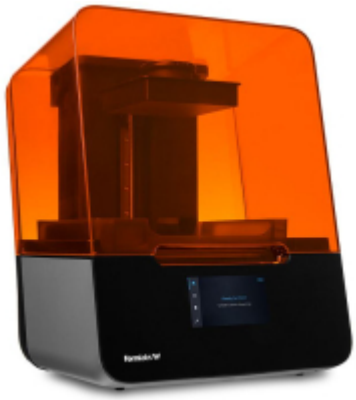
FormLabs Form3 3D Printers

Form 3

Tool Type: 3D printer
Location: Elings 3430
Description: Stereolithographic 3D printer
Manufacturer: Formlabs

About

The Form3 Printers are located in the Innovation Workshop on the countertop in 3430.

The FormLabs printers are 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 FormCure reference documentation.

Both the resin cartridges and build platforms are cross compatible with both the Form 2 as well as the newer Form 3 3D printers—however, the build tanks are not interchangeable. Types of resins are distributed between the Form 2 and Form 3 based on frequency used as well as which benefit from the low force SLA process employed by the Form 3 and should not be swapped without consultation with the staff.

Resin expires a year after the date printed on the cartridge.

Safety Concerns

The resin used in the FormLabs 3D printers 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.

Training Documentation

Form 2/3 SOP

Post-Processing

Form Wash Cleaner

FormCure UV Curing Station

Advanced Post-Processing Webinar from FormLabs

Glossy Top Coat Treatment

Detailed Specifications

Build Volume: 14.5 x 14.5 x 17.5 cm (L x W x H)
X,Y Accuracy: ~150 ish microns
Layer Thickness: 25-300 microns
Printable Materials: Standard resin (clear or available colors), Durable resin, Flexible resin

Reference Documentation

https://support.formlabs.com/s/article/Design-Specs?language=en_US

Guide to printing with clear resin

FormLabs Materials Guide

Design Specifications, such as minimum feature size, minimum overhang angle, etc.