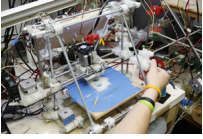


## RepRap machine makes itself

Written by VIK OLLIVER

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A free printer exists which can reproduce itself and it is called the RepRap. RepRap, in summary, is a project to create an open-source self-copying 3D printer.

Sites like Thingiverse provide the free models and applications like Skeinforge turn them into the G Code that the RepRap understands. All of it is under what is called an Open Source licence, like Firefox and the Linux Operating System that I use instead of Windows.

In the early experiments, I motorised a \$2 Shop glue gun with Meccano parts. A driven pinch-wheel pushed the glue stick in, and a fairly regular stream of glue came out the other end (until the glue gun overheated anyway). Next came a Meccano turntable and a screw-driven gearing mechanism that slowly lowered the turntable a tiny bit each time the turntable revolved. After many versions, in 2008 I finally hammered the last bits of the Child machine together, the parts having been made by the parent machine. I had taken them from Waitakere in Auckland to Bath University for the grand unveiling. It set to work immediately, making one of its own parts—an improved belt tensioner. I believe we celebrated a little.

**Read more in the April/May 2010 issue of The Shed**