

Challenge 11: Personal Fabrication

In ancient times (pre-1980 or so) the making of book or a high quality documents required skilled professionals and expensive equipment like printing presses and typesetters. Then came a revolution in which a new generation tools like word processors and laser printers suddenly allowed just about anyone to create high-quality printed material.

Today we're on the threshold of a similar revolution in the fabrication of physical objects. A new generation of "rapid prototyping" tools such as laser cutters and 3D printers is allowing a wide range of users to make their own things. These tools allow you to design an object on a computer and then "print out" the three dimensional object in a variety of materials.

In the *Engineering Studio* we are fortunate to have three such rapid prototyping tools: a laser cutter that uses a high power laser to quickly cut and or engrave plastic and wood parts with very high precision, a 3D printer that three dimensional objects of any shape out of plastic, and a CNC milling machine that can fabricate parts out of a variety of materials, including brass and aluminum.

In this challenge I'd like you to use a simple drawing program like *Adobe Illustrator* or *Google Draw* to design a a simple object for decorating the door the *Engineering Studio*. Then use the laser cutter to print out the part.