

Green:
**USE AS
INSTRUCTED**

Ultimaker 2 Extended 3D Printer

ANU MakerSpace Safe Operating Procedure:

Low Risk Equipment - low incidence of minor burns, pinched fingers.
PPE: Closed toe shoes, loose clothing and hair must be restrained.

Pre-operational Checks

1. Make sure you have been shown how to use the CURA software for slicing your 3D models. Many issues with 3D printing begin with a poorly designed model or poor choice of printing parameters.
2. Ensure that "Ultimaker 2 Extended" is the selected machine from the machine menu.
3. Standard quality print profiles can be found on the desktop of the computers in the MakerSpace. Load them into CURA if you are unsure on advanced setting.
4. Ensure that a thin layer of glustick has been applied to the glass print bed. Wiping this with a lightly damp cloth will give an optimal level of adhesion of your model to the print bed.
5. PLA plastic prints between 190-220°C. This is set on the Ultimaker 2 extended not in the software, and typically set at 210°C. You shouldn't need to change this for standard prints.
6. Make sure you are familiar with how to change filament before doing so. Only use the thicker 2.85mm filament in the Ultimaker 2. If you are interested in using other plastics, please speak with a supervisor/mentor.

Operational Checks

7. Do not manually move the printhead or print bed using your hands.
8. Do not reach inside the printer while parts are moving. The motors are strong enough to cause injury if you trap a finger.
9. The nozzle is heated to temperatures of greater than 200°C. Never attempt to touch the nozzle while hot, or any plastic as it extrudes.
10. The print bed can be heated to above 60°C (PLA plastic), and 110°C (ABS) plastic. Do not touch the bed when hot.

Post-operational Checks

11. Wait until the bed has cooled to 30°C or less, before attempting to remove your model. At room temperature and with optimal glue applied, the part should easily separate from the bed. DO NOT use a sharp metal scraper as this can scratch the glass.
12. If you believe the nozzle has been clogged, and are unfamiliar with maintenance procedures, please don't print any further, and speak with a supervisor or technician of the space.
13. Beware of sharp edged tools (pliers, chisels and knives) when removing support material.
14. Discard any failed prints/support in the bins provided. Leave the print enclosure clean.