

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

Stratasys, Inc.,	§	
	§	
Plaintiff,	§	CIVIL ACTION NO. 2:24-cv-644
	§	
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 separately 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 PolyJet™, powder-bed-based SAF®, photopolymer-based P3™, 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. 9,421,713

22. Stratasys repeats and re-alleges each of the allegations in the foregoing paragraphs as if fully set forth herein.

23. On August 23, 2016, the United States Patent Office (USPTO) duly and lawfully issued United States Patent No. 9,421,713, entitled “Additive Manufacturing Method For Printing Three-Dimensional Parts With Purge Towers.” By assignment, duly recorded with the USPTO, Stratasys owns all substantial rights to the ’713 Patent, including the right to sue and recover damages for all infringement.

24. The ’713 Patent generally relates to additive three-dimensional printing with purge towers.

25. Bambu Lab has directly infringed, and continues to directly infringe the ’713 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 ’713 Patent literally or under the doctrine of equivalents. Those products include, for example, Bambu’s X1C, X1E, and P1S, and P1P printers.

26. As a non-limiting example, the Accused ’713 Products meet every element of at least Claim 1 of the ’713 Patent literally or under the doctrine of equivalents. Claim 1 recites:

1. A method for printing a three-dimensional part with an additive manufacturing system, the method comprising:

printing layers of the three-dimensional part and of a support structure for the three-dimensional part from multiple print heads or deposition lines using a layer-based, additive manufacturing technique;

switching the print heads or deposition line between stand-by modes and operating modes in-between the printing of the layers of the three-dimensional part and the support structure;

performing a purge operation for each print head or deposition line switched to the operating mode, the purge operation comprising printing at least one purge tower in a layer-by-layer manner, wherein the layers of the at least one purge tower are printed from the print head or deposition line switched to the operating mode.

27. For example, Bambu Lab makes, uses, sells and offers to sell various additive manufacturing systems (i.e., 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 supports multiple filament spools each having an independent deposition line operatively coupled to the print head of the 3D printer. Furthermore, Bambu Labs distributes Bambu Studio for use in conjunction with its 3D printers. Bambu Studio includes use of support material (as needed) in its slicer software, and it instructs the 3D printer to switch deposition lines between printing of part material and printing of support material. In addition, the Bambu Studio slicer software instructs the Bambu Labs 3D printers to perform a purge operation to a prime tower when a deposition line is switched between the part material and the support material. Bambu Lab thus directly infringed and continues to directly infringe each limitation of at least Claim 1 of the '713 Patent by using, in the United States, without authorization the Accused '713 Products.

28. To the extent Defendants do not perform each and every limitation of the claims of the '713 Patent, Defendants jointly infringe those claims. In particular, Defendants direct or control its users of the Accused '713 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 '713 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.

29. Defendants also indirectly infringe at least Claim 1 of the '713 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 '713 Patent. For example, Defendants actively induce infringement of the '713 Patent by designing, manufacturing, selling, or distributing the Accused '713 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 '713 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 '713 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 '713 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 '713 Patent.

30. Defendants were put on notice of their direct and indirect infringement of the '713 Patent at least as early as August 5, 2024 through a notice letter sent to Defendants. Defendants have knowledge of the '713 Patent and knowledge of how Defendants induce third parties to infringe that patent at least as early as August 5, 2024.

31. Defendants are also liable for contributory infringement of the '713 Patent under 35 U.S.C. 271(c) by selling or offering for sale the Accused '713 Products and/or other components (e.g., filament, automatic material system, build plates, etc.) in the United States and importing the Accused '713 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 '713 Patent and are not a staple article or commodity of commerce suitable for substantially non-infringing use. Defendants contribute to infringement of the '713 Patent by, *inter alia*, promotion, and/or sales of the infringing Accused '713 Products and/or other components (e.g., filament, automatic material system, build plates, etc.) to third parties.

32. Defendants also have had knowledge of how Defendants infringe the '713 Patent at least as early as August 5, 2024 through a notice letter sent to Defendants. Defendants have knowledge of the '713 Patent and knowledge of how Defendants contribute to third parties' infringement of that patent at least as early as August 5, 2024.

33. Defendants' infringement of the '713 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 '713 Patent despite knowing of the existence of the patent and how Defendants infringe. Further, Defendants have deliberately continued to encourage others' infringement of the '713 Patent, including by continuing to disseminate its marketing and technical materials to customers.

34. 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.

35. 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 '713 Patent.

36. 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 '713 Patent.

COUNT 2: U.S. Patent No. 9,592,660

37. Stratasys repeats and re-alleges each of the allegations in the foregoing paragraphs as if fully set forth herein.

38. Stratasys repeats and re-alleges each of the allegations in the foregoing paragraphs as if fully set forth herein.

39. On March 14, 2017, the United States Patent Office (USPTO) duly and lawfully issued United States Patent No. 9,592,660, entitled “Heated Build Platform And System For Three-Dimensional Printing Methods.” By assignment, duly recorded with the USPTO, Strataysys owns all substantial rights to the ’660 Patent, including the right to sue and recover damages for all infringement.

40. The ’660 Patent generally relates to a base for printing 3D objects using high temperature thermoplastics using additive manufacturing methods.

41. Bambu Lab has directly infringed, and continues to directly infringe the ’660 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 ’660 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.

42. As a non-limiting example, the Accused ’660 Products meet every element of at least Claim 1 of the ’660 Patent literally or under the doctrine of equivalents. Claim 1 recites:

1. A build apparatus for printing a 3D object of thermoplastics employing additive manufacturing methods, the apparatus comprising:

a build platform with a temperature control unit configured to control heating of the build platform;

a thermally conductive plate disposed adjacent to the build platform; and

a polymer coating attached to a surface of the thermally conductive plate which is capable of (i) facilitating adhesion to the 3D object during printing and (ii) permitting removal of the 3D object once the 3D object has been formed and cooled without chemically or mechanically removing the polymer coating from 3D object and without damaging the polymer coating, the thermally conductive plate, or the 3D object, wherein the polymer coating is not a polymer tape.

43. For example, Bambu Lab makes, uses, sells and offers to sell various additive manufacturing systems (i.e., 3D printers), including the X1C, X1E, P1S, P1P, A1, and A1 mini, which are used for printing three-dimensional parts using thermoplastic filaments. The Bambu printers have a heated build platform (i.e., heatbed). In addition, Bambu sells thermally conductive build plates with their 3D printers, such as the Bambu Engineering Plate, Textured PEI Plate, and High Temperature Plate, that are placed on the heatbed for fabrication of the 3D part. These build plates are made by coating a polymer (e.g., polyetherimide) onto a steel sheet, which facilitates adhesion of the 3D part to the build plate. The 3D object is removable from the build plate without chemically or mechanically removing the polymer coating and without damaging the polymer coating, such as by flexing the build plate after the 3D object has cooled. Bambu Lab thus directly infringed and continues to directly infringe each limitation of at least Claim 1 of the '660 Patent by using, selling, offering for sale in the United States, and importing into the United States, without authorization the Accused '660 Products.

44. To the extent Defendants do not perform each and every limitation of the claims of the '660 Patent, Defendants jointly infringe those claims. In particular, Bambu Lab directs or controls its users of the Accused '660 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 '660 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.

45. Defendants also indirectly infringe at least Claim 1 of the '660 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 '660 Patent. For example, Defendants actively induce infringement of the '660 Patent by designing, manufacturing, selling, or distributing the Accused '660 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 '660 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 '660 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 '660 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 '660 Patent.

46. Defendants were put on notice of their direct and indirect infringement of the '660 Patent at least as early as August 5, 2024 through a notice letter sent to Defendants. Defendants

have knowledge of the '660 Patent and knowledge of how Defendants induce third parties to infringe that patent at least as early as August 5, 2024.

47. Defendants are also liable for contributory infringement of the '660 Patent under 35 U.S.C. 271(c) by selling or offering for sale the Accused '660 Products and/or other components (e.g., filament, automatic material system, build plates, etc.) in the United States and importing the Accused '660 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 '660 Patent and are not a staple article or commodity of commerce suitable for substantially non-infringing use. Defendants contribute to infringement of the '660 Patent by, *inter alia*, promotion, and/or sales of the infringing Accused '660 Products and/or other components (e.g., filament, automatic material system, build plates, etc.) to third parties.

48. Defendants also have had knowledge of how Defendants infringe the '660 Patent at least as early as August 5, 2024 through a notice letter sent to Defendants. Defendants have knowledge of the '660 Patent and knowledge of how Defendants contribute to third parties' infringement of that patent at least as early as August 5, 2024.

49. Defendants' infringement of the '660 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 '660 Patent despite knowing of the existence of the patent and how Defendants infringe. Further, Defendants have deliberately continued to encourage others' infringement of the '660 Patent, including by continuing to disseminate its marketing and technical materials to customers.

50. 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.

51. 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 '660 Patent.

52. 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 '660 Patent.

COUNT 3: U.S. Patent No. 7,555,357

53. Stratasys repeats and re-alleges each of the allegations in the foregoing paragraphs as if fully set forth herein.

54. Stratasys repeats and re-alleges each of the allegations in the foregoing paragraphs as if fully set forth herein.

55. On June 30, 2009, the United States Patent Office (USPTO) duly and lawfully issued United States Patent No. 7,555,357, entitled "Method For Building Three-Dimensional Objects With Extrusion-Based Layer Deposition Systems." By assignment, duly recorded with the USPTO, Stratasys owns all substantial rights to the '357 Patent, including the right to sue and recover damages for all infringement.

56. The '357 Patent generally relates to methods of forming three-dimensional objects using an extrusion-based layered deposition system that generates a build path for building a layer of the three-dimensional object where the build path defines a void region.

57. Bambu Lab has directly infringed, and continues to directly infringe the '357 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 '357 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.

58. As a non-limiting example, the Accused '357 Products meet every element of at least Claim 15 of the '357 Patent literally or under the doctrine of equivalents. Claim 15 recites:

15. A method of forming a three-dimensional object using an extrusion-based layered deposition system, the method comprising:

generating a build path for building a layer of the three-dimensional object with a plurality of first deposition roads based on a first road width resolution, wherein the build path defines a void region having dimensions that are smaller than the first road width resolution along at least one axis; and

generating a remnant path in the void region for filling at least [part] of a cavity corresponding to the defined void region with a second deposition road based on deposition rates that are configured to vary based on the dimensions of the void region.

59. For example, Bambu Lab makes, uses, sells and offers to sell various extrusion-based layered deposition systems (i.e., 3D printers), including the X1C, X1E, P1S, P1P, A1, and A1 mini, which are used for printing three-dimensional parts. A 3D model of the 3D object to be printed is loaded into Bambu Studio and sliced to generate a .3mf file, which is the file format used for the printer to be able to print the model. The .3mf file contains instructions for executing build paths (e.g., "roads," "walls," etc.) during the printing of the object. These instructions are provided to a Bambu Lab 3D printer and executed by the printer to, for example, generate void regions

formed using walls of one width that that are filled in with remnant paths of another width. For example, the Bambu Lab Wiki describes the concept of wall distribution count as a parameter for adjusting a number of and width of walls. For example, widths of a wall are modified to fill a void formed between other walls. Bambu Lab thus directly infringed and continues to directly infringe each limitation of at least Claim 15 of the '357 Patent by using in the United States, without authorization the Accused '357 Products.

60. To the extent Defendants do not perform each and every limitation of the claims of the '357 Patent, Defendants jointly infringe those claims. In particular, Bambu Lab directs or controls its users of the Accused '357 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 '357 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.

61. Defendants also indirectly infringe at least Claim 15 of the '357 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 '357 Patent. For example, Defendants actively induce infringement of the '357 Patent by designing, manufacturing, selling, or distributing the Accused '357 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 '357 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 '357 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 '357 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 '357 Patent.

62. Defendants were put on notice of their direct and indirect infringement of the '357 Patent at least as early as August 5, 2024 through a notice letter sent to Defendants. Defendants have knowledge of the '357 Patent and knowledge of how Defendants induce third parties to infringe that patent at least as early as August 5, 2024.

63. Defendants are also liable for contributory infringement of the '357 Patent under 35 U.S.C. 271(c) by selling or offering for sale the Accused '357 Products and/or other components (e.g., filament, automatic material system, build plates, etc.) in the United States and importing the Accused '357 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 '357 Patent and are not a staple article or commodity of

commerce suitable for substantially non-infringing use. Defendants contribute to infringement of the '357 Patent by, *inter alia*, promotion, and/or sales of the infringing Accused '357 Products and/or other components (e.g., filament, automatic material system, build plates, etc.) to third parties.

64. Defendants also have had knowledge of how Defendants infringe the '357 Patent at least as early as August 5, 2024 through a notice letter sent to Defendants. Defendants have knowledge of the '357 Patent and knowledge of how Defendants contribute to third parties' infringement of that patent at least as early as August 5, 2024.

65. Defendants' infringement of the '357 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 '357 Patent despite knowing of the existence of the patent and how Defendants infringe. Further, Defendants have deliberately continued to encourage others' infringement of the '357 Patent, including by continuing to disseminate its marketing and technical materials to customers.

66. 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.

67. 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 '357 Patent.

68. 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 '357 Patent.

COUNT 4: U.S. Patent No. 9,168,698

69. Stratasys repeats and re-alleges each of the allegations in the foregoing paragraphs as if fully set forth herein.

70. Stratasys repeats and re-alleges each of the allegations in the foregoing paragraphs as if fully set forth herein.

71. On October 27, 2015, the United States Patent Office (USPTO) duly and lawfully issued United States Patent No. 9,168,698, entitled "Three-Dimensional Printer With Force Detection." By assignment, duly recorded with the USPTO, Stratasys owns all substantial rights to the '698 Patent, including the right to sue and recover damages for all infringement.

72. The '698 Patent generally relates to methods for detecting contact force against an extruder or other tool head of a three-dimensional printer.

73. Bambu Lab has directly infringed, and continues to directly infringe the '698 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 '698 Patent literally or under the doctrine of equivalents. Those products include, for example, Bambu's A1 and A1 mini printers.

74. As a non-limiting example, the Accused '698 Products meet every element of at least Claim 1 of the '698 Patent literally or under the doctrine of equivalents. Claim 1 recites:

1. A method comprising:
 - identifying build instructions for fabricating an object;
 - initiating a build using a three-dimensional printer comprising a

fabrication tool and one or more sensors mechanically coupled to the fabrication tool, the one or more sensors configured to detect a current contact force between the fabrication tool and a separate structure;

detecting the current contact force based on a sensor signal from the one or more sensors; and

creating a control signal to control at least one component of the three-dimensional printer in response to the current contact force while depositing material during the build.

75. For example, Bambu Lab makes, uses, sells and offers to sell various additive manufacturing systems (i.e., 3D printers), including the A1 and A1 mini, which are used for fabricating three-dimensional parts using build instructions. A request to fabricate an object from build instructions can be received at least via the user interface on the printer and via the Bambu Studio or Handy apps. The Bambu Labs A1 and A1 mini 3D printers include an extrusion nozzle with an extrusion force sensor (e.g., an eddy force sensor). The force sensor is used to detect a force caused by nozzle clumping (e.g., the force of filament material clumped around the nozzle being pushed against the heatbed) and to automatically stop a print job based on this detected force. Bambu Lab thus directly infringed and continues to directly infringe each limitation of at least Claim 1 of the '698 Patent by using in the United States, without authorization the Accused '698 Products.

76. To the extent Defendants do not perform each and every limitation of the claims of the '698 Patent, Defendants jointly infringe those claims. In particular, Bambu Lab directs or controls its users of the Accused '698 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 '698 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.

77. Defendants also indirectly infringe at least Claim 1 of the '698 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 '698 Patent. For example, Defendants actively induce infringement of the '698 Patent by designing, manufacturing, selling, or distributing the Accused '698 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 '698 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 '698 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 '698 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 '698 Patent.

78. Defendants were put on notice of their direct and indirect infringement of the '698 Patent at least as early as August 5, 2024 through a notice letter sent to Defendants. Defendants have knowledge of the '698 Patent and knowledge of how Defendants induce third parties to infringe that patent at least as early as August 5, 2024.

79. Defendants are also liable for contributory infringement of the '698 Patent under 35 U.S.C. 271(c) by selling or offering for sale the Accused '698 Products and/or other components (e.g., filament, automatic material system, build plates, etc.) in the United States and importing the Accused '698 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 '698 Patent and are not a staple article or commodity of commerce suitable for substantially non-infringing use. Defendants contribute to infringement of the '698 Patent by, *inter alia*, promotion, and/or sales of the infringing Accused '698 Products and/or other components (e.g., filament, automatic material system, build plates, etc.) to third parties.

80. Defendants also have had knowledge of how Defendants infringe the '698 Patent at least as early as August 5, 2024 through a notice letter sent to Defendants. Defendants have knowledge of the '698 Patent and knowledge of how Defendants contribute to third parties' infringement of that patent at least as early as August 5, 2024.

81. Defendants' infringement of the '698 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 '698 Patent despite knowing of the existence of the patent and how Defendants infringe. Further, Defendants have deliberately continued to encourage

others' infringement of the '698 Patent, including by continuing to disseminate its marketing and technical materials to customers.

82. 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.

83. 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 '698 Patent.

84. 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 '698 Patent.

COUNT 5: U.S. Patent No. 10,556,381

85. Stratasys repeats and re-alleges each of the allegations in the foregoing paragraphs as if fully set forth herein.

86. Stratasys repeats and re-alleges each of the allegations in the foregoing paragraphs as if fully set forth herein.

87. On February 11, 2020, the United States Patent Office (USPTO) duly and lawfully issued United States Patent No. 10,556,381, entitled "Three-Dimensional Printer With Force Detection." By assignment, duly recorded with the USPTO, Stratasys owns all substantial rights to the '381 Patent, including the right to sue and recover damages for all infringement.

88. The '381 Patent generally relates to a three-dimensional printer that includes an extruder or another tool head to detect contact forces during fabrication.

89. Bambu Lab has directly infringed, and continues to directly infringe the '381 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 '381 Patent literally or under the doctrine of equivalents. Those products include, for example, Bambu's A1 and A1 mini printers.

90. As a non-limiting example, the Accused '381 Products meet every element of at least Claim 1 of the '381 Patent literally or under the doctrine of equivalents. Claim 1 recites:

1. A three-dimensional printer comprising:

a fabrication tool including an extruder configured to extrude build material to fabricate an object during a build process;

one or more sensors mechanically coupled to the extruder, wherein the one or more sensors are collectively operable to sense a contact force between the extruder and a separate structure distinct from the fabrication tool; and

a controller configured to receive a signal from the one or more sensors on the extruder and to calculate the contact force between the extruder and the separate structure.

91. For example, Bambu Lab makes, uses, sells and offers to sell various additive manufacturing systems (i.e., 3D printers), including the A1 and A1 mini, which are used for fabricating three-dimensional parts using build instructions. A request to fabricate an object from build instructions can be received at least via the user interface on the printer and via the Bambu Studio or Handy apps. The Bambu Labs A1 and A1 mini 3D printers include an extrusion nozzle with an extrusion force sensor (e.g., an eddy force sensor). The force sensor is used to detect a force caused by nozzle clumping (e.g., the force of filament material clumped around the nozzle being pushed against the heatbed) and to automatically stop a print job based on this detected force.

Bambu Lab thus directly infringed and continues to directly infringe each limitation of at least Claim 1 of the '381 Patent by using, selling, offering for sale in the United States, and importing into the United States, without authorization the Accused '381 Products.

92. To the extent Defendants do not perform each and every limitation of the claims of the '381 Patent, Defendants jointly infringe those claims. In particular, Bambu Lab directs or controls its users of the Accused '381 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 '381 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.

93. Defendants also indirectly infringe at least Claim 1 of the '381 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 '381 Patent. For example, Defendants actively induce infringement of the '381 Patent by designing, manufacturing, selling, or distributing the Accused '381 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 '381 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 '381 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 '381 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 '381 Patent.

94. Defendants were put on notice of their direct and indirect infringement of the '381 Patent at least as early as August 5, 2024 through a notice letter sent to Defendants. Defendants have knowledge of the '381 Patent and knowledge of how Defendants induce third parties to infringe that patent at least as early as August 5, 2024.

95. Defendants are also liable for contributory infringement of the '381 Patent under 35 U.S.C. 271(c) by selling or offering for sale the Accused '381 Products and/or other components (e.g., filament, automatic material system, build plates, etc.) in the United States and importing the Accused '381 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 '381 Patent and are not a staple article or commodity of commerce suitable for substantially non-infringing use. Defendants contribute to infringement of the '381 Patent by, *inter alia*, promotion, and/or sales of the infringing Accused '381 Products

and/or other components (e.g., filament, automatic material system, build plates, etc.) to third parties.

96. Defendants also have had knowledge of how Defendants infringe the '381 Patent at least as early as August 5, 2024 through a notice letter sent to Defendants. Defendants have knowledge of the '381 Patent and knowledge of how Defendants contribute to third parties' infringement of that patent at least as early as August 5, 2024.

97. Defendants' infringement of the '381 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 '381 Patent despite knowing of the existence of the patent and how Defendants infringe. Further, Defendants have deliberately continued to encourage others' infringement of the '381 Patent, including by continuing to disseminate its marketing and technical materials to customers.

98. 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.

99. 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 '381 Patent.

100. 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 '381 Patent.

V. JURY DEMAND

101. Plaintiff hereby demands a trial by jury.

102. The '713 Patent, the '660 Patent, the '357 Patent, the '698 Patent and the '381 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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