



TAB BETWEEN FIELDS MAKING ENTRIES BY TYPING INTO THE GREY HIGHLIGHTED BOXES. WHEN CLICKED NUMERIC FIELDS OFFER DROP-DOWN SELECTIONS

PART 1 – ACTIVITY / TASK DESCRIPTION - Use additional sheets if necessary - Peer check must be by person familiar with the planned activity				
Location Math: [151] Monadelphous EECE Lab	Assessment Date 04/08/2025	Expiry Date (max. 5 years) 14/11/2025	Assessor Team 0-26	Peer checked by
Task / Activity / Project Title ELEC5550 Design Project – 2-Way Free-Space Optical Communication System				How many persons will be involved? 6
Description (alternatively, a separate METHOD STATEMENT or equivalent detailed description may be referenced from here if a copy is attached) See method statement document attached: Team0-26_MethodStatement_v1.0				
Workplace conditions (describe layout, access/egress, physical conditions [e.g. on a public thoroughfare, crowded room, outside enclosed by barrier], containment [e.g. ventilation, fume cupboards, safety cabinets, open bench-work] and other key factors impacting on the activity/ task). Workspace has a single exit point. The windows are on the far sides of classroom and it doesn't appear to be easily opened. Moreover, no emergency hammer was available. There is a locked storeroom on left hand corner and two accessible storerooms on right hand corner on entering the workspace. They connect to other classrooms. Powerpoints are situated approximately at every 2 meters along the walls with RCD protection (R22 mostly). Upon entry, the whiteboard is situated on the left hand side of the front wall. The TV is next to the whiteboard, positioned at the center of that same wall. The right hand side wall is an open space for the projector screen. The workspace is entirely carpetted. The escape route is well labelled and clear of any obstruction. The evacuation plan, fire extinguishers and fire hose are outside of the workspace. The workspace is well ventilated, but lacks the ability to adjust the vent flow direction and power. The workspace does not have an emergency stop power button. There is a hand sanitiser station before the entrance of the workspace. A phone is available to call for any emergency services, but it does not work. Fire detectors are installed on the ceiling. The closest available defibrillator is in the Physics building. The closest first aid kit is situated in the room 58.				
Related Documentation / Guidance (this may include referenced articles, legislation, standards or codes which must be specifically highlighted) Method Statement: Team0-26_MethodStatement_v1.0 SOPs (for equipment): Other:				

RISK CALCULATOR - when completing Part 2, refer to the variable definitions to determine Risk Rating and Control Strategies

CONSEQUENCES (the most probable outcome of exposure to the hazard)			C
Catastrophe	Multiple fatalities		100
Disaster	A fatality		50
Very serious	Permanent disability or ill health		25
Serious	Non-permanent injury or ill health		15
Important	Medical attention needed		5
Noticeable	Minor cuts, bruises, sickness		1

LIKELIHOOD (that an individual, being exposed to the hazard, will result in the identified consequence)		L
Almost certain	The most likely outcome if the event occurs	10
Likely	Not unusual and quite possible to occur	6
Unusual	Possible but doubtful	3
Remotely possible	A possible coincidence	1
Conceivable	Has never happened in years of exposure, but possible	0.5
Practically impossible	Not known to ever have happened anywhere	0.1

EXPOSURE (can be regularity of activity or a simultaneous, collective attendance)			E
REGULARITY			
Continuous	Many times daily	OR	
Frequent	Approximately once daily	OR	
Occasional	Once a week to once a month	OR	
Infrequent	Once a month to once a year	OR	
Rare	Has been known to occur	AND	
Unheard of	Not known to have occurred	AND	

ATTENDANCE		
A crowd of people all of whom will be exposed to the hazard (e.g. public event, theatre, cinema)		10
A crowd of people some of whom will be exposed to the hazard (e.g. public event, theatre, cinema)		5
A small group of people involved (e.g. classroom, lecture, laboratory, meeting)		3
Several people involved		2
A person carrying out a single task		1
A one-off task by one person		0.5

RISK SCORE C x L x E =	RISK RATING	CONTROL STRATEGIES (to mitigate risk from the identified hazard)
>600	VERY HIGH	<ul style="list-style-type: none">Immediate action required.Do not proceed with task/activity until control measures have been implemented.Notify Supervisor, Safety & Health Representative and Head of School.Arrange continuous review and monitoring.
>300 to 600	HIGH	<ul style="list-style-type: none">Consider not carrying out task/activity until control measures have been implemented as soon as practicable.Notify Supervisor and Safety & Health Representative.Action plan to reduce risk.Monitor every subsequent exposure in addition to any other regular monitoring regime.
>90 to 300	MEDIUM	<ul style="list-style-type: none">Implement immediate action to minimise potential for injuries.Notify Supervisor to organise remedial action before commencing activity.
90 or Less	LOW	<ul style="list-style-type: none">Required action to be agreed with Supervisor.Remedial action to be taken as soon as practicable and within a month.

PART 2 – IDENTIFY HAZARDS, ASSOCIATED RISK RATINGS AND CONTROL STRATEGIES

1. Pick out the hazards which are relevant for this task or activity.
2. Click entry fields for drop-down selection of inherent risk values for C, L and E.
3. In the comments box, describe when and where the hazard is present and other notes.
4. Specify the control measure type from the Hierarchy of Control (top right)
5. Under Control Measures give a description of the control to be implemented.
6. Click entry fields for drop-down selection of residual risk values for C, L and E.

Elimination..... EL **HIERARCHY OF CONTROL**
 Substitution..... SU
 Engineering..... EN Isolation.... IS Guarding.... GD
 Administrative... AD Training.... TR Inspection.... IN
 Personal Protective Equipment = PPE

IDENTIFIABLE HAZARDS(editable)	INHERENT RISK				COMMENTS (when and where hazard is present)	CTRL	CONTROL MEASURES	RESIDUAL RISK			
C	L	E	=	C				L	E	=	
GENERIC - associated with the activity											
Slip and trips	5	1	3	15 - L	Carpet less likely for slips, power cables for laptops might be present, table and chair leg	IN	Warn others and pay closer attention	5	0.5	3	7.5 - L
Sustaining cuts or abrasions	1	6	5	30 - L	Handling PCB components can lead to minor cuts	PPE	Wear gloves	1	0.5	5	2.5 - L
Burns	1	0.5	1	0.5 - L	Moderate burn from soldering iron, and minor burn from PCB components overheating.	PPE	Wear heat protection gloves	1	0.1	1	0.1 - L
Asphyxiation	5	1	3	15 - L	Smoke from components burning or soldering	EN	Maintain ventilation from exhaust fans	5	0.1	3	1.5 - L
ELECTRICAL											
High voltage equipment	50	0.5	1	!Syntax Error, ! - L	Unlikely to be in contact with any high voltage equipment. .	EL	All equipment should be enclosed/isolated to prevent contact	5	0.1	0.5	2.5 - L
240V equipment	50	1	3	!Syntax Error, ! - L	Hazard is present when plugging in equipment to power points. Unlikely to be exposed to 240V elsewhere.	EL	Power points equipped with RCD protection	5	0.1	0.5	2.5 - L
CHEMICALS OR SUBSTANCES											
Emissions	1	6	3	30 - L	Fumes from soldering. Workspace windows are not easily opened. Soldering with toxic materials (e.g. lead) - Sickness	PPE	Wear a mask when soldering and ensure proper ventilation.	1	1	3	3 - L
WORKING ENVIRONMENT											
OTHER HAZARDS											
Laser Radiation	25	1	3	75 - M	Class 1M laser will be used in the design and can lead to retina damage when looked under magnification.	AD/EN	EN - Limit laser to Class 1M AD – Keep clear from laser when testing	25	0.1	3	7.5 - L
	0	0	0	0 -				0	0	0	0 -
	0	0	0	0 -				0	0	0	0 -

PART 3 – IMPLEMENTATION / ESCALATION PLAN

I have reviewed this risk assessment and agree that the control measures will be implemented as described above.

If other than a one-off activity, monitoring and review of their effectiveness will be carried out and recorded every . (enter period)

NAME

SIGNATURE

DATE

SUPERVISOR: Head of School - Engineering

**HEAD OF SCHOOL, DIRECTOR, EQUIVALENT
or FORMALLY DELEGATED SIGNATORY:**

ANY SIGNATORY AUTHORITY MUST BE RECORDED AND ONLY DELEGATED TO COMPETENT PERSONS OR AN AUTHORISING COMMITTEE RETAIN RISK ASSESSMENTS FOR REFERENCE