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

Stratasys, Inc.,	§	
	§	
Plaintiff,	§	CIVIL ACTION NO. 2:24-cv-00645
v.	§	
Shenzhen Tuozhu Technology Co., Ltd.,	§	JURY TRIAL DEMANDED
Shanghai Lunkuo Technology Co., Ltd.,	§	
Bambulab Limited,	§	
Beijing Tiertime Technology Co., Ltd.	§	
Beijing Yinhua Laser Rapid Prototyping and	§	
Mould Technology Co. Ltd., and	§	
Tuozhu Technology Limited	§	
	§	
	§	
Defendants.	§	

COMPLAINT FOR PATENT INFRINGEMENT

Plaintiff Stratasys, Inc. ("Plaintiff" or "Stratasys"), by and through its undersigned counsel, brings this complaint for patent infringement against Defendants Shenzhen Tuozhu Technology Co., Ltd., Shanghai Lunkuo Technology Co., Ltd., Bambulab Limited, Beijing Tiertime Technology Co., Ltd., Beijing Yinhua Laser Rapid Prototyping and Mould Technology Co. Ltd., and Tuozhu Technology Limited (collectively, "Bambu Lab" or "Defendants") and would respectfully show the Court as follows:

I. PARTIES

- 1. Stratasys is one of the pioneers in the field of three-dimensional (3D) printing technology, founded in 1988. Plaintiff Stratasys, Inc. is a Delaware corporation with its place of business located at 7665 Commerce Way, Eden Prairie, Minnesota.
- 2. On information and belief, Defendant Shenzhen Tuozhu Technology Co., Ltd. (深 圳拓竹科技有限公司, hereafter, "Shenzhen Tuozhu") is a company organized and existing under

the laws of the People's Republic of China. On information and belief, Shenzhen Tuozhu operates under the brand name "Bambu Lab" and holds itself forth under the English name Shenzhen Bambu Lab Co., Ltd. That name does not appear seprately in China's National Enterprise Credit Information Publicity System.

- 3. On information and belief, Defendant Shanghai Lunkuo Technology Co., Ltd. (上海轮廓科技有限公司, hereafter, "Shanghai Lunkuo") is a company organized and existing under the laws of the People's Republic of China. On information and belief, Shanghai Lunkuo conducts business, either directly or through its agents, on an ongoing basis in this judicial district and elsewhere in the United States. On information and belief, Shanghai Lunkuo holds itself forth under the English name Shanghai Contour Technology Co., Ltd. That name does not appear separately in China's National Enterprise Credit Information Publicity System, as Lunkuo is a phonetic spelling of the Chinese word that translates to Contour.
- 4. On information and belief, Defendant Bambulab Limited is a company organized and existing under the laws of Hong Kong SAR, China, and is a wholly-owned subsidiary of Shenzhen Tuozhu Technology Co., Ltd.
- 5. On information and belief, Defendant Beijing Tiertime Technology Co., Ltd. (北京太尔时代科技有限公司), is a company organized and existing under the laws of the People's Republic of China.
- 6. On information and belief, Defendant Beijing Yinhua Laser Rapid Prototyping and Mould Technology Co. Ltd. (北京殷华激光快速成形与模具技术有限公司), is a company organized and existing under the laws of the People's Republic of China.

7. On information and belief, Defendant Tuozhu Technology Limited, is a company organized and existing under the laws of Hong Kong SAR, China, and is a wholly-owned subsidiary of Shenzhen Tuozhu Technology Co., Ltd.

II. JURISDICTION AND VENUE

- 8. This is a civil action for patent infringement arising under the patent laws of the United States, 35 U.S.C. §§ 1 et seq. Accordingly, this Court has subject matter jurisdiction over this action pursuant to 28 U.S.C. §§ 1331 and 1338(a).
- 9. This Court has personal jurisdiction over Defendants at least because they (1) have committed acts of patent infringement and contributed to and induced acts of patent infringement by others in this District; (2) regularly did business or solicited business in this District; (3) engaged in other persistent courses of conduct and derived substantial revenue by its offering of infringing products and services and providing infringing products and services in this District; and (4) purposefully established substantial, systematic, and continuous contacts with this District and should have reasonably expected to be subject to suit here by its offering of infringing products and services and providing infringing products and services in this District.
- 10. Defendants conduct business, either directly or through its agents, on an ongoing basis in this judicial district and elsewhere in the United States. On information and belief, Defendants are responsible for the research, development, and manufacturing of Bambu-branded products imported, sold, offered for sale, and/or used in the United States, including Bambu's three-dimensional (3D) printing products in this District.
- 11. Defendants have sold their 3D printers and 3D-printer related products within this judicial district via their online store at https://store.bambulab.com/products.

- 12. Defendants, directly and through subsidiaries or intermediaries (including distributors, retailers, and others), have purposefully and voluntarily placed their infringing products into this district and into the stream of commerce with the intention and expectation that the infringing products will be purchased for use in this district. Defendants have imported, offered for sale and sold, and continue to import, offer for sale and sell, infringing products for delivery and use in this district.
- 13. Venue is proper in this district under at least 28 U.S.C. §§ 1391(b), (c) and/or 1400(b). Venue in this district is proper for Defendants at least because they are foreign entities that have committed acts of infringement in this district as detailed throughout this complaint.

III. BACKGROUND OF THE DISPUTE

- 14. Stratasys was founded in 1988 and is a pioneer in the field of three-dimensional printing. Stratasys was the original innovator in the field of fused deposition modeling (also known as material extrusion 3D printing), which is an additive manufacturing process that prints three-dimensional objects from computer models by building up layers of one or more extruded materials onto a platform using a device that has come to be generally known as a 3D printer. Stratasys has commercialized this technology (which it refers to as its "FDM" technology), and continues to do so today, selling Stratasys FDM® printers and filament, along with an ecosystem of software, accessories and services.
- 15. Stratasys is an indirectly wholly-owned subsidiary of Stratasys Ltd. Stratasys Ltd. is a publicly owned company organized under the laws of Israel, that is publicly traded in the United States on the NASDAQ (ticker symbol: SSYS).
- 16. Stratasys's printers are backed by its proprietary technologies. Stratasys hold approximately 2,600 patents and pending patents internationally, and its 3D printing systems

utilize its patented extrusion-based FDM®, inkjet-based PolyJetTM, powder-bed-based SAF®, photopolymer-based P3TM, and stereolithography technologies to enable the production of prototypes, tools used for production, and manufactured goods directly from 3D CAD files or other 3D content.

- 17. In 2012, Stratasys, Inc. merged with Objet Ltd. to form the corporate entity Stratasys Ltd. Today, Stratasys Ltd. and its subsidiaries, including Stratasys, Inc., have more than 1,900 employees worldwide, hold approximately 2,600 granted or pending patents globally, and have received numerous awards for technology and leadership.
- 18. Over the years, other companies began to make and sell 3D printers that incorporate features and capabilities involving the extrusion of materials in additive layers to form 3D objects. For example, by 2022, Defendants began making and selling its "Bambu Lab" branded printers. On information and belief, the Bambu Lab printers are sold in the United States through direct sales over the Internet and through resellers.
- 19. On information and belief, Defendants have sold their printers, including their Bambu Lab A1 3D printer, A1 mini 3D printer, P1P 3D printer, X1-Carbon 3D printer, P1S 3D printer and X1E 3D printer. Defendants also make available and distribute marketing, instructional, and support materials to customers through their website, and maintains a technical support staff that provides support to customers, including through their website.
- 20. On information and belief, Defendants' printers (including their Bambu Lab A1 3D printer, A1 mini 3D printer, P1P 3D printer, X1-Carbon ("X1C") 3D printer, P1S 3D printer and X1E 3D printer) transmit data to Defendants' servers or servers operated by third parties under Defendants' control. This includes, but is not limited to, Defendants' servers that may be located in China.

21. In fact, Defendants have acknowledged that their printers have security concerns. In a November 2022 blog post, Defendants' representative stated that: "We admit that the security design of the whole Bambu Lab system was not the best from the very beginning. The honest reason is simply that the initial team has a background in robotics, but very little experience in network security. We now understand, thanks to the community contributions, that we have underestimated this issue, and there is no excuse for this." https://blog.bambulab.com/answering-network-security-concerns/.

IV. CAUSES OF ACTION

COUNT 1: U.S. Patent No. 10,569,466

- 22. Stratasys repeats and re-alleges each of the allegations in the foregoing paragraphs as if fully set forth herein.
- 23. Stratasys repeats and re-alleges each of the allegations in the foregoing paragraphs as if fully set forth herein.
- 24. On February 25, 2020, the United States Patent Office (USPTO) duly and lawfully issued United States Patent No. 10,569,466, entitled "Tagged Build Material For Three-Dimensional Printing." By assignment, duly recorded with the USPTO, Stratasys owns all substantial rights to the '466 Patent, including the right to sue and recover damages for all infringement.
- 25. The '466 Patent generally relates to data tags included on spools or cartridges of build material that is used by a three-dimensional printer during fabrication of a three-dimensional object.
- 26. Bambu Lab has directly infringed, and continues to directly infringe the '466 Patent in violation of 35 U.S.C. 271(a) by using in the United States, without authorization, the accused

products that practice various claims of the '466 Patent literally or under the doctrine of equivalents. Those products include, for example, Bambu's X1C, X1E, and P1S, P1P, A1 and A1 mini printers.

- 27. As a non-limiting example, the Accused '466 Products meet every element of at least Claim 1 of the '466 Patent literally or under the doctrine of equivalents. Claim 1 recites:
 - 1. A method, comprising:

providing a three-dimensional printer that includes a tag sensor;

receiving a request from a client over a network to fabricate an object on the three-dimensional printer, the three-dimensional printer coupled to a supply of a build material including a tag that stores at least one property of the build material;

reading data from the tag with the tag sensor;

providing the data from the tag to the client over the network, the data including at least one property of the build material;

receiving one or more operational parameters from the client selected for use in controlling operation of the three-dimensional printer when fabricating the object with the build material having the at least one property stored in the tag; and

fabricating the object with the build material according to the one or more operational parameters.

28. For example, Bambu Lab makes, uses, sells and offers to sell various 3D printers, including the X1C, X1E, P1S, P1P, A1, and A1 mini, which are used for printing three-dimensional parts. Bambu Lab's 3D printers print layers of a 3D part using an Automatic Material System (AMS), which includes RFID tag readers that read RFID data from an RFID tag on each of the filament spools (i.e., build material) in the AMS. The RFID tag on each spool includes data related to various properties of the filaments including, for example, the material type and color of the filaments. Furthermore, a request to fabricate an object from a three-dimensional model on the Bambu 3D printers is received at least via the Bambu Studio and/or Handy apps distributed by

Bambu Labs. The data from the RFID tag is provided to the Bambu Studio and/or Handy apps, which are coupled to the 3D printers via a network connection. A build is initiated on the 3D printer using Bambu Studio and/or Handy based on the data received from the data tag (e.g., based on the type and color of build materials to use in the build), and the app sends fabrication instructions to the printer to fabricate the object based on the type and color of build materials. The Bambu Lab printers then fabricate the object according to the instructions received from Bambu Studio and/or Handy. Bambu Lab thus directly infringed and continues to directly infringe each limitation of at least Claim 1 of the '466 Patent by using in the United States, without authorization the Accused '466 Products.

- 29. To the extent Defendants do not perform each and every limitation of the claims of the '466 Patent, Defendants jointly infringe those claims. In particular, Bambu Lab directs or controls its users of the Accused '466 Products to perform one or more limitations of the claims nationwide through its own websites, applications, and manuals, and expects and intends that the Accused '466 Products will be so used. For example, Defendants require customers and users to use the accused products through the applications Defendants produce and distribute for use. Defendants further require users of the accused products to agree to extensive terms and conditions. Finally, Defendants' customers realize a tangible benefit by using Defendants' technology to print and manufacture tangible items.
- 30. Defendants also indirectly infringe at least Claim 1 of the '466 Patent in violation of 35 U.S.C. 271(b) by taking active steps to encourage and facilitate direct infringement by third parties, including users, partners, affiliates, subsidiaries, resellers, distributors and service providers, in the United States with knowledge and specific intent that its efforts would result in the direct infringement of the '466 Patent. For example, Defendants actively induce infringement

of the '466 Patent by designing, manufacturing, selling, or distributing the Accused '466 Products and then training its customers and users on the use of those products and the accompanying applications, including through the creation and dissemination of supporting materials, maintenance guides, troubleshooting guides, software (including Bambu Studio and Bambu Handy), instructions, product manuals, technical information. and See https://wiki.bambulab.com/en/home. As another example, Defendants actively induce infringement of the '466 Patent by instructing, encouraging, or requiring their subsidiaries and affiliates in the United States to use, sell, offer for sale in the United States, and importing into the United States, without authorization, the accused products that practice various claims of the '466 Patent, such as any Bambu Lab printer that is used in combination with the corresponding applications or controllers (e.g., the Bambu Studio and Bambu Handy, etc.). As yet another example, Defendants actively induce infringement of the '466 Patent through the creation and dissemination of promotional and marketing materials and instructional videos. See https://www.youtube.com/c/BambuLab. Defendants' active inducement is done with the knowledge and the specific intent that its efforts would result in the direct infringement of the '466 Patent.

- 31. Defendants were put on notice of their direct and indirect infringement of the '466 Patent at least as early as August 5, 2024 through a notice letter sent to Defendants. Defendants have knowledge of the '466 Patent and knowledge of how Defendants induce third parties to infringe that patent at least as early as August 5, 2024.
- 32. Defendants are also liable for contributory infringement of the '466 Patent under 35 U.S.C. 271(c) by selling or offering for sale the Accused '466 Products and/or other components (e.g., filament, automatic material system, build plates, etc.) in the United States and importing the

Accused '466 Products and/or other components (e.g., filament, automatic material system, build plates, etc.) in the United States with knowledge that they are especially designed or adapted to operate in a manner that infringes the '466 Patent and are not a staple article or commodity of commerce suitable for substantially non-infringing use. Defendants contribute to infringement of the '466 Patent by, *inter alia*, promotion, and/or sales of the infringing Accused '466 Products and/or other components (e.g., filament, automatic material system, build plates, etc.) to third parties.

- 33. Defendants also have had knowledge of how Defendants infringe the '466 Patent at least as early as August 5, 2024 through a notice letter sent to Defendants. Defendants have knowledge of the '466 Patent and knowledge of how Defendants contribute to third parties' infringement of that patent at least as early as August 5, 2024.
- 34. Defendants' infringement of the '466 Patent has been and continues to be willful. At least as early as August 5, 2024, Defendants were notified of their infringing acts and deliberately continued to infringe the '466 Patent despite knowing of the existence of the patent and how Defendants infringe. Further, Defendants have deliberately continued to encourage others' infringement of the '466 Patent, including by continuing to disseminate its marketing and technical materials to customers.
- 35. Defendants' acts of infringement have injured and damaged Stratasys and will continue to injure and damage Stratasys. Stratasys is therefore entitled to recover from Defendants the damages it has sustained as a result of Defendants' wrongful and continued acts in an amount to be proven at trial.
- 36. Defendants' infringement has damaged and will continue to damage Stratasys irreparably, and Stratasys has no adequate remedy at law for its injuries. In addition to actual

damages, Stratasys is entitled to a permanent injunction enjoining Defendants from infringing the '466 Patent.

37. Stratasys is entitled to all damages to which it otherwise is entitled because it has complied with 35 U.S.C. 287 by marking its patent-practicing products with the number of the '466 Patent.

COUNT 2: U.S. Patent No. 11,167,464

- 38. Stratasys repeats and re-alleges each of the allegations in the foregoing paragraphs as if fully set forth herein.
- 39. Stratasys repeats and re-alleges each of the allegations in the foregoing paragraphs as if fully set forth herein.
- 40. On November 9, 2021, the United States Patent Office (USPTO) duly and lawfully issued United States Patent No. 11,167,464, entitled "Tagged Build Material For Three-Dimensional Printing." By assignment, duly recorded with the USPTO, Stratasys owns all substantial rights to the '464 Patent, including the right to sue and recover damages for all infringement.
- 41. The '464 Patent generally relates to data tags included on spools or cartridges of build material that is used by a three-dimensional printer during fabrication of a three-dimensional object.
- 42. Bambu Lab has directly infringed, and continues to directly infringe the '464 Patent in violation of 35 U.S.C. 271(a) by using, selling, offering for sale in the United States, and importing into the United States, without authorization, the accused products that practice various

claims of the '464 Patent literally or under the doctrine of equivalents. Those products include, for example, Bambu's X1C, X1E, and P1S, P1P, A1 and A1 mini printers.

- 43. As a non-limiting example, the Accused '464 Products meet every element of at least Claim 12 of the '464 Patent literally or under the doctrine of equivalents. Claim 12 recites:
 - 12. A system, comprising:
 - a three-dimensional printer;
 - a coupling adapted to receive a supply of a build material;

a tag sensor communicatively associated with the threedimensional printer, the tag sensor configured to read data from a data tag associated with the supply of the build material, the data including at least one property of the build material;

a processor configured to determine an operational parameter of a fabrication process using the three-dimensional printer based upon the data and to perform a diagnostic test to determine whether the operational parameter is suitable for the three-dimensional printer, the operational parameter including at least one of a build platform temperature, a build volume temperature, an infill requirement, a rafting requirement, a support structure requirement, and a cooling requirement; and

a controller for the three-dimensional printer, the controller configured to, when the operational parameter is suitable for the three-dimensional printer according to the diagnostic test, control operation of the three-dimensional printer during the fabrication process according to the operational parameter to fabricate an object with the three-dimensional printer.

44. For example, For example, Bambu Lab makes, uses, sells and offers to sell various 3D printers, including the X1C, X1E, P1S, P1P, A1, and A1 mini, which are used for printing three-dimensional parts. Bambu Lab's 3D printers print layers of a 3D part using an Automatic Material System (AMS), which includes RFID tag readers that read RFID data from an RFID tag on each of the filament spools (i.e., build material) in the AMS. The RFID tag on each spool includes data related to various properties of the filaments including, for example, the material

type of the filaments. The filaments may include a build material filament and a support structure filament. Furthermore, a request to fabricate an object from a three-dimensional model on the Bambu 3D printers is received at least via the Bambu Studio and/or Handy apps distributed by Bambu Labs. The data from the RFID tag is provided to the Bambu Studio and/or Handy apps, which are coupled to the 3D printers via a network connection. A build is initiated on the 3D printer using Bambu Studio and/or Handy based on the data received from the data tag (e.g., based on the type of build material and support structure material to use in the build), and the app sends fabrication instructions to the printer to fabricate the object based on the type of build and support structure materials. The Bambu Lab printers also perform a diagnostic test to determine whether an operational parameter, such as a support structure requirement for the build, is suitable for the three-dimensional printer (e.g., the support structure filament actually in the printer). For example, the printer determines if the support structure filament in the printer is compatible with the build material filament in the printer. The Bambu Lab printers then fabricate the object according to the instructions received from Bambu Studio and/or Handy. Bambu Lab thus directly infringed and continues to directly infringe each limitation of at least Claim 12 of the '464 Patent by using, selling, offering for sale in the United States, and importing into the United States, without authorization the Accused '464 Products.

45. To the extent Defendants do not perform each and every limitation of the claims of the '464 Patent, Defendants jointly infringe those claims. In particular, Bambu Lab directs or controls its users of the Accused '464 Products to perform one or more limitations of the claims nationwide through its own websites, applications, and manuals, and expects and intends that the Accused '464 Products will be so used. For example, Defendants require customers and users to use the accused products through the applications Defendants produce and distribute for use.

Defendants further require users of the accused products to agree to extensive terms and conditions. Finally, Defendants' customers realize a tangible benefit by using Defendants' technology to print and manufacture tangible items.

46. Defendants also indirectly infringe at least Claim 12 of the '464 Patent in violation of 35 U.S.C. 271(b) by taking active steps to encourage and facilitate direct infringement by third parties, including users, partners, affiliates, subsidiaries, resellers, distributors and service providers, in the United States with knowledge and specific intent that its efforts would result in the direct infringement of the '464 Patent. For example, Defendants actively induce infringement of the '464 Patent by designing, manufacturing, selling, or distributing the Accused '464 Products and then training its customers and users on the use of those products and the accompanying applications, including through the creation and dissemination of supporting materials, maintenance guides, troubleshooting guides, software (including Bambu Studio and Bambu instructions, technical information. Handy), product manuals, and See https://wiki.bambulab.com/en/home. As another example, Defendants actively induces infringement of the '464 Patent by instructing, encouraging, or requiring their subsidiaries and affiliates in the United States to use, sell, offer for sale in the United States, and importing into the United States, without authorization, the accused products that practice various claims of the '464 Patent, such as any Bambu Lab printer that is used in combination with the corresponding applications or controllers (e.g., the Bambu Studio and Bambu Handy, etc.). As yet another example, Defendants actively induce infringement of the '464 Patent through the creation and dissemination of promotional and marketing materials and instructional videos. See https://www.youtube.com/c/BambuLab. Defendants' active inducement is done with the knowledge and the specific intent that its efforts would result in the direct infringement of the '464 Patent.

- 47. Defendants were put on notice of their direct and indirect infringement of the '464 Patent at least as early as August 5, 2024 through a notice letter sent to Defendants. Defendants have knowledge of the '464 Patent and knowledge of how Defendants induce third parties to infringe that patent at least as early as August 5, 2024.
- 48. Defendants are also liable for contributory infringement of the '464 Patent under 35 U.S.C. 271(c) by selling or offering for sale the Accused '464 Products and/or other components (e.g., filament, automatic material system, build plates, etc.) in the United States and importing the Accused '464 Products and/or other components (e.g., filament, automatic material system, build plates, etc.) in the United States with knowledge that they are especially designed or adapted to operate in a manner that infringes the '464 Patent and are not a staple article or commodity of commerce suitable for substantially non-infringing use. Defendants contribute to infringement of the '464 Patent by, *inter alia*, promotion, and/or sales of the infringing Accused '464 Products and/or other components (e.g., filament, automatic material system, build plates, etc.) to third parties.
- 49. Defendants also have had knowledge of how Defendants infringe the '464 Patent at least as early as August 5, 2024 through a notice letter sent to Defendants. Defendants have knowledge of the '464 Patent and knowledge of how Defendants contribute to third parties' infringement of that patent at least as early as August 5, 2024.
- 50. Defendants' infringement of the '464 Patent has been and continues to be willful. At least as early as August 5, 2024, Defendants were notified of their infringing acts and deliberately continued to infringe the '464 Patent despite knowing of the existence of the patent

and how Defendants infringe. Further, Defendants have deliberately continued to encourage others' infringement of the '464 Patent, including by continuing to disseminate its marketing and technical materials to customers.

- 51. Defendants' acts of infringement have injured and damaged Stratasys and will continue to injure and damage Stratasys. Stratasys is therefore entitled to recover from Defendants the damages it has sustained as a result of Defendants' wrongful and continued acts in an amount to be proven at trial.
- 52. Defendants' infringement has damaged and will continue to damage Stratasys irreparably, and Stratasys has no adequate remedy at law for its injuries. In addition to actual damages, Stratasys is entitled to a permanent injunction enjoining Defendants from infringing the '464 Patent.
- 53. Stratasys is entitled to all damages to which it otherwise is entitled because it has complied with 35 U.S.C. 287 by marking its patent-practicing products with the number of the '464 Patent.

COUNT 3: U.S. Patent No. 8,747,097

- 54. Stratasys repeats and re-alleges each of the allegations in the foregoing paragraphs as if fully set forth herein.
- 55. Stratasys repeats and re-alleges each of the allegations in the foregoing paragraphs as if fully set forth herein.
- 56. On June 10, 2014, the United States Patent Office (USPTO) duly and lawfully issued United States Patent No. 8,747,097, entitled "Networked Three-Dimensional Printer With Three-Dimensional Scanner." By assignment, duly recorded with the USPTO, Stratasys owns all

substantial rights to the '097 Patent, including the right to sue and recover damages for all infringement.

- 57. The '097 Patent generally relates to providing networking capabilities to threedimensional printers so that the fabrication resources are improved.
- 58. Bambu Lab has directly infringed, and continues to directly infringe the '097 Patent in violation of 35 U.S.C. 271(a) by using, selling, offering for sale in the United States, and importing into the United States, without authorization, the accused products that practice various claims of the '097 Patent literally or under the doctrine of equivalents. Those products include, for example, Bambu's X1C and X1E printers.
- 59. As a non-limiting example, the Accused '097 Products meet every element of at least Claim 1 of the '097 Patent literally or under the doctrine of equivalents. Claim 1 recites:
 - 1. A three-dimensional printer including a build volume, the three-dimensional printer comprising:

a three-dimensional scanner configured to capture threedimensional information from an object being fabricated within the build volume during a print job executing on the three-dimensional printer;

a machine vision system configured to capture and analyze image content from the three-dimensional scanner, thereby providing a status of the print job executing on the three-dimensional printer;

a network interface configured to couple the three-dimensional printer in a communicating relationship with a data network; and

- a web server configured to transmit the status of the print job for display at a remote client through the network interface.
- 60. For example, Bambu Lab makes, uses, sells, offers to sell various 3D printers, including the X1C and X1E, that include a build volume (i.e., a build chamber) and a 3D scanner (e.g., a lidar scanner) that captures information about an object being printed in the chamber. The Bambu Lab 3D printers also include a machine vision system (e.g., a processor that executes

software and/or firmware) that analyses information from the lidar scanner to provide a status of the object being printed (e.g., an artificial intelligence (AI) inspection of the first layer of such object). In addition, Bambu Lab's X1C and X1E printers include a network interface (e.g., an Ethernet, Wi-Fi, LAN, etc. interface) and a web server that transmits the status of the print job (e.g., a camera view of the print job, a completion status of the print job, and/or the results of the AI inspection) via the network interface. Bambu Lab thus directly infringed and continues to directly infringe each limitation of at least Claim 1 of the '097 Patent by using, selling, offering for sale in the United States, and importing into the United States, without authorization the Accused '097 Products.

- 61. To the extent Defendants do not perform each and every limitation of the claims of the '097 Patent, Defendants jointly infringe those claims. In particular, Bambu Lab directs or controls its users of the Accused '097 Products to perform one or more limitations of the claims nationwide through its own websites, applications, and manuals, and expects and intends that the Accused '097 Products will be so used. For example, Defendants require customers and users to use the accused products through the applications Defendants produce and distribute for use. Defendants further require users of the accused products to agree to extensive terms and conditions. Finally, Defendants' customers realize a tangible benefit by using Defendants' technology to print and manufacture tangible items.
- 62. Defendants also indirectly infringe at least Claim 1 of the '097 Patent in violation of 35 U.S.C. 271(b) by taking active steps to encourage and facilitate direct infringement by third parties, including users, partners, affiliates, subsidiaries, resellers, distributors and service providers, in the United States with knowledge and specific intent that its efforts would result in the direct infringement of the '097 Patent. For example, Defendants actively induce infringement

of the '097 Patent by designing, manufacturing, selling, or distributing the Accused '097 Products and then training its customers and users on the use of those products and the accompanying applications, including through the creation and dissemination of supporting materials, maintenance guides, troubleshooting guides, software (including Bambu Studio and Bambu Handy), instructions, product manuals, technical information. and See https://wiki.bambulab.com/en/home. As another example, Defendants actively induces infringement of the '097 Patent by instructing, encouraging, or requiring their subsidiaries and affiliates in the United States to use, sell, offer for sale in the United States, and importing into the United States, without authorization, the accused products that practice various claims of the '097 Patent, such as any Bambu Lab printer that is used in combination with the corresponding applications or controllers (e.g., the Bambu Studio and Bambu Handy, etc.). As yet another example, Defendants actively induce infringement of the '097 Patent through the creation and dissemination of promotional and marketing materials and instructional videos. See https://www.youtube.com/c/BambuLab. Defendants' active inducement is done with the knowledge and the specific intent that its efforts would result in the direct infringement of the '097 Patent.

- 63. Defendants were put on notice of their direct and indirect infringement of the '097 Patent at least as early as August 5, 2024 through a notice letter sent to Defendants. Defendants have knowledge of the '097 Patent and knowledge of how Defendants induce third parties to infringe that patent at least as early as August 5, 2024.
- 64. Defendants are also liable for contributory infringement of the '097 Patent under 35 U.S.C. 271(c) by selling or offering for sale the Accused '097 Products and/or other components (e.g., filament, automatic material system, build plates, etc.) in the United States and importing the

Accused '097 Products and/or other components (e.g., filament, automatic material system, build plates, etc.) in the United States with knowledge that they are especially designed or adapted to operate in a manner that infringes the '097 Patent and are not a staple article or commodity of commerce suitable for substantially non-infringing use. Defendants contribute to infringement of the '097 Patent by, *inter alia*, promotion, and/or sales of the infringing Accused '097 Products and/or other components (e.g., filament, automatic material system, build plates, etc.) to third parties.

- 65. Defendants also have had knowledge of how Defendants infringe the '097 Patent at least as early as August 5, 2024 through a notice letter sent to Defendants. Defendants have knowledge of the '097 Patent and knowledge of how Defendants contribute to third parties' infringement of that patent at least as early as August 5, 2024.
- 66. Defendants' infringement of the '097 Patent has been and continues to be willful. At least as early as August 5, 2024, Defendants were notified of their infringing acts and deliberately continued to infringe the '097 Patent despite knowing of the existence of the patent and how Defendants infringe. Further, Defendants have deliberately continued to encourage others' infringement of the '097 Patent, including by continuing to disseminate its marketing and technical materials to customers.
- 67. Defendants' acts of infringement have injured and damaged Stratasys and will continue to injure and damage Stratasys. Stratasys is therefore entitled to recover from Defendants the damages it has sustained as a result of Defendants' wrongful and continued acts in an amount to be proven at trial.
- 68. Defendants' infringement has damaged and will continue to damage Stratasys irreparably, and Stratasys has no adequate remedy at law for its injuries. In addition to actual

damages, Stratasys is entitled to a permanent injunction enjoining Defendants from infringing the '097 Patent.

69. Stratasys is entitled to all damages to which it otherwise is entitled because it has complied with 35 U.S.C. 287 by marking its patent-practicing products with the number of the '097 Patent.

COUNT 4: U.S. Patent No. 11,886,774

- 70. Stratasys repeats and re-alleges each of the allegations in the foregoing paragraphs as if fully set forth herein.
- 71. Stratasys repeats and re-alleges each of the allegations in the foregoing paragraphs as if fully set forth herein.
- 72. On January 30, 2024, the United States Patent Office (USPTO) duly and lawfully issued United States Patent No. 11,886,774, entitled "Detection And Use Of Printer Configuration Information." By assignment, duly recorded with the USPTO, Stratasys owns all substantial rights to the '774 Patent, including the right to sue and recover damages for all infringement.
- 73. The '774 Patent generally relates to methods for detection of hardware and software properties of a three-dimensional printer that are relevant to fabrication, which allows the selection and use of suitable models.
- 74. Bambu Lab has directly infringed, and continues to directly infringe the '774 Patent in violation of 35 U.S.C. 271(a) by using in the United States, without authorization, the accused products that practice various claims of the '774 Patent literally or under the doctrine of equivalents. Those products include, for example, Bambu Studio.

75. As a non-limiting example, the Accused '774 Products meet every element of at least Claim 1 of the '774 Patent literally or under the doctrine of equivalents. Claim 1 recites:

1. A method comprising:

receiving a request to fabricate an object from a three-dimensional model;

determining a target printer to fabricate the object;

querying the target printer for configuration information of the target printer relevant to creation of a printable model for fabrication of the object on the target printer;

receiving, from the target printer, a dictionary of configuration information containing one or more properties from the target printer that affect fabrication capabilities of the target printer;

creating a fabrication profile based on the one or more properties; and

generating a machine-ready representation of the threedimensional model executable by the target printer to fabricate the object.

76. For example, Bambu Lab makes, uses, sells and offers to sell as well as distributes the Bambu Studio app, which receives requests to fabricate an object from a three-dimensional model and sends instructions to print the object to a particular Bambu Lab 3D printer. Bambu Studio requests configuration information from a target Bambu printer. This information requested of and received from the printer can include printer type, model, nozzle diameter, and filament properties. For example, in the Bambu Studio software, under the "Prepare" tab, in the "Filament" section there is an icon to "Synchronize filament list from AMS." This button queries the Bambu printer for the filament types currently in the printer. When a user selects the synchronize filament button (located under the filament presets), the loaded filament type appears in Bambu Studio based on the provided filament information. When the user selects one of the loaded filaments, the filament preset configuration is used to slice the model. Filament parameters

can also be set by the user based on the provided filament information. Selecting "slice" in Bambu Studio creates a sliced model of the part (e.g., a machine ready representation) that is executable by the target printer to fabricate the object. Bambu Lab thus directly infringed and continues to directly infringe each limitation of at least Claim 1 of the '774 Patent by using, selling, offering for sale in the United States, and importing into the United States, without authorization the Accused '774 Products.

- 77. To the extent Defendants do not perform each and every limitation of the claims of the '774 Patent, Defendants jointly infringe those claims. In particular, Bambu Lab directs or controls its users of the Accused '774 Products to perform one or more limitations of the claims nationwide through its own websites, applications, and manuals, and expects and intends that the Accused '774 Products will be so used. For example, Defendants require customers and users to use the accused products through the applications Defendants produce and distribute for use. Defendants further require users of the accused products to agree to extensive terms and conditions. Finally, Defendants' customers realize a tangible benefit by using Defendants' technology to print and manufacture tangible items.
- 78. Defendants also indirectly infringe at least Claim 1 of the '774 Patent in violation of 35 U.S.C. 271(b) by taking active steps to encourage and facilitate direct infringement by third parties, including users, partners, affiliates, subsidiaries, resellers, distributors and service providers, in the United States with knowledge and specific intent that its efforts would result in the direct infringement of the '774 Patent. For example, Defendants actively induce infringement of the '774 Patent by designing, manufacturing, selling, or distributing the Accused '774 Products and then training its customers and users on the use of those products and the accompanying applications, including through the creation and dissemination of supporting materials,

maintenance guides, troubleshooting guides, software (including Bambu Studio and Bambu Handy), instructions, product manuals, and technical information. See https://wiki.bambulab.com/en/home. As another example, Defendants actively induces infringement of the '774 Patent by instructing, encouraging, or requiring their subsidiaries and affiliates in the United States to use, sell, offer for sale in the United States, and importing into the United States, without authorization, the accused products that practice various claims of the '774 Patent, such as any Bambu Lab printer that is used in combination with the corresponding applications or controllers (e.g., the Bambu Studio and Bambu Handy, etc.). As yet another example, Defendants actively induce infringement of the '774 Patent through the creation and dissemination of promotional and marketing materials and instructional videos. See https://www.youtube.com/c/BambuLab. Defendants' active inducement is done with the knowledge and the specific intent that its efforts would result in the direct infringement of the '774 Patent.

- 79. Defendants were put on notice of their direct and indirect infringement of the '774 Patent at least as early as August 5, 2024 through a notice letter sent to Defendants. Defendants have knowledge of the '774 Patent and knowledge of how Defendants induce third parties to infringe that patent at least as early as August 5, 2024.
- 80. Defendants are also liable for contributory infringement of the '774 Patent under 35 U.S.C. 271(c) by selling or offering for sale the Accused '774 Products and/or other components (e.g., filament, automatic material system, build plates, etc.) in the United States and importing the Accused '774 Products and/or other components (e.g., filament, automatic material system, build plates, etc.) in the United States with knowledge that they are especially designed or adapted to operate in a manner that infringes the '774 Patent and are not a staple article or commodity of

commerce suitable for substantially non-infringing use. Defendants contribute to infringement of the '774 Patent by, *inter alia*, promotion, and/or sales of the infringing Accused '774 Products and/or other components (e.g., filament, automatic material system, build plates, etc.) to third parties.

- 81. Defendants also have had knowledge of how Defendants infringe the '774 Patent at least as early as August 5, 2024 through a notice letter sent to Defendants. Defendants have knowledge of the '774 Patent and knowledge of how Defendants contribute to third parties' infringement of that patent at least as early as August 5, 2024.
- 82. Defendants' infringement of the '774 Patent has been and continues to be willful. At least as early as August 5, 2024, Defendants were notified of their infringing acts and deliberately continued to infringe the '774 Patent despite knowing of the existence of the patent and how Defendants infringe. Further, Defendants have deliberately continued to encourage others' infringement of the '774 Patent, including by continuing to disseminate its marketing and technical materials to customers.
- 83. Defendants' acts of infringement have injured and damaged Stratasys and will continue to injure and damage Stratasys. Stratasys is therefore entitled to recover from Defendants the damages it has sustained as a result of Defendants' wrongful and continued acts in an amount to be proven at trial.
- 84. Defendants' infringement has damaged and will continue to damage Stratasys irreparably, and Stratasys has no adequate remedy at law for its injuries. In addition to actual damages, Stratasys is entitled to a permanent injunction enjoining Defendants from infringing the '774 Patent.

85. Stratasys is entitled to all damages to which it otherwise is entitled because it has complied with 35 U.S.C. 287 by marking its patent-practicing products with the number of the '774 Patent.

COUNT 5: U.S. Patent No. 8,562,324

- 86. Stratasys repeats and re-alleges each of the allegations in the foregoing paragraphs as if fully set forth herein.
- 87. Stratasys repeats and re-alleges each of the allegations in the foregoing paragraphs as if fully set forth herein.
- 88. On October 22, 2013, the United States Patent Office (USPTO) duly and lawfully issued United States Patent No. 8,562,324, entitled "Networked Three-Dimensional Printing" By assignment, duly recorded with the USPTO, Stratasys owns all substantial rights to the '324 Patent, including the right to sue and recover damages for all infringement.
- 89. The '324 Patent generally relates to providing networking capabilities to threedimensional printers so that the fabrication resources are improved.
- 90. Bambu Lab has directly infringed, and continues to directly infringe the '324 Patent in violation of 35 U.S.C. 271(a) by using, selling, offering for sale in the United States, and importing into the United States, without authorization, the accused products that practice various claims of the '324 Patent literally or under the doctrine of equivalents. Those products include, for example, Bambu's X1C, X1E, P1S, P1P, A1 and A1 mini printers.
- 91. As a non-limiting example, the Accused '324 Products meet every element of at least Claim 1 of the '324 Patent literally or under the doctrine of equivalents. Claim 1 recites:
 - 1. A device comprising:

a network interface coupled to a data network;

a video camera positioned to capture video of the build volume from a point of view; and

a processor configured to receive a three-dimensional model through the network interface, and to control operation of the three-dimensional printer to fabricate the three-dimensional model as an object within the build volume of the three-dimensional printer, the processor further configured to provide a user interface to a remote user accessing the device through the network interface, and to present in the user interface an image of the build volume from the video camera and a two-dimensional projection of the three-dimensional model from the point of view of the video camera.

- 92. For example, Bambu Lab makes, uses, sells and offers to sell various 3D printers, including the X1C, X1E, P1S, P1P, A1, and A1 mini, which are used for printing 3D parts in a build volume (i.e., build chamber) of the printer. The Bambu Lab printers include a network interface (e.g., an Ethernet, Wi-Fi, LAN, etc. interface) and a chamber camera that captures video of the build chamber. The Bambu Lab printers also include a processor that receives a 3D model and controls operation of the printer to fabricate an object from the 3D model. A request to fabricate an object from a 3D model can be received from the Bambu Studio or Handy app via the printer's network interface. In addition, the processor of the Bambu Lab printers executes software and/or firmware to collect image content from the chamber camera during execution of the print job and to provide remote users with access to the camera content and a 2D projection of the print job via the Bambu Studio and/or Bambu Handy apps in a user interface. Bambu Lab thus directly infringed and continues to directly infringe each limitation of at least Claim 1 of the '324 Patent by using, selling, offering for sale in the United States, and importing into the United States, without authorization the Accused '324 Products.
- 93. To the extent Defendants do not perform each and every limitation of the claims of the '324 Patent, Defendants jointly infringe those claims. In particular, Bambu Lab directs or

controls its users of the Accused '324 Products to perform one or more limitations of the claims nationwide through its own websites, applications, and manuals, and expects and intends that the Accused '324 Products will be so used. For example, Defendants require customers and users to use the accused products through the applications Defendants produce and distribute for use. Defendants further require users of the accused products to agree to extensive terms and conditions. Finally, Defendants' customers realize a tangible benefit by using Defendants' technology to print and manufacture tangible items.

94. Defendants also indirectly infringe at least Claim 1 of the '324 Patent in violation of 35 U.S.C. 271(b) by taking active steps to encourage and facilitate direct infringement by third parties, including users, partners, affiliates, subsidiaries, resellers, distributors and service providers, in the United States with knowledge and specific intent that its efforts would result in the direct infringement of the '324 Patent. For example, Defendants actively induce infringement of the '324 Patent by designing, manufacturing, selling, or distributing the Accused '324 Products and then training its customers and users on the use of those products and the accompanying applications, including through the creation and dissemination of supporting materials, maintenance guides, troubleshooting guides, software (including Bambu Studio and Bambu Handy), instructions, product manuals, and technical information. See https://wiki.bambulab.com/en/home. As another example, Defendants actively induces infringement of the '324 Patent by instructing, encouraging, or requiring their subsidiaries and affiliates in the United States to use, sell, offer for sale in the United States, and importing into the United States, without authorization, the accused products that practice various claims of the '324 Patent, such as any Bambu Lab printer that is used in combination with the corresponding applications or controllers (e.g., the Bambu Studio and Bambu Handy, etc.). As yet another

example, Defendants actively induce infringement of the '324 Patent through the creation and dissemination of promotional and marketing materials and instructional videos. *See* https://www.youtube.com/c/BambuLab. Defendants' active inducement is done with the knowledge and the specific intent that its efforts would result in the direct infringement of the '324 Patent.

- 95. Defendants were put on notice of their direct and indirect infringement of the '324 Patent at least as early as August 5, 2024 through a notice letter sent to Defendants. Defendants have knowledge of the '324 Patent and knowledge of how Defendants induce third parties to infringe that patent at least as early as August 5, 2024.
- 96. Defendants are also liable for contributory infringement of the '324 Patent under 35 U.S.C. 271(c) by selling or offering for sale the Accused '324 Products and/or other components (e.g., filament, automatic material system, build plates, etc.) in the United States and importing the Accused '324 Products and/or other components (e.g., filament, automatic material system, build plates, etc.) in the United States with knowledge that they are especially designed or adapted to operate in a manner that infringes the '324 Patent and are not a staple article or commodity of commerce suitable for substantially non-infringing use. Defendants contribute to infringement of the '324 Patent by, *inter alia*, promotion, and/or sales of the infringing Accused '324 Products and/or other components (e.g., filament, automatic material system, build plates, etc.) to third parties.
- 97. Defendants also have had knowledge of how Defendants infringe the '324 Patent at least as early as August 5, 2024 through a notice letter sent to Defendants. Defendants have knowledge of the '324 Patent and knowledge of how Defendants contribute to third parties' infringement of that patent at least as early as August 5, 2024.

- 98. Defendants' infringement of the '324 Patent has been and continues to be willful. At least as early as August 5, 2024, Defendants were notified of their infringing acts and deliberately continued to infringe the '324 Patent despite knowing of the existence of the patent and how Defendants infringe. Further, Defendants have deliberately continued to encourage others' infringement of the '324 Patent, including by continuing to disseminate its marketing and technical materials to customers.
- 99. Defendants' acts of infringement have injured and damaged Stratasys and will continue to injure and damage Stratasys. Stratasys is therefore entitled to recover from Defendants the damages it has sustained as a result of Defendants' wrongful and continued acts in an amount to be proven at trial.
- 100. Defendants' infringement has damaged and will continue to damage Stratasys irreparably, and Stratasys has no adequate remedy at law for its injuries. In addition to actual damages, Stratasys is entitled to a permanent injunction enjoining Defendants from infringing the '324 Patent.
- 101. Stratasys is entitled to all damages to which it otherwise is entitled because it has complied with 35 U.S.C. 287 by marking its patent-practicing products with the number of the '324 Patent.

V. JURY DEMAND

- 102. Plaintiff hereby demands a trial by jury.
- 103. The '466 Patent, the '464 Patent, the '097 Patent, the '774 Patent and the '324 Patent are collectively referred to as "Asserted Patents."

PRAYER

WHEREFORE, Plaintiff prays for judgment in their favor on all counts in the Complaint

and requests relief as follows:

- A. Declaring that Defendants have infringed the Asserted Patents, directly and indirectly, literally and/or under the doctrine of equivalents.
- B. Awarding Stratasys damages arising out of this infringement of the Asserted Patents, including enhanced damages pursuant to 35 U.S.C. 284.
- C. Permanently enjoining Defendants and their respective officers, agents, servants, employees, and those acting in privity with it, from further infringement, including inducing infringement and contributory infringement, of the Asserted Patents.
- D. Awarding attorneys' fees to Stratasys pursuant to 35 U.S.C. 285 or as otherwise permitted by law; and
- **E.** Awarding to Stratasys such other costs and further relief as the Court deems just and proper.

Dated: August 8, 2024 Respectfully submitted,

By:/s/ Kevin J. Meek by permission Andrea L. Fair

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