

**GENERAL RISK ASSESSMENT TEMPLATE**

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| **Work area / operation** | CB11.10.403 | | **Assessor’s name** | CLAUDIA | | | |
| **Other persons consulted** | MATTHEW CHUA | | | | **Date of safety assessment** | | 9/10/2024 |
| Subject Coordinator’s Name | Gavin Paul | Lab Supervisor’s Name | | | |  | |

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| **ACTIVITY**  - Describe hazardous activities related to the work area or operation. | **ASSOCIATED HAZARDS** | **INHERENT RISK**  - Harm that could occur from these hazards if controls fail or are not in place. | **EXISTING CONTROL MEASURES** | **PROPOSED CONTROL MEASURES**  - Proposed action to minimise risk to an acceptable level. | **RESIDUAL RISK LEVEL** (H,M,L) |
| Untied hair | **People** | Physical injury, loss of hair, broken robot | Minimal gaps in robot for hair to get stuck in. | Containing hair with a net or hair tie. | L |
| Leaving the robot arm unattended | **Plant & Equipment** | Potential to injure others, the robot could hit something in the surrounding environment and damage itself. | Emergency stop button. | Have marked boundaries of where only the robot can be, and nothing else in the environment such as tools/lamps etc that could accidentally be hit. | L |
| Electrical cables being mishandled | **Plant & Equipment**  **People** | Trip hazard, electrocution. | Cables have been checked by UTS. Cables aren’t spread out all on the floor | Only use weights that the robot can handle. Ensure this is checked before attempting to lift objects. Don’t put more than 3kg on the robot | L |
| Using robot code and variables that don’t match the real one. | **Plant & Equipment** | Physical damage to the robot. | Possibly some sort of compiler on the pi to ensure the settings are correct? | Run the code virtually and visually ensure everything is the same. | L |
| Consuming food and beverage around the robot | **Plant & Equipment** | Physical damage to the robot. | The lab’s rules of not eating or drinking. | Ensure no one else is eating or drinking near the robot. | L |
| Operating robot when tired or distracted | **Plant & Equipment**  **People** | Damage to the robot, and possibly yourself and any others within the vicinity of the robot. | Robot is made to be handled by humans, so it’s relatively safe and most likely won’t cause major harm. | Have frequent breaks. Don’t use the robot if you’re tired or distracted. | L |
| |  | | --- | | Handling cleaning chemicals |  |  | | --- | |  | | **Chemical & People** | Potential skin irritation, chemical burns, or damage to the robot due to spills. | Use of appropriate cleaning chemicals. Gloves available for protection. | Provide proper chemical handling instructions and ensure a spill kit is available. | L |
| Water and liquid spills in the kitchen environment | **Work Environment & People** | Increased risk of slipping or electrical hazards near the robot due to wet surfaces. | Monitor for spills during the cleaning process. Regular cleanup procedures in place. | Check for water buildup near electrical components. | M |

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| **Approval of assessment** | I am satisfied that the residual risk with existing controls is acceptable XYes ☐No  OR  I am satisfied that that the proposed controls will reduce risk to an acceptable level. XYes ☐No | Signature | **Matthew Chua, Claudia** | Date | 03/10/2024 |

**Guidance notes for documenting General Risk Assessments**

**ACTIVITY**

**Briefly describe this hazardous work activity -** E.g. Operating, Handling, Using … (Include names) of hazardous equipment, substances or materials used, and any quantities and concentrations of substance(s) or reaction products.

**ASSOCIATED HAZARDS**

**Plant & Equipment** – noise, vibration, moving parts (crushing, friction, stab, cut, shear), pressure vessels, lifts/hoists/cranes, sharps

**Manual Handling** – repetitive movements, lifting awkwardly, lifting heavy objects

**Work Environment** – moving objects, extremes in temperature, isolation, work at height, allergies to animal bedding, dander and fluids, risk of fire/explosion, slippery surfaces/trip hazards

**People** – potentially violent or volatile clients/interviewees

**Communicable Diseases** – exposure to bodily fluids/infectious materials, animal bites and scratches,

**Environmental** – emissions to atmosphere, discharge to soil and water bodies (including stormwater run-off), nuisance noise & odour, poor ventilation/air quality

**Radiation (non-ionizing)** – including lasers, microwaves or UV light

**Electrical** – plug-in equipment used in ‘hostile’ work environment, exposed conductors, high voltage equipment

**Pathogens** – dealings with pathogenic microorganisms such as bacteria, parasites, fungi or viruses

**GMOs** – dealings with genetically modified organisms

**Cytotoxins** – carcinogens, mutagens or teratogens

**Radiation (ionizing)** – Ionizing radiation source such as radioactive substance or radionuclide, or irradiating apparatus

**Chemical** – hazardous substances, dangerous goods, fumes, dust, compressed gas, hazardous waste

**INHERENT RISK**

Provide details of the harm that could be caused to people or the environment if something goes wrong.

For example: inhalation of fumes, laceration, injury to back, infection, burns to skin or eyes.

Think about what could happen if controls fail or are not in place.

**CONTROL MEASURES**

Note the existing and proposed actions to reduce risk to an acceptable level. Apply the “Hierarchy of Controls”, listed below, when deciding the best control measure to apply. Control types closer the top of the list are preferable.

1. Eliminate the hazard. For example: use a different less dangerous piece of equipment, fix faulty machinery, use safer materials or chemicals

2. Isolate the hazard from the people. Separate people from the danger. For example: use shielding, use lifting equipment or trolleys, remove dust or fumes with exhaust system, lock-out machinery.

3. Change the way the job is done. For example: change work practices, provide training, information and signs, develop work procedures.

4. Use personal protective equipment (PPE), noting specific PPE is required for each job. For example: respirator, hearing protection, gloves. Training and information is required for the use of PPE.

**RESIDUAL RISK LEVEL (H, M, L)**

Estimate risk taking into account the way the activity is run and control measures put in place. The level of risk can be determined by combining consequence and likelihood using the risk matrix from below. Residual risk should be reduced to a level acceptable by management.

**CONSEQUENCE OF HARM -** This is how bad it will be if something does go wrong e.g. the number of people that could be harmed, the severity of injury.

**LIKELIHOOD OF HARM** - Chance of harm occurring is affected by the duration of the activity and its frequency; the number of people doing the activity and the level of exposure to the hazard.

