Ultimaker3 Extended Dual FDM 3D Printer

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Tool Type: “FDM 3D printer”	
Location: “CNSI Innovations Workshop”	
Supervisor	**Tool Lead**
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Description: “FDM 3D Printer”	
Manufacturer: “Ultimaker”	

About

The Ultimaker 3 extended is a filament fed fusion deposition 3D printer capable of simultaneously printing two different plastics at once. Typically the printer is set up with ABS as a build material, and PVA as a solvable support material.

Detailed Specifications

Build Volume: 215 x 215 x 300 mm
Filament diameter: 2.85 mm
layer resolution: 60 to 600 microns depending on print head (see Specifications documentation page 11)
XYZ accuracy: 12.5, 12.5, 2.5 microns
Build plate temperature: 20-100 °C

Nozzle temperature: 80 - 100 °C

Safety Concerns

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Operating Procedures

1. Launch Cura version 4 (blue icon)
2. From connected printers, select IW-Ultimaker3
3. Select File → Open Files → Open desired project (.STL file type)
4. Using task bar on the left hand side, position model as desired
5. From print settings, select slice height, infill percentage, and support
6. Support can be generated using ether nozzle, typically nozzle one holds build material with nozzle two printing with dissolvable support material.
7. Setting can be fined tuned using the “Custom” option from print settings
8. Within custom settings, nozzle and build plate temps can be adjusted (build plate temps should be based off of build material)
9. Save the file from Cura on a thumb drive
10. Connect thumb drive to printer → select desired file → select print

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Reference Documentation

PVA Temps
Extruder: 220 C Bed: Whatever structural filament recommends

ABS Temps
Extruder: 230 C Bed: 100 C

quick_start_guide_ultimaker_3_v3.2.pdf
ultimaker_3_extended_specifications.pdf
um180129_ultimaker_3_manual_rb_v12_english.pdf
https://support.ultimaker.com/hc/en-us/articles/360012007119
pva_drying_recipe.pdf
ultimaker_filaments_-_sheet1.pdf

Training Documentation

failed_3d_print_procedure.pdf