MIT spinoff spiffs up desktop 3-D printing with Form 1

September 27 2012, by Nancy Owano

(Phys.org)—Up to now, says a new company planning a price/quality upset in the 3-D printing market, people have been able to get affordable, low-end 3-D desktop printers but below the higher quality standards that professional designers seek. The company, Formlabs, says outright that "There are no low-cost 3D printers that meet the quality standards of the professional designer." They have an alternative to

expensive but advanced stereolithography devices, They have developed the Form 1, a desktop-sized machine that will be made available at a lower price point but will offer a high-resolution resin system that can produce professional-grade 3-D prints.

The creators have achieved features and capabilities that professionals would require. Their process can handle translucent parts and complex geometries. The build envelope volume, according to their specs, is 4.9 by 4.9 by 6.5. Creators who want something bigger can print multiple segments of a larger structure, allowing them to print as big as needed.

Formlabs, spun off last year from the MIT Media Lab, is a company led by a team of engineers and designers, David Cranor, Maxim Lobovsky, and Natan Linder. They have already attracted seed funding and are now going after Kickstarter for donations to launch into manufacturing phase.

Their key pitch is that, for rapid prototyping, 3-D printing capabilities are now in the form factor of a desktop printer, and at a lower cost. Using the printers, designers will be able to produce high quality presentation models that are suitable, for example, for small runs of production parts, or for models with enough detail for jewelry casting.

Formlabs has produced all the elements of a 3-D printing system—hardware, software, and resins. For hardware, a translucent orange box is on the top of the machine, to protect the acrylate photopolymer resin inside from UV rays, and designers can see their products being built in real time. The company's proprietary desktop software is custom-designed for the stereolithography process.

Where the project now stands: The team has reached a stage where they have fully functional prototype units. They said they have built and tested seven generations of prototypes, and they tested a production run

of alpha units. Now, they say, they are prepared to set up full-scale manufacturing. They hope to get the manufacturing financing from their new Kickstarter campaign.

Initial backers can pre-order Form 1, at the time of this writing, for under $3,000. As for the company's retail price, the answer is that they have not yet set an ongoing price. "Our Kickstarter supporters are definitely receiving special treatment for believing in what we do," they said.

More information: formlabs.com/
www.kickstarter.com/projects/f … fessional-3d-printer

via Wired

© 2012 Phys.org

Citation: MIT spinoff spiffs up desktop 3-D printing with Form 1 (2012, September 27) retrieved 25 April 2024 from https://phys.org/news/2012-09-mit-spinoff-spiffs-desktop-d.html

This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.