Program Risk Assessment

Title: Vex Robotics	Authorized By:
	Page Number: 1 of 8

Risk Assessment prepared by: Liam Mudge

Date of Assessment: 24/03/2025

Activity Type: Normal Program

Reviewed by: : Albert Ferguson
Date of Review: 12/05/2025
Due for next review: March 2026

Location of Activity:	*HAZARDS*	*Control*
• BTS		•

Based on the Risk Assessment this activities level of risk is considered:	**VERY LOW**

Workflow

Students are introduced to the activities of the day then broken up into discreate groups to undertake the different sessions.
The activities include:

1hr session programming and controlling VEX EDR robotic Systems
Students code the robot to move in a controlled sequence and complete tasks.

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Composite Materials Workshop

Chemical Hazards

Are there any chemical hazards involved with this activity? If YES, please answer the following form.	NO

Chemical Hazard Controls

• I have consulted the Victorian Department of Educations Guidance Sheet 3 Prohibited and Restricted Chemicals.	NA
• Banned and restricted hazardous chemicals will not be used?	NA
• No explosive reactants will be used or explosive products generated.	NA
• I understand the risks of the practical experiment and will undertake this practical in a 'wet area'?	NA
• I have obtained the safety data sheets for reactants and understand the accidental spillage or exposure, emergency response and first aid information?	NA
• Quantities of flammable reactants are kept to minimum and ignition sources are eliminated?	NA
• All hazardous chemicals and decanted products are labelled appropriately?	NA

If you answer 'False' to any of the above questions, do not carry out practical experiments until the matter has been resolved.

- I will not carry out the practical experiment if extreme or high chemical risks exist.
- I have considered all chemical exposure routes of the eyes, skin, inhalation, ingestion and injection to be used and generated.

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- I have located and linked all relevant MSDSs for Chemicals used in this activity.

Biological Hazards

Are there any chemical hazards involved with this activity? If YES, please answer the following form.	NO
Biological Hazard Controls	
• Recommended banned and restricted hazardous biological agents will not be used?	True
• Biological agents used are recommended for the age group undertaking the practical experiment?	True
• I understand the risks of the practical experiment and will undertake this practical in a 'wet area'?	True
• I have obtained relevant safety data sheets for agents being used and understand the accidental spillage or exposure, emergency response and first aid information?	True
• All hazardous agents and mediums are labelled appropriately?	True

If you answer 'False' to any of the above questions, do not carry out practical experiments until the matter has been resolved.

- I will not carry out the practical experiment if extreme or high biological risks exist.
- I have considered all chemical exposure routes of the eyes, skin, inhalation, ingestion, and injection to be used and generated.

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List the biological agents to be used and generated.
Identify key hazard information from safety data sheets, control measures to be undertaken and disposal requirements.

Risk Assessment Matrix

Assessing OHS Risks

Risk assessments in matters of Occupational Health and Safety* are based on 2 key factors:

- The severity of any injury/illness resulting from the hazard(s), and
- The likelihood that the injury/illness will actually occur.

**Assessment of risk level based on likely severity and probability of harm*

		LIKELIHOOD			
		Very Unlikely Could happen, but probably never will	**Unlikely** Could happen, but very rarely	**Likely** Could happen sometime	**Very likely** Could happen any time
SEVERITY	Death or permanent disability	**MEDIUM**	**HIGH**	**EXTREME**	**EXTREME**
	Long-term illness or serious injury	**LOW**	**MEDIUM**	**HIGH**	**EXTREME**
	Medical attention and short-term incapacity	**VERY LOW**	**LOW**	**MEDIUM**	**HIGH**
	First aid needed	**VERY LOW**	**VERY LOW**	**LOW**	**MEDIUM**

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EXPOSURE

Identify all groups who will be exposed to risks associated with this activity as well as any staff/specialist skills required to deliver this program e.g. Chocolate may require the assistance of some lab technician and personnel trained to operate the 3d printers/CNC machine.

- Program Staff
- Technical Staff
- Students
- Teachers

HAZARDS

- Electrical
- Slips/trips/falls
- Pinch/Shear

STEM Educator Notes	Reviewer Notes
• Robots move around on the floor and may pose a trip hazard to persons walking through the space. • The Gear mechanisms may pinch/shear if fingers are around moving mechanisms.	

Based on the Risk Assessment Matrix, identify the level of hazard	**Low**

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RISK CONTROLS

List major hazards identified and their control measures to be implemented.

Hazards	Control	Type	Notes
• Electrical • Slips/trips/falls • Pinch/Shear	• Inspection/testing • Clear/large enough workspace • Instruction, inductions, supervision	• Administration • Isolation	•

Notes: Students are verbally/visually instructed on safe and best practice for laboratory activities. The activity is demonstrated, students are then observed in completing procedure safely. All students are then supervised while conducting activities.

Based on the Risk Assessment this activities level of risk is considered.	**VERY LOW**

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Reference Documentation

List all reference documentation, HIRACs and MSDS forms applicable to this activity. If HIRAC does not already exist, the creation of a new HIRAC may be required.

HIRACs

- BTS_Electronics_HIRAC
-

MSDSs

-

Other Activity/Reference Material

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Activity Approval

This activity has been reviewed and determined that it can be carried out safely. Where risks have been identified appropriately mitigation measures will be implemented.

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