Hazards/Risks	Control Measures
Exposure to Rotating or Moving Parts:	1. Users should confine long hair, loose clothing, head coverings or head scarves before using any 3D printing devices. 2. Once a printing job has been started, do not open the cover, defeat or override the interlock switch. If the interlock safety switch fails, do not use the printer; 3. Wear approved personal protective equipment (PPE) where required.
Slips, Trips, Falls and Abrasions: Can anyone using the plant or in the vicinity of the plant, slip, trip or fall due to the working environment or other factors? e.g. Poor housekeeping, slippery or uneven work surfaces, power cables across work areas causing injuries and abrasions?	1. Appropriate footwear must be worn.ie, shoes. Footwears such as slippers and slides are strictly prohibited. 2. Procedures in place for the disposal of all waste materials around all workspaces in the lab are to be performed.
Environmental: **Dust, Fumes and Vapours** Is it likely there will be airborne dust particles, toxic fumes or volatile vapours produced and therefore be present in the workspace?	1. 3D Printer equipment must regularly maintained to help minimise the risk of exposures to these hazards. In view of that, report to the lab instructor if the 3D printer has excess(waste) material in its printing workspace. 2. If fumes come out of the machine, please report to the lab instructor. 3. Sufficient natural ventilation is provided to the work area around the 3D Printer. 4. All approved personal protective equipment (PPE) is used where required.

Hazards/Risks	Control Measures
Electrical: Can workers be injured by electrical shock due to working near or contacting with damaged or poorly maintained live electrical conductors such as power outlets, extension leads, safety switches, starters and isolators or casual water on the floor near the equipment?	1. Visual checks should be made of the power leads, switches and plugs on the 3D Printer. Internal electrical wiring and/or switches should be isolated and guarded. 2. Users should never remove instrument covers in order to do repairs or modifications; the instrument's manufacturer should be contacted instead. 3. Users must always switch off a 3D printer and unplug it completely from the main power supply if equipment covers are to be removed.
Exposure: **Heat, Burns and Scalds** Could the operator be exposed to heated elements or hot surfaces, exposed flame, molten material or hot fluids likely to cause scalding or burning? **Toxic Gases, Fumes and Smoke (VOCs)** Is it likely that the operator or others nearby could be exposed to hazardous or toxic chemicals such as volatile gases or airborne particulates such as dusts, smoke and fumes?	1. Once a printing job has been started, do not open the cover, defeat or override the interlock switch. If the interlock safety switch fails, do not use the printer. 2. Maintain a distance from the 3D printer to minimize inhalation of VOCs and UFPs. 3. Choose a low-emitting filament (such as PLA) instead of styrene- and nylon-based filaments. 4. Use 3D printers only in well ventilated areas (at least 3-4 volume exchanges per hour), with no air-recirculation.