

UNITED STATES DISTRICT COURT  
DISTRICT OF SOUTH CAROLINA  
ROCK HILL DIVISION

3D SYSTEMS, INC.,	:
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Plaintiff,	:
v.	:
	:
FORMLABS, INC. and KICKSTARTER, INC.,	:
	:
Defendants.	:
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	:
	x

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**COMPLAINT FOR INJUNCTIVE RELIEF AND DAMAGES**

Plaintiff 3D Systems, Inc., by its complaint of patent infringement against defendants Formlabs, Inc. and Kickstarter, Inc., alleges and avers as follows:

**PARTIES**

1. Plaintiff 3D Systems, Inc., ("3D Systems") is a California corporation having a place of business at 333 Three D Systems Circle, Rock Hill, South Carolina 29730.
2. Upon information and belief, defendant Formlabs, Inc. ("Formlabs") is a Massachusetts corporation having a place of business at 288 Norfolk Street, Suite 4, Cambridge, Massachusetts 02139.
3. Upon information and belief, defendant Kickstarter, Inc. ("Kickstarter") is a Delaware corporation having a place of business at 155 Rivington Street, 2<sup>nd</sup> Floor, New York, New York 10002.

**JURISDICTION AND VENUE**

4. This action arises under the patent laws of the United States, 35 U.S.C. §§ 1 *et seq.* This Court has subject matter jurisdiction over this action under 28 U.S.C. §§ 1331, 1332, and 1338(a).

5. This Court has personal jurisdiction over Formlabs and Kickstarter by virtue of at least Formlabs' and Kickstarter's website sales activities of regularly soliciting and conducting sales activities within South Carolina and this judicial district.

6. Venue is proper in this judicial district under 28 U.S.C. §§ 1391(b), 1391(c), and 1400(b).

**BACKGROUND FACTS**

7. 3D Systems is a global company that has developed technology in additive manufacturing which it has incorporated into systems, sold in the United States and abroad, for generating three-dimensional prototypes and commercial products from digital designs. Certain of these systems create physical three-dimensional objects from a liquid medium involving the application of solid imaging techniques, including stereolithographic techniques. To protect 3D System's technology, 3D Systems has applied for and obtained numerous patents in the United States and abroad.

8. Upon information and belief, Formlabs is in the business of manufacturing and selling systems used for creating physical three-dimensional objects from digital designs using solid imaging techniques, including stereolithographic techniques. These products are marketed within the United States and within the jurisdiction of this Court, under the name "The Form 1 High Resolution Desktop 3D Printer" (the "Form 1 3D printer").

9. Formlabs' website, <http://formlabs.com>, promotes the Form 1 3D printer as follows: "The Form 1 marries high-end stereolithography (SL) technology and a seamless user experience at a price affordable to the professional designer, engineer and maker."

10. Upon information and belief, Kickstarter is a funds raiser and selling agent of Formlabs and has offered for sale and sold Form 1 3D printers within the United States and within this jurisdiction of this Court via its website: <http://www.kickstarter.com/projects/formlabs/form-1-an-affordable-professional-3d-printer>.

11. Upon information and belief, on or about September 26, 2012, Formlabs launched a sales campaign with Kickstarter with a goal of raising \$100,000. Upon information and belief, when this sales campaign ended on October 26, 2012, Formlabs had been pledged \$2,945,885 by 2,068 backers. Upon information and belief, the backers pledged from as little as \$5.00 for an .STL file to as much as \$10,000 for a Form 1 3D printer.

12. Upon information and belief, the majority of the funds for Formlabs were raised by Formlabs' and Kickstarter's sales of 1,028 Form 1 3D printers to be delivered from February 2013 to April 2013. The Form 1 3D printers were initially sold at \$2,299 and the prices were increased to \$2,999.

13. According to the terms of Kickstarter and as stated in the Kickstarter FAQs: "Every project creator sets their project's funding goal and deadline. If people like the project, they can pledge money to make it happen. If the project succeeds in reaching its funding goal, all backers' credit cards are charged when time expires. If the project falls short, no one is charged. Funding on Kickstarter is all-or-nothing."

14. Therefore, upon information and belief, in Kickstarter's case, all 2,068 backers were charged their respective amounts on October 26, 2012, and that money was then made available

to Formlabs, minus the 5% fee to Kickstarter and the 3%-5% fees for credit card processing. Upon information and belief, Kickstarter requires all creators, such as Formlabs, "to fulfill all rewards of their project or refund any backer whose reward they do not or cannot fulfill."

15. Accordingly, upon information and belief, Kickstarter and Formlabs have sold 1,028 Form 1 3D printers to the respective backers and customers even though deliveries are not scheduled to begin until February 2013.

16. Furthermore, upon information and belief, the Terms of Use of Kickstarter include a term that companies such as Formlabs will not submit content that infringes any patent.

17. Upon information and belief, Formlabs and its sales agent Kickstarter knew or should have known about, or were willfully blind to, 3D Systems' extensive patent rights in the area of three-dimensional printing and stereolithography, including but not limited to 3D Systems' U.S. Patent No. 5,597,520 covering improved methods of stereolithographically forming a three-dimensional object by forming cross-sectional layers of an object from a material capable of physical transformation upon exposure to synergistic stimulation, by virtue of their sales of machines touted by Formlabs as using "stereolithography (SL) technology," which is a technology invented and extensively patented by 3D Systems and its founder Charles Hull.

18. This action relates to the defendants' infringement of at least one of 3D Systems' United States patents covering various three-dimensional solid imaging products and methods for creating physical three-dimensional models of an object using solid imaging techniques.

**PATENT AT ISSUE**

19. On January 28, 1997, the United States Patent and Trademark Office duly and legally issued United States Patent No. 5,597,520 by Smalley, Vorgitch, Manners, Hull, and

VanDorin ("the '520 Patent") for an invention entitled "Simultaneous Multiple Layer Curing In Stereolithography." A copy of the '520 Patent is attached hereto as Exhibit A.

20. 3D Systems is the owner of the entire right, title, and interest in and to the '520 Patent as evidenced by an assignment recorded with the U.S. Patent and Trademark Office on July 11, 1994.

**FIRST CLAIM FOR RELIEF**  
**Formlabs' Infringement Of The '520 Patent**

21. 3D Systems realleges and incorporates herein the foregoing allegations in paragraphs 1-20 as if set forth in their entirety.

22. Upon information and belief, Formlabs' Form 1 3D printer is used for a process of stereolithographically forming a three-dimensional object by forming cross-sectional layers of the object from a material capable of physical transformation upon exposure to synergistic stimulation, including the steps of receiving data descriptive of cross-sectional layers, forming cross-sectional layers by selectively exposing the material to the synergistic stimulation according to data descriptive of the cross-sectional layers to build up the three-dimensional object layer-by-layer, and in particular in a process that infringes one or more claims the '520 Patent.

23. Upon information and belief, Formlabs has made, used, offered to sell and sold its Form 1 3D printers in the United States and within the jurisdiction of the Court that directly infringe at least claims 1 and 23 of the '520 Patent, which infringement is ongoing. For example, upon information and belief, Formlab's own demonstrations and uses of its Form 1 3D printers practice the claimed steps of at least claims 1 and 23 of the '520 Patent, and thus Formlabs directly infringes the '520 Patent.

24. Upon information and belief, Formlabs, by its manufacture, use, offer to sell and sales of Form 1 3D printers, has also actively induced infringement of and/or has contributorily infringed these at least claims 1 and 23 of the '520 Patent, which infringement is ongoing.

25. Upon information and belief, Formlabs had specific intent to infringe the '520 Patent by virtue of its actual knowledge of the '520 Patent and/or at least its willful blindness to the existence of the unexpired '520 Patent, which it knew of or should have known existed by virtue of its making, using, selling and offering a 3D printer using specific stereolithography curing technology that can produce parts by delaying the curing of at least portions of some cross-sections until subsequent layers are formed and when sufficient exposure can be applied to achieve the desired depth of cure, in the same manner that 3D Systems' patented stereolithography curing methods and machines delay curing.

26. Upon information and belief, Formlabs subjectively believed that there was high probability that there was a patent of 3D Systems that covered its delaying of curing methodology practiced by its Form 1 3D printer and took deliberate acts to avoid learning of this fact by at least evaluating 3D Systems' patent portfolio and finding applicable patents that have expired but willfully blinding itself to 3D Systems' patents that have not expired and specifically relate to delayed curing processes employed by Formlabs' Form 1 3D printer, including 3D Systems' '520 Patent.

27. Upon information and belief, to the extent the '520 Patent was not known by Formlabs, Formlabs attempted to deliberately shield itself from learning of the '520 Patent while it was aware of 3D Systems' patented stereolithography machines as demonstrated by many articles on the Internet about Formlabs' release of the Form 1 3D printer as having negative implications for 3D Systems, including <http://www.benzinga.com/analyst-ratings/analyst->

color/12/09/2939278/jp-morgan-formlabs-release-could-be-negative-for-3d-syst#ixzz2CghpiVv6 reporting on JP Morgan's published report on 3D Systems that commented on potential negative implications for 3D Systems as a result of Formlabs' new 3D printer.

28. Upon information and belief, Formlabs' also deliberately shielded itself from learning of 3D Systems' '520 Patent when it knew, as is well known in the industry of converting digital designs into three-dimensional objects, that 3D Systems was the pioneer of stereolithography technology and has a significant patent portfolio covering numerous different aspects of stereolithographic methods and apparatus, including patents like the '520 Patent that cover delaying the curing of at least portions of some cross-sections of an object and that 3D Systems has previously asserted its patents in patent infringement lawsuits against companies that use stereolithography technology that infringe upon 3D Systems' patents.

29. The fact that it is well-known in the industry that 3D Systems' patents would apply to Formlabs' Form 1 3D printer is shown from reviews of the Form 1 3D printer that Formlabs knew or should have known about, including a September 27, 2012 review from the website SolidSmack.com, <http://solidsmack.com/cad-design-news/form-1-by-formlabs-launches-on-kickstarter/>, that stated: "Utilizing Stereolithography (yet avoiding the patents, apparently), the Form 1 is capable of high quality 3D prints."

30. Additional evidence that 3D Systems was well-known in the industry as the owner of patents relating to stereolithography is provided in a September 26, 2012 review of the Form 1 3D printer from the website 3D Printing News and Trends, [http://3dprintingreviews.blogspot.com/2012\\_09\\_01\\_archive.html](http://3dprintingreviews.blogspot.com/2012_09_01_archive.html), which stated "Note - Patents in this area are owned by 3DSYSTEMS Inc. There is a simplicity and beauty to the technique which

could be easy to replicate. Have patents expired? Have FormLabs licensed any required IP, or have they found a new approach which can itself be protected by new patents?"

31. As further evidence of Formlabs' knowledge of, or its willful blindness to, 3D Systems' patents including the '520 Patent, upon information and belief, one of the co-founders of Formlabs, Maxim Lobovsky, stated on September 27, 2012 at <http://techcrunch.com/2012/09/27/3d-printer-form-1-gets-6x-its-100k-funding-goal-on-kickstarter-in-one-day/> that "The second factor [in bringing down the cost of the 3D printer] was the expiration of a few patents, meaning that the team didn't need to pay high licensing fees to get this product to market." Upon information and belief, Mr. Lobovsky is referring to the expiration of a number of pioneering patents owned by 3D Systems that would have covered the Form 1 3D printer if not expired.

32. Upon information and belief, still further evidence of Formlabs' knowledge of, or its willful blindness to, 3D Systems' unexpired patents covering its Form 1 3D printer is from an article indicating Formlabs' awareness of 3D Systems' stereolithography patents, in which Formlabs' Lead Engineer, Ian Ferguson, was asked, "What factors attribute to the lower cost of the printer?" to which he responded, "There are three main factors. First, certain patents have expired relating to the Stereolithography process." <http://solidsmack.com/fabrication/behind-the-design-the-formlabs-form-1-3d-printer/>.

33. Upon information and belief, Formlabs induces and contributes to the infringement of the '520 Patent by offering to sell and selling within the United States its Form 1 3D printer that is specifically constructed to produce three-dimensional objects as explained and demonstrated at the Formlabs website, <http://formlabs.com>, the Kickstarter website, <http://www.kickstarter.com/projects/formlabs/form-1-an-affordable-professional-3d-printer>, and



at the website <http://www.viddler.com/v/44c6f51f?secret=64449135>, in accordance with the methods patented in the '520 Patent, and which has no other substantial noninfringing uses.

34. Upon information and belief, Formlabs induces and contributes to the infringement of the '520 Patent by offering and selling within the United States its Form 1 3D printer apparatus for use in practicing patented processes of the '520 Patent, constituting a material part of the invention of the '520 Patent, knowing the same to be especially made or especially adapted for use in an infringement of the '520 Patent, and such apparatus is not a staple article or commodity of commerce suitable for substantial noninfringing use.

35. Upon information and belief, Formlabs knowingly or with willful blindness induced and continues to induce infringement and possessed specific intent to encourage another's infringement by, or was willfully blind as to the '520 Patent and with respect to, its activities described above.

36. The foregoing acts of patent infringement by Formlabs has caused, and unless enjoined by this Court, will continue to cause, immediate and irreparable injury and damage to 3D Systems, and 3D Systems has no adequate remedy at law.

## **SECOND CLAIM FOR RELIEF**

### **Kickstarter's Infringement Of The '520 Patent**

37. 3D Systems realleges and incorporates herein the foregoing allegations in paragraphs 1-35 as if set forth in their entirety.

38. Upon information and belief, Kickstarter has offered to sell and sold Form 1 3D printers in the United States and within the jurisdiction of the Court that directly infringe at least claims 1 and 23 of the '520 Patent, which infringement is ongoing.

39. Upon information and belief, Kickstarter, by its offers to sell and sales of Form 1 3D printers, and as an agent for Formlabs, has actively induced infringement of and/or has

contributorily infringed these at least claims 1 and 23 of the '520 Patent, which infringement is ongoing.

40. Upon information and belief, Kickstarter had specific intent to infringe the '520 Patent by virtue of its agency, business and sales arrangement with Formlabs, which had actual knowledge of the '520 Patent and/or was willfully blind to the existence of the '520 Patent as set forth in the allegations above.

41. Indeed, in Kickstarter's own Guidelines as to "Project must fit Kickstarter's categories" at <http://www.kickstarter.com/help/guidelines?ref=footer>, under section 02, under "View Design and Technology requirements," Kickstarter is actively encouraging "hacker and maker" companies to make 3D printers for Kickstarter to sell, stating: "Not everything that involves design or technology is permitted on Kickstarter. While there is some subjectivity in these rules, we've adopted them to maintain our focus on creative projects: • D.I.Y. We love projects from the hacker and maker communities (weekend experiments, 3D printers, CNC machines) and projects that are open source. Software projects should be run by the developers themselves."

42. Upon information and belief, Kickstarter contributes to the infringement of the '520 Patent by offering to sell and selling within the United States the Form 1 3D printer which is an apparatus for use in practicing patented processes of the '520 Patent, constituting a material part of the invention, knowing the same to be especially made or especially adapted for use in an infringement of the '520 Patent, and the Form 1 3D Printer is not a staple article or commodity of commerce suitable for substantial noninfringing use.

43. Upon information and belief, Kickstarter knowingly or with willful blindness induced and continues to induce infringement and possessed specific intent to encourage

another's infringement by, or was willfully blind as to the '520 Patent and with respect to, its activities and Formlabs' activities described above.

44. The foregoing acts of patent infringement by Kickstarter has caused, and unless enjoined by this Court, will continue to cause, immediate and irreparable injury and damage to 3D Systems, and 3D Systems has no adequate remedy at law.

**PRAYER FOR RELIEF**

WHEREFORE, 3D Systems prays for the following relief and an entry of judgment from this Court:

A. Holding that the '520 Patent was duly and legally issued, is valid, and is enforceable;

B. Holding that Formlabs and Kickstarter have directly infringed, contributorily infringed, and/or induced infringement of one or more of the claims of the '520 Patent;

C. Holding that Formlabs and Kickstarter have willfully infringed one or more claims of the '520 Patent;

D. Finding that this action is an "exceptional" case within the meaning of 35 U.S.C. § 285, and awarding 3D Systems its reasonable attorney fees and expenses;

E. Permanently enjoining Formlabs and Kickstarter and their respective officers, agents, servants, employees, attorneys, and those persons in active concert or participation with them who receive actual notice of the order from committing further acts of infringement;

F. Awarding damages to 3D Systems and trebling such damages under 35 U.S.C. § 284;

G. Awarding costs to 3D Systems; and

H. Such other relief as this Court deems necessary and just.

**JURY DEMAND**

Pursuant to Fed. R. Civ. P. 38(b), plaintiff 3D Systems hereby demands a trial by jury on all issues so triable.

Respectfully Submitted,

ATTORNEYS FOR PLAINTIFF,

Date: November 20, 2012

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