

UTS SAFE WORK METHOD STATEMENT (SWMS)

1. FACULTY/SUBJECT			
Faculty/Subject title		41013 Industrial Robotics	
Subject supervisor/coordinator		Gavin Paul	
SWMS prepared by		Eliza Tam	

2. WORK ACTIVITY DESCRIPTION	
Describe the 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.	Working alongside two robotic arms behind a bar to serve drinks to patrons. Handling various liquids such as alcohols and mixers. Operating beer taps. Using shakers to mix drinks.

3. HAZARDS: Choose those hazard types that will need to have control measures in Section 4			
Work Environment <ul style="list-style-type: none"> Working in Remote Locations Working Outdoors/fieldwork Clinical/Industrial setting Poor ventilation/Air quality Temperature extremes Working at Height Slip/Trip/Fall hazards 	Plant <ul style="list-style-type: none"> Noise Vibration Working with compressed air Lifts Hoists or Cranes Moving parts (Crushing, friction, cut, stab, shear hazards) Pressure Vessels or Boilers 	Chemical <ul style="list-style-type: none"> Hazardous Chemicals use Skin/eye irritant Sensitiser Mutagen Carcinogen Toxic to reproduction Aquatic toxicity Toxic Corrosive Dangerous when wet 	Ergonomic/Manual Handling <ul style="list-style-type: none"> Repetitive or awkward movements Lifting heavy objects Over reaching Working above shoulder or below knee height Poor workstation set up
Electrical <ul style="list-style-type: none"> Plug in equipment High voltage Exposed wiring Exposed conductors 	Radiation <ul style="list-style-type: none"> Ionising Radiation Non-ionising radiation (Lasers, Microwaves, Ultraviolet light) 	Biological <ul style="list-style-type: none"> Sharps/Needles Cytotoxins Pathogens/infectious materials Infectious materials Communicable diseases Animal/insects Work with fungi/bact/viruses 	Psychosocial <ul style="list-style-type: none"> Aggressive or violent clients/students Working in isolation Working with timeframes Staffing issues

4. CONTROLS MEASURES: Choose those that apply for hazards identified		
Eliminate/Isolate/Substitute / Engineering Controls <ul style="list-style-type: none"> Remove hazard Restrict access Redesign equipment Guarding / Barriers / Fume Cupboard / exhaust Biosafety cabinet Use safer materials/substances Ventilation Regular maintenance of equipment Redesign of workspace / workflow 	Admin specific: Licenses/permits Work Methods <ul style="list-style-type: none"> Training Information or Instruction Licensing or certification of operators Test and tag electrical equipment Restricted access Regular breaks Task rotation Work in pairs Document Chemical risk assessment Ladder / Sling register 	Emergency Response Systems <ul style="list-style-type: none"> First aid kit Chemical spill kit Safety shower Eye wash station Emergency Stop button Remote Communication Mechanism

Other controls not listed

Security to monitor area

5. PPE REQUIRED (Tick those that apply) ☒



EYE PROTECTION



HEARING PROTECTION



CLOSED-IN FOOTWEAR MUST BE WORN



HAND PROTECTION



FACE SHIELD



PROTECTIVE CLOTHING



RESPIRATORY PROTECTION



LONG HAIR MUST BE CONTAINED



HEAD PROTECTION



6. EMERGENCY EQUIPMENT



EMERGENCY SHOWER



EMERGENCY SPILL KIT INSIDE



EMERGENCY EYEWASH



7. WORK ACTIVITY STEPS

BEFORE YOU START:

1. Make sure to be wearing the right PPE
2. Make sure work environment is clean and clear
3. Make sure that there is at least one other person working in the group
4. Run through the simulation to double-check the right robot movement

STEPS IN WORK ACTIVITY:

5. Turn on robot arms
6. Check that the robot arms are safe to work with (i.e. not broken)
7. Inform peers that the robots are going to start moving
8. Begin their program
9. Monitor the robot's movement through the program
10. Turn off the robot arms
11. Ensure cables are unplugged and put away neatly

EMERGENCY PROCEDURES:

12. Press emergency button
13. Notify security or dial 6 using the UTS internal phone

TRAINING REQUIRED:

14. How to work safely with the robots (using laptop and Raspberry Pi to control UR3 robot video)
15. Lab induction

8. SIGN OFF

PREPARED BY:	LAB SUPERVISOR	DATE: <u>7/10/23</u>
NAME: <u>ELIZA TAM</u>	NAME: <u>MICHAEL LEE</u>	REVIEW DATE: _____

Course Version: 3

**FEIT CB11 Mechatronics Lab Induction Certificate**

Name: Eliza Tam

Company Name: University of Technology Sydney

I.D. Number: 6558048

Induction Score for FEIT CB11 Mechatronics Lab Induction is 100.00%

ACKNOWLEDGEMENT - I acknowledge that I have personally read and understood the induction, successfully answered the questionnaire and agree to abide by all the requirements outlined in the induction.

Signed: _____

Date: _____

This Certificate is valid until: 21/02/2024

