# 3D Printers

Here in MCAD's Digital Lab, we have a variety of 3D printers.

- Plastic 3D Printers
  - o Fortus F370 with a maximum build volume of 14" x 10" x 14".
  - Uprint SE plus with a maximum build volume of 8" x 8" x 6".
- Gypsum 3D Printers
  - Zcorp with a maximum build volume of 9" x 7" x 5".

#### **Before using the 3D Printers**

- You must have your finished file saved as an .stl on a thumb drive, Google Drive or emailed to yourself prior to your appointment.
- You must sign up for an appointment at least 24 hours in advance via the 3D Shop
   Appointments link, which can be found on the MCAD intranet homepage. Select Digital Lab
   from the dropdown menu.

#### Time & Cost

Time

3D printed files can often take many hours of machine time. If your file is ready, we can give you an accurate time estimate so you know how long it will take. If files are running smoothly at shop closing time, they will be allowed to continue overnight.

Cost

\$5 per cubic inch of material used (Plastic printers include both model and support material. Gypsum printer includes model material only.)

### Check in with a Shop Technician before starting a 3D print

#### Making Files

The 3D printers can print any 3D file as long as it is an .stl. This includes but is not limited to files modeled in Rhino, SolidWorks, Maya and Form Z. This may also include 3D files purchased on sites such as TurboSquid or Thingiverse.

Make sure your file is **correctly scaled** in inches for the 3D Printer!

Keep in mind that if your part is hollow or has holes, support material will be printed in all empty spaces and will dissolve away in the solvent bath.

If your file is ready, bring it to the shop and we can give you an estimate of the cost to print.

## Sending Files to the 3D Printer

- 1. Upload your file onto the PC desktop.
- 2. Make sure it is labeled with your first and last name.

You are now ready to check in with a Shop Technician. They will assist with sending your file to the 3D printer.