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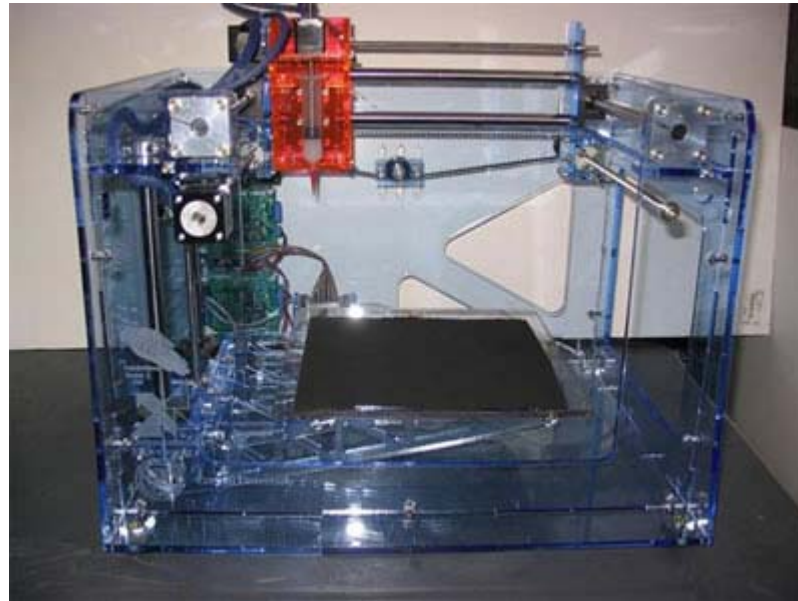
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Fab@Home 'Fabber' Freeform Fabricator

Science Fiction In the News
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coming true in today's world

By
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Technovelgy.com

The **Fab@Home freeform fabricator** may bring the rapid prototyping revolution right into the privacy of your own home - and for a fraction of the cost of industrial machines.



(Fab@Home home fabricator)

The basic function of the Fab@Home device is that it is able to make a quick copy of a three-dimensional object that has been specified with a CAD (Computer Aided Design) file. In other words, you use some software on your computer to specify exactly what it looks like and, just as a regular printer creates a copy of a drawing on paper, the Fab@Home device creates a three-dimensional copy using plastic or similar materials.

Scientists, engineers and designers have been using machines to do this same function; they called it stereolithography. These machines cost anywhere from \$20,000 to more than a million dollars.

It should also be pointed out that a few intrepid entrepreneurs are offering "3D printouts" - i.e., rapid prototyping - from their online stores. You upload the file and they print out your part and mail it back to you. You might just be able to look to your left and find some of these excellent businesses ;)

Curious to see how Fab@Home works? Take a look at this short video from Fab@Home:

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(Fab@Home Fabber Home Fabrication video)

Hod Lipson of Cornell University, along with his PhD student Evan Malone, launched the Fab@Home project last October hoping to bring this amazing "3D Printer" into the home.

"We are trying to get this technology into as many hands as possible," Malone said. "The kit is designed to be as simple as possible... It's probably the cheapest machine of this kind out there."

The kit can be assembled with a soldering iron and a couple of screwdrivers. It has been tested with silicone, plaster, play-doh - not to mention chocolate and icing. Multiple materials can be used; the software that comes with the kit prompts the user to provide the appropriate materials at the propitious moment.

Technovelgy readers should be familiar with this idea. [RepRap: Self-Replicating Rapid Prototyping](#), a self-replicating, rapid prototyping machine under development at the University of Bath in England was covered here almost two years ago. Dr. Adrian Bowyer, the innovator behind RepRap, is enthusiastic about all forms of rapid prototyping for the home hobbyist.

"Fab@Home is an interesting idea; it should be easy for anyone in the world to build," Bowyer says. "Once you've used one you never want to go back, it's liberating and enormously fun."

He also points out that the CAD designs that are used to guide Fab@Home machines are basically just software files, and are easily traded and swapped between users. His own RepRap software is itself open-source.

Read more about [Malone and Lipson's home fabricator](#) as well as [Bowyer's RepRap rapid prototyping](#), not to mention the [Fab@Home](#) website. If you recognize the name "Hod Lipson" you are probably thinking about several other extremely cool robotic projects:

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