**Risk Assessment Form**



| **Date:**  20/10/2021 | **Assessed by:**  Harry Moss | **Checked / Validated\* by:** | **Location:**  Sackville Street Building  MECD Engineering Building | **Assessment ref no**  AS\_Y3P\_001 | **Review date:** |
| --- | --- | --- | --- | --- | --- |
| **Task / premises:**  The circuit board soldering and testing in laboratories between Sackville and the new MECD Engineering building. Also applies for any other facilities to be used when code writing/programming is necessary. | | | | | |

| **Activity** | **Hazard** | **Who might be harmed and how** | **Existing measures to control risk** | **Risk rating (1-10)** | **Likelihood** |
| --- | --- | --- | --- | --- | --- |
| Circuit test | High voltage | Whoever is testing the circuit may be exposed to a potentially lethal voltage/current. | Ensure hands and surfaces are not wet during operation. Keep the circuitry well ventilated to prevent moisture from causing a short-circuit that could create a spark. | 8 | Low |
| Circuit test | Heat | Powerful DSP chips can get very hot when processing very intensive programs – a user may accidently touch one of these components. | Wear insulated, rubber safety gloves if there is a risk of a hot component when handling is necessary – otherwise, ensure touching of the chips is kept at a minimum. Encase the chip in a dedicated housing to reduce the likelihood of this occurring during chip operation. | 4 | Medium |
| Electrical equipment usage | Electric shock | Whoever is operating the equipment, could expose user to dangerous levels of current. | Ensure hands and surfaces are not wet during operation.  Ensure all equipment has been thoroughly safety checked with the relevant testing (PAT). | 7 | Low |
| Food and drink | Swallowing and choking on food. | Anyone eating in a lab might mistakenly choke on their food. | No food or drink to be consumed during a lab session. | 5 | Low |
| Computer usage | Eye strain | A programmer might have strained eyes from spending many hours sat at a computer screen. | Take frequent breaks (the recommendation is every 40 minutes) and stare at an object far away to prevent this from happening. | 3 | High |
| Computer usage | Wrist/finger strain | A programmer may develop this from constant typing/clicking over a longer period of time in a lab. | Take frequent breaks as specified above. Ensure computer is at a reasonable distance away so that to ensure the wrist/hand aren’t getting squashed from being too close to the user, or getting stretched excessively from the computer being too far away. | 3 | High |
| Computer usage | Back and neck pain | A programmer might develop this from being sat writing code for longer periods of time. | Take frequent breaks and stretch the body, including rotating the neck joint. Ensure the computer is at an optimum distance away such that the user isn’t hunched over when looking at the screen. | 3 | High |
| Handheld Soldering | Heat | Whoever is operating the soldering iron may accidently burn themselves when using it. | Ensure the iron is placed in its spring housing when not in use. Keep the iron away from any exposed skin during use, and wear insulated heat-resistant gloves during use. | 6 | High |
| Handheld Soldering | Fumes | Whoever is operating the soldering iron may inhale toxic fumes from expoxy/flux resin present on the PCB, causing internal damage. | Ensure the iron tip gets cleaned with a wet sponge after every usage. Keep the use of various chemicals on the PCB to a minimal when soldering/tinning is necessary. Wear a plasterers or other high grade building mask to filter out any toxic fumes that may be present. Avoid close contact between face and PCB being used. | 6 | Medium |