Ultimaker 3 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. Ask for assistance if unsure when using 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. In Cura, ensure that “Ultimaker 3” is the selected machine from the machine menu.
3. In Cura, ensure that you have selected the extruder and material appropriate to print cores engaged on the machine. (AA: PLA, ABS / BB:PVA Only)
4. Only use proprietary 2.85mm filament in the Ultimaker 3.
5. If you are interested in using other plastics, speak with a supervisor/mentor.
6. 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.

**Operational Checks**
7. Watch your print until it has built at least 4mm successfully before leaving the printer unattended.
8. NEVER manually move the printhead or print bed using your hands.
9. Do not place fingers or tools inside the printer while parts are moving. The motors can cause pinch injuries.
10. Do not touch the nozzle or plastics while hot. The nozzle is heated to temperatures of greater than 200°C.
11. Do not touch the bed when hot. The print bed can be heated to above 60°C (PLA plastic), and 110°C (ABS) plastic.
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/mentor.

**Post-operational Checks**
13. Wait until the bed has cooled before attempting to remove your model. Waiting 5 mins after the build is complete ensures the part will easily separate from the bed.
14. DO NOT use a sharp metal scraper to remove your print as this can scratch the glass.
15. Beware of sharp edged tools (pliers, chisels and knives) when removing support material.
16. Discard any failed prints/support in the bins provided. Leave the print enclosure clean.