



NEW MATTER FOR THE MASSES

Imagine you have an idea for a new object—say, a custom phone case that perfectly molds to your hand or a cupholder that attaches to your laptop. Then, an hour later, a tangible plastic version of that item materializes just a few feet away, right in your living room. This scenario might sound a bit futuristic, but New Matter, a company founded by Caltech alum Steve Schell (BS '01), is determined to make affordable, at-home 3-D printing a reality in the present.

Schell was introduced to 3-D printing—a process that uses melted plastic to “print” three-dimensional objects—as a way to make quick industrial prototypes in his first job after graduating from Caltech with a degree in mechanical engineering. The technology has been gaining popularity in recent years, but consumer 3-D printers cost over \$1,000 and require computer-programming knowledge to turn an idea into an object.

To reduce these barriers, Schell and his colleagues at New Matter came up with the MOD-t printer. By decreasing the number of components and moving parts, the company was able to dramatically cut costs; the MOD-t printer is now available for preorder from the company's website for only \$279. The printer also features user-friendly software and a marketplace where programming novices can buy and print premade designs from more experienced users.

Although at-home 3-D printing is often associated with making jewelry or decorative items, Schell says that it could also be used for more practical tasks—like making a replacement part for your dishwasher. He says the MOD-t printers should start shipping to homes in the spring of 2015. —JSC