Carbon M2 3D Printer

Carbon M2

Tool Type: “3D printer”
Location: “Elings 2436”

Supervisor	Tool Lead
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Description: “3D printer”	

Manufacturer: “Carbon 3D M2 printer”

About

The Carbon 3D printer is located in Elings Hall 2436.

The Carbon M2 printers is a liquid resin stereolithographic 3D printers capable of producing high resolution accurate models out of a variety of materials. Liquid resin printers use a bath of reactive resin which is precisely cured using specific wavelengths of light. This printer is particularly well suited for thin high aspect ratio features and models requiring great surface accuracy.

Based on the material and application, some prints will benefit from post process UV curing to strengthen and harden the finished part. See part curing documentation in UV oven reference documentation.

Training Documentation

Detailed Specifications

Build Volume: 189 x 118 x 326 mm (L x W x H)
X,Y Accuracy: 75 microns
Layer Thickness: 25-100 microns
General Accuracy: up to +/- 70 µm +1 µm per mm dimension size
Production Repeatability: up to +/- 40 µm

Safety Concerns

The resin used in the Carbon 3D printer is considered hazardous. Gloves are to be warn when replacing or removing build plates, build tanks, and resin cartridges. Refer to SDS for disposal and health hazards.

Operating Proceduces

1. Any part to be cured needs to be washed in the FormWash with IPA BEFORE being placed in the form cure.

2. Supports can be removed before or after curing process.
3. Wait 30 minutes after washing to allow all remaining IPA to evaporate
4. Check the reference material for selected resin to determine ideal time and temperature for curing
5. Use the dial on the front of the FormCure to set time and temperature
6. Place part within the FormCure→ press start.

Reference Documentation

carbonresinguide.pdf
