

This syllabus is intended to aid instructors in providing training for this tool, and for quick reference by existing users. It is not intended to teach you the tool by itself.

**1. Safety****1.1. PPE**

- None necessary during ordinary use.

**1.2. Risks**

- Burn from heated bed or hot-end
- Fire started due to heated bed or hot-end
- Body part or clothing caught in printer mechanism
- Hazardous gasses

**2. Startup checks**

- Filament loaded is expected type
- Bed and hotend can move freely
- Area around printer is clear
- Bed is clean and clear
- Correct nozzle is installed

**3. Usage****3.1. Starting the machine**

- The printer should be left powered on and passive. If it is not, check with [tools@edinburghhacklab.com](mailto:tools@edinburghhacklab.com) that it can be powered on safely.
- Wipe the bed down with isopropyl alcohol and blue roll. Do not touch the bed after this process has been completed.
- Select your file using the menu on the printer.
- Observe the printer begin the print. The first layer should always be watched in case of defects or malfunction.

**3.2. Stopping the machine**

- The printer should stop and cool normally when the print is finished.
- If the print must be cancelled, do so using the menu. Only cancel your own prints, or the prints of others with their express permission.
- If the printer begins sounding an alarm, press the `Reset` button on the control panel until it restarts.

**3.3. General**

- Keep your hands clear of the heated bed and hotend while prints are in progress to avoid pinching and burns.

**3.4. Materials**

- Only use the following materials from reputable sellers:
  - PLA (including matte PLA and PLA+)
  - PETG
  - TPU
- Do not use materials if:
  - they have inclusions, such as Glow-In-The-Dark, carbon fibre (CF), or glass fibre (GF)
  - they have previously caused clogs or jams in printers in the lab
- If in doubt, ask.

**3.5. Cleaning up**

- Remove your print and any skirt or purge lines from the bed.

**4. Maintenance****4.1. General**

- Contact [tools@edinburghhacklab.com](mailto:tools@edinburghhacklab.com) if you encounter any of the following:
  - repeated build failures with the same file, filament and failure mode
  - loud screeching or grinding sounds
  - alarms necessitating a printer reset

**5. Other**