

## Wireless Controlled Machine Operation Risk Assessment

Business Name:	ABN:	
Business Address:		
Contact Person:	Phone:	Email:

### THIS RISK ASSESSMENT IS APPROVED BY THE PCBU ON THIS PROJECT

Under the Work Health and Safety Regulation (WHS Regulation), a person conducting a business or undertaking (PCBU) is required to ensure that a RISK ASSESSMENT is prepared before the proposed work starts.

Full Name:		
Signature:	Title:	Date:

### CLIENT OR PRINCIPAL CONTRACTOR DETAILS

Client:	SCOPE OF WORKS
Project Name:	
Project Address:	
Project Manager:	
Contact Phone:	
Date Risk Assessment supplied to Project Manager:	

RISK MATRIX									
LIKELIHOOD	INSIGNIFICANT	MINOR	MODERATE	MAJOR	CATASTROPHIC	SCORE	ACTION	HIERARCHY OF CONTROLS	
ALMOST CERTAIN	3 HIGH	3 HIGH	4 ACUTE	4 ACUTE	4 ACUTE			<b>Elimination</b> Remove the hazard.	
LIKELY	2 MODERATE	3 HIGH	3 HIGH	4 ACUTE	4 ACUTE	4A ACUTE	DO NOT PROCEED	<b>Substitution</b> Replace the hazard.	
POSSIBLE	1 LOW	2 MODERATE	3 HIGH	4 ACUTE	4 ACUTE	3H HIGH	Review before work starts.	Isolation Isolate People from the hazard	
UNLIKELY	1 LOW	1 LOW	2 MODERATE	3 HIGH	4 ACUTE	2M MODERATE	Ensure control measures in place.	<b>Engineering</b> Isolate the hazard	
RARE	1 LOW	1 LOW	2 MODERATE	3 HIGH	3 HIGH	1L LOW	Monitor and keep records.	<b>Administrative</b> Change	
								<b>PPE</b>	
<b>Risk Rating &amp; Required Action:</b>								<b>Notes on Hierarchy of Controls:</b>	
4A Stop work. The risk is intolerable. Eliminate the hazard or redesign the activity before proceeding. A Safe Work Method Statement (SWMS) or higher-level authorisation is required.								Remember to apply controls in the preferred order shown by the coloured pyramid:	
3H Review and approve additional controls before task starts. Senior supervisor sign-off needed.								1. <b>Eliminate</b>	
2M Ensure all nominated controls are in place and effective. Proceed with caution; monitor conditions.								2. Substitute	
1L Proceed, following standard operating procedures. Monitor and keep records.								3. Isolate	
								4. Engineering	
								5. Administrative	
								6. PPE	
<b>Consequence Scale:</b>								Always document <b>why</b> a lower-order control is accepted if elimination or substitution is not reasonably practicable.	
Consequence	People (injury/illness)		Project / Assets		Compliance / Reputation				
Catastrophic	Fatality or permanent total disability		project shutdown		Significant regulator intervention; criminal prosecution				
Major	Serious injury/illness (hospital > 5 days)		critical delay		Improvement notice; major media coverage				
Moderate	Medical-treatment injury; lost-time > 1 day		moderate delay		Minor breach; adverse client comment				
Minor	First-aid only, no lost time		negligible delay		Isolated non-conformance				
Insignificant	No injury		no schedule impact		Deviation caught and corrected on site				
								<i>aligned with Safe Work Australia's Managing the risk of fatigue at work (2023) and ISO 45001:2018 clauses 6–8.</i>	

JOB STEP	POTENTIAL HAZARDS	IR	CONTROL MEASURES	RR
SPECIFIC WORK STEPS	HAZARDS THAT MAY ARISE	INITIAL RISK	SPECIFIC MEASURES TO BE PUT IN PLACE TO ELIMINATE OR CONTROL THE RISKS	RESIDUAL RISK
1. Preparation	Lack of training, Inadequate risk assessment	3H	<ul style="list-style-type: none"> <li>- Ensure all operators are trained and competent</li> <li>- Conduct thorough risk assessment prior to starting work</li> <li>- Update risk assessment based on site-specific conditions</li> <li>- Verify that all workers have read and understood the risk assessment</li> <li>- Conduct site induction for new workers</li> <li>- Check communication systems for operability</li> <li>- Ensure compliance with OHS legislation and guidelines</li> <li>- Develop an emergency response plan</li> <li>- Prepare safety equipment and ensure readiness</li> <li>- Identify and prepare evacuation routes</li> </ul>	2M
2. Equipment Inspection	Equipment malfunction, Unchecked wear and tear	3H	<ul style="list-style-type: none"> <li>- Conduct pre-use inspections on all equipment</li> <li>- Implement regular maintenance schedules</li> <li>- Repair worn components promptly</li> <li>- Have a certified technician verify machine functionality</li> <li>- Check wireless connections</li> <li>- Ensure spare parts are available on site</li> <li>- Document and report any equipment faults</li> <li>- Perform checks using an inspection checklist</li> <li>- Calibrate equipment as per manufacturer's guidelines</li> <li>- Train operators in identifying potential faults</li> </ul>	2M
3. Site Assessment	Uneven surfaces, Obstructions	3H	<ul style="list-style-type: none"> <li>- Conduct a detailed site survey for hazards</li> <li>- Clear all obstructions prior to operation</li> <li>- Ensure adequate lighting</li> <li>- Mark hazardous areas with warning signs</li> <li>- Level uneven surfaces where possible</li> <li>- Use barricades to protect workers from identified hazards</li> <li>- Ensure emergency exits are clearly marked and accessible</li> <li>- Keep aisles and exit paths clear</li> </ul>	2M

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			<ul style="list-style-type: none"> <li>- Implement signage to alert of low overhead clearance</li> <li>- Regularly review site conditions for changes</li> </ul>	
4. Operational Planning	Inadequate planning, Lack of coordination	3H	<ul style="list-style-type: none"> <li>- Conduct a pre-work meeting with all personnel involved</li> <li>- Develop a detailed work plan and timeline</li> <li>- Assign specific roles and responsibilities to each team member</li> <li>- Establish clear communication protocols and methods</li> <li>- Conduct a thorough site inspection and identify potential hazards</li> <li>- Obtain necessary permits and approvals from relevant authorities</li> <li>- Ensure all personnel are trained and qualified for the tasks</li> <li>- Implement safety measures and barriers to protect the work area</li> <li>- Monitor weather conditions and have a contingency plan for adverse weather</li> <li>- Establish a clear exit route and emergency procedures</li> <li>- Conduct a final safety check before starting work</li> </ul>	1L
5. Communication Protocols	Communication failure, Miscommunication	4A	<ul style="list-style-type: none"> <li>- Establish a clear communication protocol and methods</li> <li>- Assign a dedicated communication officer to manage all communications</li> <li>- Use standardized terminology and abbreviations</li> <li>- Conduct regular check-ins and status updates</li> <li>- Implement a backup communication method in case of primary method failure</li> <li>- Ensure all personnel understand the communication protocol</li> <li>- Establish a clear chain of command and reporting structure</li> <li>- Conduct a communication drill before starting work</li> <li>- Monitor communication effectiveness and make adjustments as needed</li> <li>- Establish a clear exit route and emergency procedures</li> <li>- Conduct a final safety check before starting work</li> </ul>	2M
6. Control System Verification	Control system error, Software failure	3H	<ul style="list-style-type: none"> <li>- Conduct a thorough review of the control system design and specifications</li> <li>- Perform a detailed software code review and testing</li> <li>- Implement a rigorous testing and validation process</li> <li>- Establish a clear process for identifying and reporting errors</li> <li>- Conduct a final safety check before starting work</li> <li>- Monitor system performance and make adjustments as needed</li> <li>- Establish a clear exit route and emergency procedures</li> <li>- Conduct a final safety check before starting work</li> </ul>	2M

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7. Safety Equipment	Failure to use PPE, Faulty safety gear	3H		2M
8. Operator Oversight	Lack of supervision, Fatigue	3H		2M
9. Emergency Procedures	Delayed emergency response, Unprepared workers	4A		2M

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10. Noise Levels	Hearing damage, Communication interference	3H		1L
11. Load Management	Overloading equipment, Load shift	3H		2M
12. Operational Monitoring	Undiagnosed faults, Operational deviation	3H		2M

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13. Environmental Controls	Exposure to elements, Environment pollution	3H		2M
14. Wireless Signal Interference	Signal loss, Cross-signal interference	3H		2M
15. Post-Operation Review	Inadequate debrief, Oversights in documentation	3H		1L

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SAMPLE



## EMERGENCY RESPONSE – CALL 000 FOR EMERGENCIES

Ensure to have an Emergency Management Plan in place as well as adequate numbers of trained first aid staff with easy access to fully stocked first aid kits, rescue equipment, material safety data sheets, adequate access to emergency communication equipment and fire-fighting equipment suitable for all classes of fire and ignition sources.

## LEGISLATIVE REFERENCES

RELEVANT LEGISLATION AND CODES OF PRACTICE. DELETE THE LEGISLATIVE REFERENCES IF ANY STATE THAT ARE NOT APPLICABLE

### Queensland & Australian Capital Territory

Work Health and Safety Act 2011

Work Health and Safety Regulations 2011

Legislation QLD: <https://www.worksafe.qld.gov.au/laws-and-compliance/work-health-and-safety-laws>

Codes of Practice QLD: <https://www.worksafe.qld.gov.au/laws-and-compliance/codes-of-practice>

Legislation ACT: <https://www.worksafe.act.gov.au/laws-and-compliance/acts-and-regulations>

Codes of Practice ACT: <https://www.worksafe.act.gov.au/laws-and-compliance/codes-of-practice>

### Victoria

Occupational Health and Safety Act 2004

Occupational Health and Safety Regulations 2017

Legislation VIC: <https://www.worksafe.vic.gov.au/occupational-health-and-safety-act-and-regulations>

Codes of Practice VIC: <https://www.worksafe.vic.gov.au/compliance-codes-and-codes-practice>

### New South Wales

Work Health and Safety Act 2011

Work Health and Safety Regulations 2017

Legislation NSW: <https://www.safework.nsw.gov.au/legal-obligations/legislation>

Codes of Practice NSW: <https://www.safework.nsw.gov.au/resource-library/list-codes-of-practice>

### Western Australia

Work Health and Safety Act 2020

Work Health and Safety Regulations 2022

Legislation Western Australia: <https://www.commerce.wa.gov.au/worksafe/legislation>

Codes of Practice WA: <https://www.commerce.wa.gov.au/worksafe/codes-practice>

### Northern Territory

Work Health and Safety (National Uniform Legislation) Act 2011

Work Health and Safety (National Uniform Legislation) Regulations 2011

Legislation NT: <https://worksafe.nt.gov.au/laws-and-compliance/workplace-safety-laws>

Codes of Practice NT: <https://worksafe.nt.gov.au/laws-and-compliance/codes-of-practice>

### Safe Work Australia Links

Law and Regulation (All States): <https://www.safeworkaustralia.gov.au/law-and-regulation>

Model Codes of Practice: <https://www.safeworkaustralia.gov.au/resources-publications/model-codes-of-practice>

### Model Codes of Practice

- Managing noise and preventing hearing loss at work
- Confined spaces
- Labelling of workplace hazardous chemicals
- Managing risks of hazardous chemicals in the workplace
- Welding processes
- First aid in the workplace
- Managing the risk of falls at workplaces
- Hazardous manual tasks
- Managing the risk of falls in housing construction
- Managing electrical risks in the workplace
- Demolition work
- Excavation work
- Work health and safety consultation, cooperation and coordination
- Managing the work environment and facilities
- How to manage work health and safety risks
- Managing risks of plant in the workplace
- Construction work

### South Australia

Work Health and Safety Act 2012 (SA)

Work Health and Safety Regulations 2012 (SA)

Legislation for SA: <https://www.safework.sa.gov.au/resources/legislation>

Codes of Practice for SA: <https://www.safework.sa.gov.au/workplaces/codes-of-practice#COPs>

### Tasmania

Work Health and Safety Act 2012

Work Health and Safety (Transitional and Consequential Provisions) Act 2012

Work Health and Safety Regulations 2012

Work Health and Safety (Transitional) Regulations 2012

Legislation for TAS: <https://worksafe.tas.gov.au/topics/laws-and-compliance/acts-and-regulations>

Codes of Practice for TAS: <https://worksafe.tas.gov.au/topics/laws-and-compliance/codes-of-practice>

Details of permits, licenses or access required by regulatory bodies (add or delete as required):

- Permits from local council
- Authorisation to commence work
- Any required documents.