MANCHESTER 1824

The University of Manchester

General Risk Assessment Form

Date: (1) 14/10/2022	Assessed by: (2) Abdul-Arham Rehman	Checked / Validated* by: Tim Echtermeyer	Location: (4) Working from home/computer cluster/ dry lab	Assessment ref no (5)	Review date: (6)
Task / premises: (7) Working at home, computer cluster or in dry lab to complete individual project: Design and construction of a bio-inspired tendon-driven robotic hand with soft robotic elements					

Activity (8)	Hazard (9)	Who might be harmed and how (10)	Existing measures to control risk (11)	Risk rating (12)	Result (13)
Manual soldering Creation of joints between wires or components using molten solder. The application requires the use of a hot (~370-420oC iron) usually mains powered.	Heat	User / Visitors / Occupants of neighbouring areas Minor burns to skin, fire	1. No soldering equipment should be left unattended while switched on and for a minute after switching off to allow to cool. 2. Anyone approaching soldering equipment should assume it is hot. 3. 0.11mm nitrile gloves can be worn to protect hands from spitting solder 4. Solder away from combustible and flammable material 5. When not in use, soldering irons must be stored in the stands provided. 6. Cold water or burn gel should be applied immediately to all soldering iron burns and first aider called to assist.	Low	A

Result : T = trivial, A = adequately controlled, N = not adequately controlled, action required, U = unknown risk

Activity (8)	Hazard (9)	Who might be harmed and how (10)	Existing measures to control risk (11)	Risk rating (12)	Result (13)
Use of equipment	Electricity	User and others in the area Can cause fire, burns or electric shock	1. User is trained and supervised until fully competent. 2. Visual inspection of equipment for obvious defects 3. Defective plugs, cables equipment etc reported for repair/replacement and taken out of use. 4. Check for PAT sticker is valid 5. Use equipment as per manufactures guide. 6. Sufficient power sockets provided to reduce need for extension cables. 7. Make sure wires and cables never make contact with liquid. 8. If faulty stop use immediately and report it to a lab technician. 9. Switch off and make safe after use.	Med	A

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Activity (8)	Hazard (9)	Who might be harmed and how (10)	Existing measures to control risk (11)	Risk rating (12)	Result (13)
Computer Use	Electricity: Electric shock, burns, fires, electrocution	All users working with computer workstations and electrically powered office equipment Personal injury – electric shock, electrocution and/or burns. Secondary injuries which may ensue	Electrical equipment is PAT tested regularly on a schedule. Tested items are labelled "Pass" and the expiry dated. Estates are responsible for PAT testing PC equipment in Estates managed PC Clusters. All users are advised not to interfere with plugs, cables or any device, especially when any equipment is connected to the power supply at induction. They are advised to report defective items to their manager/supervisor in the first instance. In PC clusters eating or drinking is not allowed to minimise the risk of spillage onto electrical equipment. Bottles of water should be kept closed when not in use and should be stored beneath desks to avoid spillage onto the equipment. All users receive, during the induction process, fire and evacuation awareness safety training and are asked to make themselves familiar with emergency procedures for the areas they visit. Personal emergency evacuation plans are in place as necessary for those requiring assistance.	Low	A

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Lone working during normal working hours	Lack of support in the event of a fire Fire, smoke inhalation, burns	Users of PC clusters and offices who are lone working. Confusion, becoming lost, delay in exiting in an emergency situation – smoke inhalation, burns, unconsciousness and death	The evacuation procedure for the buildings is part of induction; this includes fire action notices, evacuation notices, and routes out of building, types of exit mechanism, fire alarms (audible and visual) and assembly points. All users receive an induction at the start of their programme. The contact number for Security is on the rear of the swipe card, this information is highlighted in the building inductions and on signage placed on the door to the clusters. Phone number is 0161 306 9966 All occupants must leave the building as soon as they hear the fire alarm by their most direct fire exit to the assembly point, quickly and calmly and proceed to the nearest assembly point and telephone Security. During an evacuation, face coverings should be worn while transiting but distancing may be temporarily ignored, as the duration is very short. Once outside the building social distancing should be resumed.	Low	A
Use of display screen equipment (DSE)	Repeated / Prolonged or incorrect use	All users working with computer workstations. Repetitive strain injuries, neck and back pain, eye strain and/or fatigue	Provision of an adjustable chair, adjustable screen height, suitable and sufficient lighting is maintained in each area. DSE signage detailing advice for correct use of the chair, screen and seating position are posted in each PC cluster and on Staffnet. There is on-line DSE user set up information signposted during the induction process. Staff complete this as part of department safety induction. Staffnet provides Wellbeing advice regarding staying healthy and comfortable when using PCs and laptops. Various external web sites provide advice e.g. www.posturite.co.uk/mobile-device-accessories	Low	A

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Working from home	Stress / Wellbeing	Home working staff Psychosocial effects, Work / Life imbalance, Anxiety	1. Please refer to Stress Prevention and Management toolkit for policies and guidance 2. Please refer to new University guidance for Managing teams working from home 3. Please refer to Seven rules of home working published by AMBS 4. Regular contact meetings with manager and peers, Skype, Zoom, Phone 5. Define working hours, set a start & close daily routine, get dressed and prioritise your tasks. Manager / Employee consultation, wellbeing focused.	Low	A
Working from home	Fire	Staff Home Working Risk of burns, smoke inhalation, asphyxiation	1. In the event of a fire evacuate out of the building and call the fire brigade 2. All waste, including combustible waste, removed regularly. 3. Heaters located away from combustible materials and switched off when office is left unattended 4. Avoid daisy chaining and do not overload extension leads 5. Test smoke alarm routinely and replace batteries every 6-12 months Please refer to fire brigade Home Fire Safety and Smoke Alarms	Med	A
Working from home	High risk activities	Staff Home Working Personal injuries / accidents	1. Home working is restricted to the use of laptops, computers and low-power equipment which complies to < 42 Volts operation & < 3 Amps total current consumption and which cannot exceed > 40degC operational temperature 2. No practical hardware work must be undertaken which requires tools, power-tools, soldering or any other sources of physical or chemical hazard	Low	A

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Moving around home or computer clusters	Tripping or obstructions	Myself and others around Slips, trips and falls causing physical injury	1. Floors and walkways kept clear of items, e.g. boxes, packaging, equipment etc 2. Furniture is arranged such that movement of people and equipment are not restricted 3. Make sure all areas have good level of lighting 4. Reasonable standards of housekeeping maintained 5. Trailing cables positioned neatly away from walkways 6. Cabinet drawers and doors kept closed when not in use	Low	A

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