

Computer Aided Design

Equipment found in the CAD section of the Hackspace.

- [3D Printers](#)
 - [⚠ Risk assessment - 3D Printers](#)

3D Printers

Risk assessment - 3D Printers

Download link: [#204 - 3D Printers - 260903.pdf](#)

#	Identify Hazards	Risks	Who may be Harmed	Severity	Control Measures	Likelihood	Risk Rating
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1	Electricity	Electric shock	User	High	All electrical equipment should be checked for electrical safety prior to use. Equipment must not be used unless they have a PAT test label on. It is the users responsibility to do a visual check of the equipment. If any defects are found (i.e. cracked casing, defect in lead etc) the equipment is not to be used, to be quarantined, the safety officer informed, and a defect label attached. Induction covers inspection of equipment before usage.	Low	Med
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2	Misuse of equipment	Damage to user or equipment	User, Bystander	Low	Members are inducted into the correct use of the equipment and understand associated risks. Members found to be deliberately misusing equipment may have their use of the machine restricted or revoked altogether.	Low	Low
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3	Extruder hot end, heated build plate	Minor burn	User	Med	Do not touch the nozzle or print bed when the printer is powered on, or during cooldown after use. Nozzles should only be changed by authorised Members. The induction process specifies when and where the equipment is likely to be hot. A burn kit is available in the kitchen.	Med	Low
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4	Thermal runaway	Fire	User, Bystander	High	Printers have software and hardware mitigations to detect and manage thermal runaway. Fire extinguishers are available in the 3d printing room by the entrance to the woodworkin g room.	Low	Low
5	Use of plastic filament	Hazardous fumes, inhalation	User, Bystander	Low	We do not allow printing with plastics that produce hazardous fumes. Members are required to stop use if other space users have any breathing issues. Correct material usage is covered in induction.	Low	Low

6	Print head, printer gantry print bed	Trapping injuries from fast moving bits of the machine	User	Med	Printers will fail and stop movements before major injury occurs. Induction process covers not touching the equipment during operation.	Low	Low
7	Use of solvents (isopropyl alcohol and acetone) for bed cleaning	Hazardous Fume Inhalation, Skin Irritation	User, Bystander	Low	Members are required to immediately stop usage if other members nearby experience breathing issues. Correct use is included in induction, refer to COSHH information.	Med	Low

8	Moving and handling filament	Back injury, injury from falling items (<2.5KG)	User, bystander	Med	Members are required to use the stepladder (near the front door) to access the shelves containing filament. Do not reach over other people to retrieve filament - ask them to move out of the way.	Med	Low
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