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| **SAFE WORK INSTRUCTION** | |
| **Electronics Activities with The Edge** | |
| Activity Authorisation / Supervision | This activity can be conducted with general supervision and does not require specific authorisation. |
| Description of the Activity | The Edge delivers a range of entry-level electronics activities to participants. These include practical, hands-on instruction in:   * Building basic circuits (solderless) * Basic introductions to passive components, micro controllers, sensors and actuators. * Basic introduction to soldering ( & desoldering) technique * Basic introduction to coding for micro controllers. |
| Tools, Equipment, Materials and Consumables | 1. Digital Media Lab or Fabrication Lab computers (iMac, MacPro or MacBook/ PC laptops provided by The Edge) 2. Android tablets/ iOS iPad and mobile devices provided by The Edge 3. Private laptop, tablet or mobile device. The use of private laptops and mobile devises is subject to the *Bring Your Own Device guidelines*. 4. Projectors / display devices provided by The Edge. 5. Cameras and or recording devices provided by The Edge. 6. Drawing stylus and tablets provided by The Edge.. 7. Lab standard audio playback system provided by The Edge. 8. Craft/ Utility Knife 9. Scissors 10. Dremel handheld rotatory tool 11. Soldering Iron 12. Side Cutters 13. Pliers 14. Precision Screwdrivers 15. Wire Stripper 16. Crimping tool 17. Bench Power Supply 18. Solder (non lead) 19. Wire 20. Heat Shrink 21. Heat gun 22. Rubber Insulation Matts 23. Batteries |
| Interim Safety Assessment (ISA) | An Interim Safety Assessment (ISA) must be completed and approved by a Program Coordinator before commencement of an activity when:   1. The activity will not be facilitated by an SLQ staff member or inducted contractor. 2. The activity will not be conducted in and around The Edge or on SLQ premises *(see SWI for Activities to be Conducted Off-site or in a Public Space).* 3. The activity requires the use of tools, equipment, materials or processes not detailed in Section 2 or 3. |
| Hazards associated with equipment /machinery/technique /process | Most activities in this skill area occupy a low risk profile with the majority of activities taking place in controlled environment of The Edge’s Basement Fabrication Lab.  The general risks associated with these standard activities include:   1. Trip, slip falls 2. Electric shock 3. Ergonomic & screen based work 4. Personal safety and 5. Communicable disease   Workers and participants are exposed to greater risks as a greater range of tools, processes and materials are employed. Risk of injury from the wider range of tools, processes and materials listed in Section 3 include:   1. Burns from solder, soldering iron, heat gun or hot parts. 2. Cuts abrasions and small crushing injuries from knives, pliers, cutters, screwdrivers and/or Dremel tool. 3. Lead poisoning (from leaded solder) or poisoning after exposure to other materials introduced into the activity by participants or released by damaged components. |
| Before Starting | 1. Check workspace for general tidiness. 2. Ensure all required equipment and materials are in the workspace and ready for use in the session. 3. Where possible re-route cables trailing across walkways. Use cable trays or gaff were unavoidable. 4. Consumption of food and drink in activity spaces is to be avoided where possible. Clear any spills immediately. 5. Encourage ergonomic work practices and encourage regular breaks. 6. Encourage good manual handling practices and provide appropriate equipment (trolleys, truck & straps for securing loads) to assist with larger loads. 7. Address interpersonal difficulties according the *Patron Responsible Behavior Policy* and seek assistance from VSOs or SLQ staff member on duty. 8. *VSO Daily Procedures* include daily wiping down of all tables, keyboards, mice and computer screens with antibacterial wipes. However if you have particular concerns do not hesitate to collect wipes from reception and rewipe these surfaces. 9. **A Hot Work Permit must be applied for and approved at the Cultural Precinct Security Office before commencing work with soldering irons or any process that will produce heat, smoke, sparks, steam, or dust.** 10. **Ensure all powered (240v+ corded) tools/ devices to be used in a workshop have a current tag test sticker.** |
| Personal protective equipment (PPE) to be used | 1. Appropriate clothing and foot-ware should be worn at all times during this activity. 2. Hearing and Eye protection will be required for the use of some tools and materials listed in Section 3. (Soldering Iron & Dremel) |
| Emergency procedures | 1. There are no special emergency procedures specific for this activity. In the event of an emergency notify VSO or SLQ staff member on duty and await instruction. 2. First aid kits are located at Reception, the Back of Lab 4, The Edge staff office, SLQ Reception and the Cultural Centre Security Office. 3. The Cultural Centre Security office phone number is 07 3840 7216. 4. All incidents, **including near misses**, are to be reported to VSO or staff member on duty. |
| Step by step procedures for task | 1. Only use tools for the job they have been designed for. (Eg using a screwdriver as a leaver, chisel or awl.) 2. Cutting tools (scissors, knives, dremel etc) will be pointed away from the body when in use and pointed down when being transported around the space. 3. Where possible ensure work is secured positively to the workbench before applying any force in the use of any of the following tools - screwdrivers, pliers, knives, dremel. 4. Wash hands after soldering or handling components. 5. Use Rubber mats on benches to avoid shorting out of electrical components. 6. Staff and Participants are not to introduce electrical/ electronic equipment or devices to an activity space that has not been deemed safe prior to the commencement of the activity. 7. **Participants and Staff are not to be exposed to any open or uncased 240v+ devices that have not been electrically isolated and or disabled.** |
| Clean-up procedures | 1. Participant benches will be cleaned down of any offcuts and all tools are to be returned to their place in the storeroom. |
| Waste disposal procedures | NA |
| Record keeping | NA |
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