

Workplace Safety & Health: Risk Assessment

Ref No: ACAD/WSH/2018/1

The Workplace Safety and Health (Risk Management) Regulations 2006, Action Provisions item 3(1) states 'In every workplace, the employer, self-employed person and principal shall conduct a risk assessment in relation to the safety and health risks posed to any person who may be affected by his undertaking in the workplace'.

Assessment Information

Created By:	Henry Kwong	Approving Department:	ACAD
Facility/Location: *	T1442 - Fablab @T14	Risk Assessment Date: (dd/mm/yyyy) *	11/6/2018
Conducted Collectively By: *	Henry Kwong; Steven Chew Lai Keat; Chan Chee Hong	Non-SP Staff:	-
Last Review Date: (dd/mm/yyyy)	11/6/2018	Next Review Date:	11/7/2021
Vettors to be Notified: *	Chan Chee Hong	Approver: *	Sudhir K Jhajharia
Remarks (if any):	New RA	Send Notification To:	
Attachment(s):			

Risks

HAZARD IDENTIFICATION				RISK CONTROL					
No.	Activity	Hazards	Risks	Control Measures	Severity	Likelihood	Risk Level	Additional Control	Action Officer, Designation (Follow-Up Date)
1	3D Printing Work	Contact with heating element	Burn to hand	1) Staff conducts safety briefing 2) Displayed safety warning sign 3) Use equipment guarding shield	Moderate (3)	Rare (1)	Low (3)	-	-
2	Computer work - Interfacing	Short-circuited of electronic / electrical circuitry	Electric shock	1) Students must wear proper covered footwear 2) Lab installed with circuit breaker 3) Students must check all connections are in proper order before power up supply	Moderate (3)	Remote (2)	Medium (6)	Continuous monitoring of work activity	SP Staff, Lecturer / TSO, 11/6/2018
3	Computer work - Software	Strain due to prolonged computer	Stress and strain to the musculoskeletal	1) Correct body working posture 2) Students do	Moderate (3)	Rare (1)	Low (3)	-	-

	application	usage	system	stretching exercise 3) Take regular short break interval					
4	Computer work - Software application	Strain due to prolonged computer usage	Eyestrain	1) Good workplace lighting 2) Take regular eye rest interval	Moderate (3)	Rare (1)	Low (3)	-	-
5	Cutting - Component	Strike by "flying" component lead	Eye injury	Point component lead downward & away from eye when cutting	Moderate (3)	Rare (1)	Low (3)	-	-
6	Cutting of materials	Incorrect method of using cutter equipment	Cut to hand	1) Staff conducts safety briefing 2) Applying correct method of using equipment 3) Displayed safety warning sign	Moderate (3)	Rare (1)	Low (3)	-	-
7	Cutting of materials	Incorrect method of using hand tools	Cut to hand	1) Staff conducts safety briefing 2) Applying correct method of using hand tools	Moderate (3)	Remote (2)	Medium (6)	Continuous monitoring of work activity	SP Staff, Lecturer / TSO, 11/6/2018
8	Drilling Work	Strike by "flying" fragments	Eye injury	1) Goggle must be worn when drilling 2) Display safety warning sign	Moderate (3)	Remote (2)	Medium (6)	Continuous monitoring of work activity	SP Staff, Lecturer / TSO, 11/6/2018
9	Drilling Work	Spinning of work-piece	Cut to hand	1) Use vice to secure work-piece safely 2) Know STOP button location 3) Displayed safety warning sign	Moderate (3)	Remote (2)	Medium (6)	Continuous monitoring of work activity	SP Staff, Lecturer / TSO, 11/6/2018
10	Drilling Work	Entanglement to clothing	Bodily injury	1) Student must wear appropriate clothing 2) Know STOP button location 3) Displayed safety warning sign	Moderate (3)	Remote (2)	Medium (6)	Continuous monitoring of work activity	SP Staff, Lecturer / TSO, 11/6/2018
11	Drilling Work	Entanglement to long hair	Bodily injury	1) Long hair must be properly tie and place in safe manner 2) Know STOP button location 3) Displayed safety warning sign	Moderate (3)	Remote (2)	Medium (6)	Continuous monitoring of work activity	SP Staff, Lecturer / TSO, 11/6/2018
12	Electronic work - Hardware assembly	Incorrect use of tools	Cut to hand	1) Staff conducts safety briefing 2) Use correct tools	Moderate (3)	Rare (1)	Low (3)	-	-

	assembly			tools					
13	Electronic work - Hardware assembly	Strike by falling objects e.g. hand tools	Foot injury	1) Students must wear proper covered footwear 2) Good housekeeping of workbench	Moderate (3)	Rare (1)	Low (3)	-	-
14	Electronic work - Hardware assembly	Mechanical moving parts	Bodily injury	1) Staff conducts safety briefing 2) Abide safety operating procedures 3) Trained students to operate equipment	Moderate (3)	Remote (2)	Medium (6)	Continuous monitoring of work activity	SP Staff, Lecturer / TSO, 11/6/2018
15	Electronic work - Testing	Incorrect use of equipment	Electric shock	1) Students must wear covered footwear 2) Students to abide by safety instructions in equipment's manual 3) Staff conducts safety briefing to students 4) Lab installed with circuit breaker 5) Trained students to operate equipment	Moderate (3)	Remote (2)	Medium (6)	Continuous monitoring of work activity	SP Staff, Lecturer / TSO, 11/6/2018
16	Equipment - Operation	Incorrect use of equipment	Electric shock	1) Students must wear proper covered footwear 2) Students to abide by safety instructions in equipment's manual 3) Staff conducts safety briefing 4) Lab installed with circuit breaker 3) Trained students to operate equipment	Moderate (3)	Remote (2)	Medium (6)	Continuous monitoring of work activity	SP Staff, Lecturer / TSO, 11/6/2018
17	Hot work	Contact with heating element	Burn to skin	1) Provision of safety gloves 2) Safety warning sign displayed 3) Operate by trained personnel	Moderate (3)	Rare (1)	Low (3)	-	-
18	Soldering work	Heated soldering iron at high temperature	Burn to skin	1) Use soldering iron stand 2) Safety briefing on soldering work	Moderate (3)	Remote (2)	Medium (6)	Continuous monitoring of work activity	SP Staff, Lecturer / TSO, 11/6/2018
19	Electrical	Short-circuit	Fire	1) Staff conducts	Moderate	Remote	Medium	Continuous	SP Staff,

	work - Battery connection	of battery terminals		safety briefing 2) All exposed battery terminals must be insulated/covered 3) All loose wires must be disconnected from the battery terminals 4) Fire extinguisher available in lab	(3)	(2)	(6)	monitoring of work activity	Lecturer / TSO, 11/6/2018
20	Electrical work - Battery charging	Overcharging of batteries	Fire	1) Staff conducts safety briefing 2) No unattended & overnight charging 3) Fire extinguisher available in lab 4) Use approved charger recommend by the vendor	Moderate (3)	Remote (2)	Medium (6)	Continuous monitoring of work activity	SP Staff, Lecturer / TSO, 11/6/2018
21	Manual Lifting	Lifting of heavy /bulky item	Back injury	1) Seek colleagues for help 2) Correct lifting posture 3) Use lifting device	Moderate (3)	Remote (2)	Medium (6)	Continuous monitoring of work activity	SP Staff, Lecturer / TSO, 11/6/2018
22	Movement in lab	Trip and fall	Bodily injury	Good house- keeping of workarea	Moderate (3)	Remote (2)	Medium (6)	Continuous monitoring of work activity	SP Staff, Lecturer / TSO, 11/6/2018

Audit Trail