

## Forget 3D, say hello to 4D

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Leave it to MIT to come out with 4D printing, just as 3D printing seems to be really hitting its stride. They can't just leave well enough alone, can they? We've talked a little bit about the potential of 3D printing and the pretty amazing things they can do, so now we're moving on to 4D.

While the human eye can't technically ["see" the 4<sup>th</sup> dimension](#) [1], in this case, we're just talking about a 3D design with the potential for "embedded transformation." So, we're talking about the possibility of robotics without the traditional mechanics.

Researchers used a software platform called Cyborg—from Autodesk Research—which "allows for simulated self-assembly and programmable materials as well as optimization for design constraints and joint folding," according to the Skylar Tibbits, a lecturer at [MIT's Department of Architecture](#). [2]

The researchers then collaborated with 3D printing company Stratasys to develop a unique material that reacts when placed in water. The material was made by combining two polymers: one which expands in water and one that remains rigid. When combined, they create a material that takes a predetermined shape and then becomes rigid in the water.

[4D Printing: Cube Self-Folding Strand](#) [3] from [Skylar Tibbits](#) [4] on [Vimeo](#) [5].

The project, officially called 4D printing, was the result of a collaboration between Stratasys' Education, R&D departments and MIT's Self-Assembly Lab.

In my mind, I'd like to be cynically cool about the possibility of 4D printing and view it with the skeptical eye of a professional tech writer, but it's too interesting of an idea to not be excited about the potential. Obviously this is just the beginning—and like most new technology has crazy potential for becoming what causes the end of the human race—but it's just mesmerizing to watch the transformation.

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**Is this cool technology or the end of the human race? Leave it in the comments.**

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### **Links:**

[1] <http://science.howstuffworks.com/science-vs-myth/everyday-myths/see-the-fourth-dimension.htm>

[2] [http://www.sjet.us/MIT\\_4D%20PRINTING.html](http://www.sjet.us/MIT_4D%20PRINTING.html)

[3] <http://vimeo.com/58840897>

[4] <http://vimeo.com/user1791262>

[5] <http://vimeo.com>