HAZARD MANAGEMENT – RISK ASSESSMENT

Date: 10/05/2023

SINGLE TASK

(This template or equivalent template can be used)

(If you have not completed a risk assessment before refer to the Handbook Chapter Appendix A for guidance)

RECORD THE HIGHEST RESIDUAL RISK RATING Ensure the appropriate level of authority to complete the activity can be evidenced. (e.g. a signature or formal approval attached)	☒ Low ☐ Medium ☐ High ☐ Very high

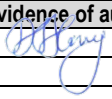
Title of the task (e.g. use of ……)	Use of the incline testing rig
Physical location(s) or operational unit	EXTERRES Lab Sand Pit (NG40-41), Robotics Lab (S226)
Names of workers involved in completing the risk assessment	Author: Luka Moran (a1726133) Other workers (if applicable)

Supervisors/person in control of the area/activity

- *Ensure that the control measures address the hazards identified for each step in the process for this task.*
- *Ensure that there is a system for retaining this Risk assessment. (See section 5.1 of the Handbook chapter)*
- *Ensure that workers who undertake this task have access to this Risk assessment, are provided with the relevant, information, instruction and training required before they undertake the task. (This includes any other guidance material (e.g. Safe operating procedures) where required by this Risk assessment.)*
- *Ensure that if there is a requirement for instruction (Level 2 proficiency) and/or training (Level 3 competency/qualification) the information is added to the Training Plan.*

Hazard identification: Stop and think. What could cause harm from start to finish?		**Assess the harm**	**What needs to be in place before you start?**	**Re-assess the level of risk**
Identify and list each hazard that is part of this work process	Record how/when the worker is exposed to the hazard (e.g. what is the route of exposure when completing the task)	Calculate the risk rating without controls in place (See descriptor table overleaf)	The measures you select must address the hazard, be selected in accordance with the Hierarchy of Control and be clear to the worker. (Refer to the Hierarchy of Control Appendix A page 6 for guidance.)	i.e. the residual risk rating after controls are in place
Lifting of heavy equipment	**The worker is required to lift the testing rig onto and off of a trolley for transportation as well as placing it in and removing it from the sand pit. Improper lifting technique and insufficient communication present a risk of injury.**	☐ Low ☒ Medium ☐ High ☐ Very high	**The testing rig should be lifted by at least two workers at all times. The testing rig should be oriented vertically on its larger end before lifting and placing it on the trolley. The load should be kept as close to the body as practical. Lifting should be done primarily with the legs. Workers should warm up before lifting if necessary. Workers should discuss the plan to lift the rig before doing so. Verbal communication should be used while lifting where necessary.**	☒ Low ☐ Medium ☐ High ☐ Very high
Sliding of heavy equipment	**The worker may be required to slide the testing rig on a surface to position it correctly. Improper consideration of the surroundings and improper push/pull technique present a risk for injury**	☐ Low ☒ Medium ☐ High ☐ Very high	**The testing rig should be moved by at least two workers at all times. The surrounding environment should be assessed prior to sliding the rig.**	☒ Low ☐ Medium ☐ High ☐ Very high

Relocating heavy equipment	**The worker needs to relocate the testing rig between two labs. Improper consideration of the path between them presents a possibility of dropping the rig or colliding with another object.**	☐ Low ☒ Medium ☐ High ☐ Very high	**Where possible, relocation should be done with the rig on a trolley. The path between the two locations should be planned and discussed with all involved parties prior to relocation.**	☒ Low ☐ Medium ☐ High ☐ Very high
Placing the robot on and removing it from the testing rig	**The worker is required to place the robot on and remove it from the testing rig**	☒ Low ☐ Medium ☐ High ☐ Very high	**Worker will ensure that the testing rig is stable before placing the robot on it. The robot will be slowly let go of to ensure it remains stable on the rig.**	☒ Low ☐ Medium ☐ High ☐ Very high
Conducting tests with the robot	**The worker will control the robot to perform tests**	☒ Low ☐ Medium ☐ High ☐ Very high	**Worker will ensure the various components of the robot are secured safely within its chassis. The path of the robot will be continuously monitored to ensure it does not fall off the edge of the rig.**	☒ Low ☐ Medium ☐ High ☐ Very high

Authorisation for staff and student related tasks			
Residual risk rating	**Authorisation**	**Name and signature (or attach evidence of authorisation)**	
Low & medium risk	Supervisor/Person in control of the area/activity	Assoc. Prof. David Harvey	
High risk	Head of School/Branch		
Very high risk	Executive Dean/Divisional Head		

Proof of hazard identification and risk assessment is required for this task

- ❑ File your completed Risk assessment as instructed by the Supervisor/Person in control of the area/activity
- ❑ Ensure there is a system for retaining formal Risk assessments in accordance with the State Records of SA, General disposal Schedule No 30 issued under the State Records Act 1997. (Contact the University's Records Management Office for further assistance/information if required.)

For activities with a Residual risk rating of high or very high risk

- ❑ The Head of School/Branch or Executive Dean/Divisional Head is to raise a risk under the University's Risk management framework through the University Risk Register.

DESCRIPTORS FOR ASSESSING THE LEVEL OF RISK

Likelihood Table

CATEGORY	DESCRIPTION
Almost certain	There is an expectation that an event/incident will occur.
Likely	There is an expectation that an event/incident **could occur** but not certain to occur.
Possible	This expectation lies somewhere in the midpoint between "could" and "improbable". May happen occasionally.
Unlikely	There is an expectation that an event/incident is doubtful or **improbable** to occur.
Rare	There is no expectation that the event/incident will occur.

Consequences Table

CATEGORY	DESCRIPTION
Severe	Injury resulting in death, permanent incapacity.
Major	Injury requiring extensive medical treatment (e.g. hospitalisation), or activities could result in a Notifiable occurrence.
Moderate	Injury requires formal medical treatment (e.g. hospital outpatient/doctors visit) Activities could result in an Improvement/Prohibition Notice.
Minor	Injury requires first aid treatment.
Negligible	Injury requires minor first aid (e.g. bandaid), or result in short term discomfort (e.g. bruise, headache, muscular aches), no medical treatment.

The level of risk will increase as the likelihood of harm and its severity increases										
Likelihood of exposure	**Consequences – level of seriousness of the injury following exposure to the hazard(s) -**									
	Negligible		**Minor**		**Moderate**		**Major**		**Severe**	
Almost certain	☐	**Medium**	☐	**High**	☐	**Very High**	☐	**Very High**	☐	**Very High**
Likely	☐	**Medium**	☐	**Medium**	☐	**High**	☐	**Very High**	☐	**Very High**
Possible	☐	**Low**	☐	**Medium**	☐	**High**	☐	**High**	☐	**Very High**
Unlikely	☐	**Low**	☐	**Low**	☐	**Medium**	☐	**Medium**	☐	**High**
Rare	☐	**Low**	☐	**Low**	☐	**Low**	☐	**Medium**	☐	**Medium**