensor. *See, e.g.*, Fortem's, "SkyDome Manager" (available at

https://fortemtech.com/products/skydome-manager/.

83. Fortem's technology includes a sensor fusion processor operatively coupled to the at least one range sensor and the at least one directional or omnidirectional sensor. *See, e.g.*, Fortem's "SkyDome Manager" (available at <u>https://fortemtech.com/products/skydome-manager/</u>.

84. Fortem's sensor fusion processor is configured to detect a target and determine direction and range of the target in response to at least one range sensor and at least one directional or omnidirectional sensor. *See, e.g.*, Fortem's "TrueView R20 Radar" (available at https://fortemtech.com/products/trueview-r20/), Fortem's "TrueView R30 Radar" (available at https://fortemtech.com/products/trueview-r20/), and Fortem's "SkyDome Manager" (available at https://fortemtech.com/products/trueview-r20/), and Fortem's "SkyDome Manager" (available at https://fortemtech.com/products/trueview-r20/), and Fortem's "SkyDome Manager" (available at https://fortemtech.com/products/trueview-r20/).

85. Fortem's technology includes a system-operated counter unmanned aerial vehicle dispatchable by the system to intercept the detected target. *See, e.g.*, Fortem's "DroneHunter F700" (available at <u>https://fortemtech.com/products/dronehunter-f700/</u>), Fortem's "Airspace Awareness, Safety And Security" (available at

<u>https://www.youtube.com/watch?v=Mohj2A0kD6Q</u>), and Fortem's "SkyDome Manager" (available at <u>https://fortemtech.com/products/skydome-manager/</u>.

86. Fortem's system-operated counter unmanned aerial vehicle is configured to be guided by an RF control signal to aerially navigate to the proximity of the detected target to intercept the detected target based on autonomous navigation data supplied by the system. *See, e.g.*, Fortem's "DroneHunter: The Premier AI-Enabled, Autonomous Drone Interceptor In The World" (available at <u>https://unival-group.com/wp-content/uploads/2020/03/Fortem-</u>DroneHunter-Data-Sheet-006-ENG-unival.pdf).

87. On information and belief, Fortem has and continues to provide counter class 1 and class 2 drone-related services to "Defense," "Airports," "Energy," "Law Enforcement," "Prisons" and "Public Venues." *See. e.g.*, <u>https://fortemtech.com/solutions</u>.

THE PARTIES PRE-SUIT COMMUNICATIONS

88. XiDrone provided Fortem with written notice of XiDrone's counter-drone patent portfolio on or about June 9, 2021.

89. XiDrone also provided Fortem with written notice of Fortem's past, present, and ongoing infringement of XiDrone's the '976 and '651 Patents on or about April 3, 2023. XiDrone's written notice included claim charts that demonstrate Fortem's infringement of XiDrone's '976 and '651 Patents. As a result, Fortem has had actual notice and knowledge of Fortem's ongoing infringement of XiDrone's '976 and '651 Patents since at least April 3, 2023.

90. Despite Fortem's awareness of XiDrone's patent portfolio in June 2021 and Fortem's past and present infringement of the XiDrone '976 and '651 Patents no later than April 3, 2023, Fortem decided to continue selling its infringing technology without authorization from XiDrone.

91. On information and belief, since receiving XiDrone's notice of infringement
letter, Fortem has not changed (a) its course of conduct, (b) its infringing products or systems,
(c) its infringing methods, or (d) any of its instructions or supporting literature and materials
despite awareness of XiDrone's notice of infringement letter and/or XiDrone's '976 and '651
Patents.

92. On information and belief, Fortem's past, present, and future infringement of XiDrone's '976 and '651 Patents is intentional, deliberate, malicious, willful, and in bad faith.

COUNT I: <u>DIRECT INFRINGEMENT OF XIDRONE'S '976 PATENT</u>

93. XiDrone incorporates by reference the allegations in the preceding paragraphs.

94. Fortem has made, used, sold, offered for sale the infringing products, systems, methods, and computer programs that incorporate one or more of the inventions claimed in

XiDrone's '976 Patent within the United States.

95. Fortem has infringed and continues to infringe at least representative claims 1, 2,

3, and 4 of XiDrone's '976 Patent as detailed in Exhibit "D," including either literally or under

the doctrine of equivalents, in connection with, for example, Fortem's above-described

technology, products, systems, methods, and computer programs including Fortem's "SkyDome

Manager," "DroneHunter," "TrueView R20 Radar," "TrueView R30 Radar," and "TrueView

C30 Camera System."

96. Additional information germane to Fortem's system(s) may be found at:

• Bhargav Patel and Dmitri Rizer, *Counter-Unmanned Aircraft Systems: Technology Guide*, CUAS-T-G-1, National Urban Security Technology Laboratory, United States Department Of Homeland Security, September 2019.

• Arthur Holland Michel, *Counter-Drone Systems*, Second Edition, Center For The Study Of The Drone at Bard College, 2019.

• Dedrone, "VIPs And Private Property" (available at <u>https://www.dedrone.com/solutions/vips-and-private-property</u>).

• Susan Friedberg, "Introducing DroneTracker 4.1, Providing Advanced Radar & PTZ Camera Integration For sUAS Detection & Threat Mitigation," November 5, 2019 (available at https://www.dedrone.com/blog/the-8-most-important-innovations-of-dronetracker-4-1).

• Fortem Technologies, "About Us" (available at <u>https://fortemtech.com/about</u>).

• Fortem Technologies, "DroneHunter F700" (available at <u>https://fortemtech.com/products/dronehunter-f700/</u>).

• Fortem Technologies, "Airspace Awareness, Safety And Security," 2019 (available at <u>https://www.youtube.com/watch?v=Mohj2A0kD6Q</u>).

• Fortem Technologies, "SkyDome Manager" (available at <u>https://fortemtech.com/products/skydome-manager/</u>).

• Warren Brown, "Amid Market Demand, Fortem Technologies Opens Washington D.C. Metro Area Office And Expands Executive Team," December 12, 2022 (available at https://fortemtech.com/press-releases/2022-12-12-amid-market-demand-fortem-technologies-opens-washington-dc-metro-area-office/).

• Fortem Technologies, "TrueView R20 Radar" (available at <u>https://fortemtech.com/products/trueview-r20/</u>).

• Fortem Technologies, "TrueView R30 Radar" (available at <u>https://fortemtech.com/products/trueview-r30/</u>).

• Fortem Technologies, "Fortem SkyDome: Airspace Awareness And Security Platform," 2018 (available at <u>https://southerncrossdrones.com/download/fortem-skydome-datasheet-sxd-.pdf</u>).

• Fortem Technologies, "DroneHunter: The Premier AI-Enabled, Autonomous Drone Interceptor In The World," 2020 (available at <u>https://unival-group.com/wp-content/uploads/2020/03/Fortem-DroneHunter-Data-Sheet-006-ENG-unival.pdf</u>).

• Fortem Technologies, "TrueView C30 Camera System" (available at <u>https://fortemtech.com/products/trueview-c30/</u>).

97. Fortem has directly infringed and continues to directly infringe one or more

claims of the '976 Patent, including at least representative claims 1, 2, 3, and 4 in violation of 35

U.S.C. § 271(a) by, without authority, using, offering for sale, and selling the infringing

products, systems, methods, and computer programs within the United States and importing the

infringing products, systems, methods, and computer programs into the United States.

98. Fortem's infringing activities have and continue to be without authority or license under the '976 Patent.

99. On information and belief, despite notice of the '976 Patent, Fortem has and continues to infringe XiDrone's '976 Patent.

100. On information and belief, as Fortem deliberately avoided confirming Fortem's high probability of wrongdoing, Fortem has and continues to directly infringe at least representative claim 1 of XiDrone's '976 Patent with willful blindness.

101. Fortem's direct infringement of XiDrone's '976 Patent has been, and continues to be, willful, and deliberate conduct. Accordingly, XiDrone seeks damages up to three times on account of Fortem's willful conduct pursuant to 35 U.S.C. § 284 and attorneys' fees on account of Fortem's actions rendering this an exceptional case pursuant to 35 U.S.C. § 285.

102. XiDrone has and continues to suffer damages as a direct and proximate result of Fortem's direct infringement of XiDrone's '976 Patent, and XiDrone will suffer additional and irreparable damages unless the Court preliminarily and permanently enjoins 911 Security from continuing its infringing activities. XiDrone does not have an adequate remedy at law.

103. XiDrone is entitled to recover: (i) damages adequate to compensate XiDrone for Fortem's direct infringement of XiDrone's '976 Patent, which at a minimum, amounts to a reasonable royalty; (ii) treble damages; (iii) attorneys' fees; (iv) costs; and (v) an injunction.

COUNT II: INDIRECT INFRINGEMENT OF XIDRONE'S '976 PATENT

104. XiDrone incorporates by reference the allegations in the preceding paragraphs.

105. Fortem has in the past and continues to indirectly infringe at least representative claims 1, 2, 3, and 4 of XiDrone's '976 Patent in violation of 35 U.S.C. § 271(b) by actively, knowingly, and intentionally inducing direct infringement by other persons, including customers and end users, by encouraging and instructing their customers to use Fortem's "Sky Dome Manager," "DroneHunter," "TrueView R20 Radar," "TrueView R30 Radar," and "TrueView C320 Camera System" in a manner understood and intended to infringe XiDrone's '651 Patent.

For example, as shown above, Fortem instructs its customers to utilize Fortem's "Sky Dome Manager," "DroneHunter," "TrueView R20 Radar," "TrueView R30 Radar," and "TrueView C320 Camera System" in an infringing manner.

106. Fortem also has in the past and continues to indirectly infringe at least claims 1, 2, 3, and 4 of XiDrone's '976 Patent in violation of 35 U.S.C. § 271(c) by actively, knowingly, and intentionally contributing to an underlying direct infringement by other persons, such as Fortem's patrons, customers, and end users, by offering and providing Fortem's above-described technology for the detection, tracking, risk assessment, and mitigation of class 1 and class 2 drones without authority or license from XiDrone and in a manner understood and intended to infringe XiDrone's '976 Patent. For example, Fortem knows that Fortem's "Sky Dome Manager," "DroneHunter," "TrueView R20 Radar," and "TrueView C320 Camera System" each constitute (i) a component and material part of the inventions claimed in one or more claims of the '976 Patent, (ii) knowingly and especially designed for use in infringing one or more claims of the '976 Patent, (iii) intended to be used to infringe one or more claims of the '976 Patent, (iii) needed to be used to infringe one or more claims of the '976 Patent, (iii) needed to be used to infringe one or more claims of the '976 Patent, (iii) needed to be used to infringe one or more claims of the '976 Patent, (iii) needed to be used to infringe one or more claims of the '976 Patent, (iii) needed to be used to infringe one or more claims of the '976 Patent, (iii) needed to be used to infringe one or more claims of the '976 Patent, (iii) needed to be used to infringe one or more claims of the '976 Patent, (iii) needed to be used to infringe one or more claims of the '976 Patent, (iii) needed to be used to infringe one or more claims of the '976 Patent, (iii) needed to be used to infringe one or more claims of the '976 Patent, (iii) needed to be used to infringe one or more claims of the '976 Patent, (iii) needed to be used to infringe one or more claims of the '976 Patent, (iii) needed to be used to infringe one or more claims of the '976 Patent, (iii) needed to be used to infringe one or more clai

107. On information and belief, as Fortem deliberately avoided confirming its high probability of wrongdoing, Fortem has induced and contributed to, and continues to induce and contribute to, the direct infringement of at least representative claims 1, 2, 3, and 4 of XiDrone's '976 Patent with willful blindness.

108. Fortem's indirect infringement of XiDrone's '976 Patent has been, and continues to be, willful and deliberate. Accordingly, XiDrone seeks damages up to three times on account

of Fortem's willful conduct pursuant to 35 U.S.C. § 284 and attorneys' fees on account of Fortem's actions rendering this an exceptional case pursuant to 35 U.S.C. § 285.

109. XiDrone has and continues to suffer damages as a direct and proximate result of Fortem's indirect infringement of XiDrone's '976 Patent and will suffer additional and irreparable damages unless the Court preliminarily and permanently enjoins Fortem from continuing its infringement. XiDrone does not have an adequate remedy at law.

110. XiDrone is entitled to recover: (i) damages adequate to compensate XiDrone for Fortem's indirect infringement of XiDrone's '976 Patent, which, at a minimum, amounts to a reasonable royalty; (ii) treble damages; (iii) attorneys' fees; (iv) costs; and (v) an injunction.

COUNT III: DIRECT INFRINGEMENT OF XIDRONE'S '651 PATENT

111. XiDrone incorporates by reference the allegations of the preceding paragraphs.

112. Fortem has made, used, offered for sale, and sold the infringing products, systems, methods, and computer programs that incorporate one or more of the inventions claimed in XiDrone's '651 Patent within the United States.

113. Fortem has infringed and continues to infringe at least representative claims 1, 3, 8, 10, 11, 13, 14, 16, 19, and 20 of XiDrone's '651 Patent as detailed in Exhibit "E," including either literally or under the doctrine of equivalents, in connection with, for example, Fortem's above-described technology, products, systems, methods, and computer programs, including Fortem's SkyDome Manager, DroneHunter, TrueView R20 Radar, TrueView R30 Radar, and TrueView C30 Camera System.

114. Additional information germane to Fortem's technology may be found at:

• Bhargav Patel and Dmitri Rizer, *Counter-Unmanned Aircraft Systems: Technology Guide*, CUAS-T-G-1, National Urban Security Technology Laboratory, United States Department Of Homeland Security, September 2019.

• Arthur Holland Michel, *Counter-Drone Systems*, Second Edition, Center For The Study Of The Drone at Bard College, 2019.

• Dedrone, "VIPs And Private Property" (available at <u>https://www.dedrone.com/solutions/vips-and-private-property</u>).

• Susan Friedberg, "Introducing DroneTracker 4.1, Providing Advanced Radar & PTZ Camera Integration For sUAS Detection & Threat Mitigation," November 5, 2019 (available at https://www.dedrone.com/blog/the-8-most-important-innovations-of-dronetracker-4-1).

• Fortem Technologies, "About Us" (available at <u>https://fortemtech.com/about</u>).

• Fortem Technologies, "DroneHunter F700" (available at <u>https://fortemtech.com/products/dronehunter-f700/</u>).

• Fortem Technologies, "Airspace Awareness, Safety And Security," 2019 (available at <u>https://www.youtube.com/watch?v=Mohj2A0kD6Q</u>).

• Fortem Technologies, "SkyDome Manager" (available at <u>https://fortemtech.com/products/skydome-manager/</u>).

• Warren Brown, "Amid Market Demand, Fortem Technologies Opens Washington D.C. Metro Area Office And Expands Executive Team," December 12, 2022 (available at https://fortemtech.com/press-releases/2022-12-12-amid-market-demand-fortem-technologies-opens-washington-dc-metro-area-office/).

• Fortem Technologies, "TrueView R20 Radar" (available at <u>https://fortemtech.com/products/trueview-r20/</u>).

• Fortem Technologies, "TrueView R30 Radar" (available at <u>https://fortemtech.com/products/trueview-r30/</u>).

• Fortem Technologies, "Fortem SkyDome: Airspace Awareness And Security Platform," 2018 (available at <u>https://southerncrossdrones.com/download/fortem-skydome-datasheet-sxd-.pdf</u>).

• Fortem Technologies, "DroneHunter: The Premier AI-Enabled, Autonomous Drone Interceptor In The World," 2020 (available at <u>https://unival-group.com/wp-content/uploads/2020/03/Fortem-DroneHunter-Data-Sheet-006-ENG-unival.pdf</u>).

• Fortem Technologies, "TrueView C30 Camera System" (available at <u>https://fortemtech.com/products/trueview-c30/</u>).

115. Fortem has directly infringed and continues to directly infringe one or more claims of XiDrone's '651 Patent, including at least representative claims 1, 3, 8, 10, 11, 13, 14, 16, 19, and 20, in violation of 35 U.S.C. § 271(a) by, without authority, using, offering for sale, and selling the infringing products, systems, methods, and computer programs within the United States and importing the infringing products, systems, methods, and computer programs into the United States.

116. Fortem's infringing activities have and continue to be without authority or license under XiDrone's '651 Patent.

117. Despite actual notice of XiDrone's '651 Patent, Fortem has and continues to infringe XiDrone's '651 Patent.

118. On information and belief, as Fortem deliberately avoided confirming Fortem's high probability of wrongdoing, Fortem has and continues to directly infringe at least representative claims 1, 3, 8, 10, 11, 13, 14, 16, 19, and 20 of XiDrone's '651 with willful blindness.

119. Fortem's direct infringement of XiDrone's '651 Patent has been, and continues to be, willful, and deliberate conduct. Accordingly, XiDrone seeks damages up to three times on account of Fortem's willful conduct pursuant to 35 U.S.C. § 284 and attorneys' fees on account of Fortem's actions rendering this an exceptional case pursuant to 35 U.S.C. § 285.

120. XiDrone has and continues to suffer damages as a direct and proximate result of Fortem's direct infringement of XiDrone's '651 Patent, and XiDrone will suffer additional and

irreparable damages unless the Court preliminarily and permanently enjoins Fortem from continuing its infringing activities. XiDrone does not have an adequate remedy at law.

121. XiDrone is entitled to recover: (i) damages adequate to compensate XiDrone for Fortem's direct infringement of XiDrone's '651 Patent, which at a minimum, amounts to a reasonable royalty; (ii) treble damages; (iii) attorneys' fees; (iv) costs; and (v) an injunction.

COUNT IV: INDIRECT INFRINGEMENT OF XIDRONE'S '651 PATENT

122. XiDrone incorporates by reference the allegations in the preceding paragraphs.

123. Fortem has in the past and continues to indirectly infringe at least representative claims 1, 3, 8, 10, 11, 13, 14, 16, 19, and 20 of XiDrone's '651 Patent in violation of 35 U.S.C. § 271(b) by actively, knowingly, and intentionally inducing direct infringement by other persons, including customers and end users, by encouraging and instructing their customers to use Fortem's above-described technology and systems, including but not limited to Fortem's "Sky Dome Manager," "DroneHunter," "TrueView R20 Radar," "TrueView R30 Radar," and "TrueView C320 Camera System" in a manner understood and intended to infringe XiDrone's '651 Patent. For example, as shown above, Fortem instructs its customers to utilize Fortem's "Sky Dome Manager," "DroneHunter," "TrueView R20 Radar," "TrueView R30 Radar," and "TrueView C320 Camera System" in a manner understood and intended to infringe XiDrone's '651 Patent. For example, as shown above, Fortem instructs its customers to utilize Fortem's "Sky Dome Manager," "DroneHunter," "TrueView R20 Radar," "TrueView R30 Radar," and "TrueView C320 Camera System" in a manner understood and intended to infringe XiDrone's '651 Patent. For example, as shown above, Fortem instructs its customers to utilize Fortem's "Sky Dome Manager," "DroneHunter," "TrueView R20 Radar," "TrueView R30 Radar," and "TrueView C320 Camera System" in an infringing manner.

124. Fortem also has in the past and continues to indirectly infringe at least representative claims 1, 3, 8, 10, 11, 13, 14, 16, 19, and 20 of XiDrone's '651 Patent in violation of 35 U.S.C. § 271(c) by actively, knowingly, and intentionally contributing to an underlying direct infringement by other persons, such as Fortem's patrons, customers, and end users, by offering and providing Fortem's above-described technology for the detection, tracking, risk

assessment, and mitigation of class 1 and class 2 drones without authority or license from XiDrone and in a manner understood and intended to infringe XiDrone's '651 Patent. For example, Fortem knows that Fortem's "Sky Dome Manager," "DroneHunter," "TrueView R20 Radar," "TrueView R30 Radar," and "TrueView C320 Camera System" each constitute (i) a component and material part of the inventions claimed in one or more claims of the '651 Patent, (ii) knowingly and especially designed for use in infringing one or more claims of the '651 Patent, (iii) intended to be used to infringe one or more claims of the '651 Patent, and (iv) not a staple item of commerce suitable for substantial non-infringing use.

125. On information and belief, as Fortem Security deliberately avoided confirming its high probability of wrongdoing, Fortem has induced and contributed to, and continues to induce and contribute to, the direct infringement of at least representative claims 1, 3, 8, 10, 11, 13, 14, 16, 19, and 20 of XiDrone's '651 Patent with willful blindness.

126. Fortem's indirect infringement of XiDrone's '651 Patent has been, and continues to be, willful and deliberate. Accordingly, XiDrone seeks damages up to three times on account of Fortem's willful conduct pursuant to 35 U.S.C. § 284 and attorneys' fees on account of Fortem's actions rendering this an exceptional case pursuant to 35 U.S.C. § 285.

127. XiDrone has and continues to suffer damages as a direct and proximate result of Fortem's indirect infringement of XiDrone's '651 Patent and will suffer additional and irreparable damages unless the Court preliminarily and permanently enjoins Fortem from continuing its infringement. XiDrone does not have an adequate remedy at law.

128. XiDrone is entitled to recover: (i) damages adequate to compensate XiDrone for

Fortem's indirect infringement of XiDrone's '651 Patent, which, at a minimum, amounts to a

reasonable royalty; (ii) treble damages; (iii) attorneys' fees; (iv) costs; and (v) an injunction.

JURY DEMAND

129. Pursuant to Federal Rule of Civil Procedure 38(b), XiDrone demands a trial by jury of all issues so triable.

REQUEST FOR RELIEF

For the foregoing reasons, Plaintiff XiDrone Systems, Inc. seeks the following relief:

- a. Declaring that Fortem has infringed the patents-in-suit;
- b. That Fortem be enjoined from further infringement of the patents-in-suit pursuant to 35 U.S.C. § 283;
- c. That Fortem be ordered to pay damages adequate to compensate XiDrone for Fortem's infringement of the patents-in-suit pursuant to 35 U.S.C. § 284;
- d. That Fortem be ordered to pay XiDrone treble damages pursuant to 35 U.S.C. § 284;
- e. That Fortem be ordered to pay prejudgment interest pursuant to 35 U.S.C. § 284;
- f. That Fortem be ordered to pay all costs associated with this action pursuant to 35 U.S.C. § 284;
- g. That Fortem be ordered to pay XiDrone's attorneys' fees pursuant to 35 U.S.C. § 285;
- h. That XiDrone be granted such other and additional relief as the Court deems just and proper.

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DATED: July 6, 2023.

/s/ Nicole A. Skolout TOMCHAK SKOLOUT Nicole A. Skolout

KENT & RISLEY LLC Stephen R. Risley

Attorneys for Plaintiff XiDrone Systems, Inc.