

<b>Date:</b> 27 – 29 July 2018	<b>Faculty/Dept:</b> Science & Engineering	<b>Assessment completed by:</b> Wynonah Bush	<b>Contact No:</b> M: 0451 020 645
<b>What is the Event and the Event purpose?</b>  <ul style="list-style-type: none"> <li>• <i>FIRST</i> Robotics Competition – Duel Down Under</li> <li>• International robotics tournament</li> </ul>		<b>Location where Event is being conducted:</b> Macquarie University Eastern Road; North Ryde 2109 (02) 9850 9509	
<b>What are the Event Conditions?</b> Public event, free entry, multiple access points.			
<b>Guests attending</b> (disabled, elderly – approx breakdown internal/external)  75 volunteers 300 high school students, parents & mentors 100 Spectators Children under 16 General public	<b>Equipment</b>  Chairs, tables Laptops Power cords Robots A/V Competition Field Machine Shop	<b>Environment</b>  Atrium Hallways Classrooms Outdoors	<b>Other (Contractors?)</b>  Stadium Seating Supplier (Day prior and Day after event for Bump out/bump in)

# Event Risk Management Plan

## Risk Assessment Register

Event: FIRST Robotics Competition

Name of Event: FRC Duel Down Under

Date: 27-29 July 2018

Version: 1

Prepared by: Wynonah Bush

Reviewed by: Luan Heimlich

Ref #	Category	Initial Risk	Consequences of Event Happening		Risk Control Plan	Assessment of Risks with Controls		Level of Risk	Risk Priority
			Consequence	Likelihood		Consequence	Likelihood		
1	Location/environment	N/A	4	D	- Macquarie University	4	E	LOW	LOW
2	Economic	N/A	2	D	-Fully funded by FIRST Australia Free event to public.	1	D	VERY LOW	LOW
3	Weather	Indoor Venue	2	E	- Security trained FR onsite - Non-slip mats -Slippery when wet sign	1	E	VERY LOW	VERY LOW
4	Competitors	N/A	1	A	none	1	A	MEDIUM	LOW
5	Administration	N/A	2	D	- Communications strategy - Volunteers room and briefing - Preparation of rosters for staff and students	1	E	VERY LOW	LOW
6	Financial	N/A	3	D	- Budget record accurately maintained	1	D	VERY LOW	VERY LOW
7	Marketing and PR	N/A	3	D	- Macquarie Marketing Team	1	D	LOW	LOW
8	Information flow	N/A	2	D	- Communications strategy -volunteers room - Preparation of rosters for staff and students - Briefing conducted Supervisors for each area	1	E	VERY LOW	LOW

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			Consequence	Likelihood		Consequence	Likelihood		
9	Health and Safety	Tables or equipment collapsing	3	C	- Volunteers to check set up - Competition fields secured	3	D	MEDIUM	LOW
10	Security	Equipment stolen or damaged	3	B	- Parents and mentors responsible for equipment	2	C	MEDIUM	MEDIUM
11	Crowd Management	Overcrowding venue Sufficient entrance and egress of each advising venue	3	B	- Security & Volunteers to assist with crowd control - Entrances and exits and pathways comply with OH&S and accessibility standards - Careful space planning with traffic flow considered in event plan design	2	C	LOW	LOW
12	Arrival/departure	Entrances and exits are clear of any obstructions Clear travel routes	2	C	- Way finding signage - Maps located at various locations on sidewalks plus PDF on event site.	2	C	LOW	LOW

# Event Risk Management Plan

## Risk Treatment Schedule and Plan

Name of Event: FRC Duel Down Under

Date: 27-29 July 2018

Version: 1

Prepared by: Wynonah Bush

Reviewed by: Luan Heimlich

Ref #	Risk	Possible Treatment Options	Preferred Options	Risk Rating BEFORE Treatment	Risk Rating AFTER Treatment	Cost / Benefit Analysis A = Accept R = Reject	Person Responsible for Implementation	Timetable	Monitoring
1	Guests lost in navigating to venue	<ul style="list-style-type: none"> <li>Information, instructions, public transport &amp; map provided to guests prior to event</li> <li>Signage in place on event days</li> <li>Security officers at MQU</li> <li>Parking arrangements made &amp; information provided to guests</li> <li>Volunteers clearly identified with bright coloured t-shirts</li> </ul>	<ul style="list-style-type: none"> <li>Information, instructions, public transport &amp; map provided to guests prior to event</li> <li>Signage in place on event days</li> <li>Security officers at MQU</li> <li>Parking arrangements made &amp; information provided to guests</li> <li>Volunteers clearly identified with bright coloured t-shirts</li> </ul>			A	Security service Event organiser/s Volunteers	Immediate and ongoing	<ul style="list-style-type: none"> <li>Event staff and security service</li> </ul>
2	Tripping over	<ul style="list-style-type: none"> <li>Venue checked prior to commencements of event for trip hazards</li> <li>Safety tape and gaffer tape used to secure loose leads.</li> <li>Adequate lighting provided for guests</li> </ul>	1	1 + C = L (Low)	1 + C = L (Low)	A	Luan Heimlich Wynonah Bush Event Staff Security	Immediate and ongoing as required.	Event staff to identify and rectify. Continuous monitoring required.

6	Child lost	<ul style="list-style-type: none"> <li>All students marked off on arrival and lists retained</li> <li>Mentors, coaches and parents escort teams to and from venues</li> <li>Map provided to teams prior to the event</li> <li>Centralised PA system to assist with announcements (Atrium Only and Pit Area)</li> <li>Security notified immediately when child is missing to assist with search.</li> <li>Volunteers clearly identified with bright coloured t-shirts</li> </ul>	<ul style="list-style-type: none"> <li>All students marked off on arrival and lists retained</li> <li>Mentors, coaches and parents escort teams to and from venues</li> <li>Map provided to teams prior to the event</li> <li>Centralised PA system to assist with announcements (Atrium Only and Pit Area)</li> <li>Security notified immediately when child is missing to assist with search.</li> <li>Volunteers clearly identified with bright coloured t-shirts</li> </ul>				Security Event Staff Volunteers	Immediate and ongoing as required.	Continuous Parental monitoring required.
7	Electrocution as a result of power lead to laptop/robots	<ul style="list-style-type: none"> <li>Power leads are tagged and tested.</li> <li>Ensure power leads correctly installed</li> <li>Ensure power leads are secured</li> </ul>	<ul style="list-style-type: none"> <li>Power leads are tagged and tested.</li> <li>Ensure power leads correctly installed</li> <li>Ensure power leads are secured</li> <li>Volunteers check team set up to ensure not compromising their safety</li> </ul>					Event set up, immediate and ongoing.	
9	Emergency points not operating	All points checked and are operating	All points checked and are operating	3 + D = L	3 + E = L	A	Security Services Luan Heimlich Wynonah Bush	Immediate and ongoing as required.	Security Services to conduct pre-event check and

									ongoing as required.
10	Tables collapsing	<ul style="list-style-type: none"> <li>Ensure all tables are checked and correctly installed by volunteers</li> </ul>	<ul style="list-style-type: none"> <li>Ensure all tables are correctly provided by reputable company and installed and removed correctly</li> </ul>	1 + C = L	1 + D = VL	A	Luan Heimlich Wynonah Bush Event Staff	Immediate and ongoing as required.	Event staff to conduct pre-event check and ongoing as required.
11	Overcrowding of venues / crowd crushing	<ul style="list-style-type: none"> <li>Volunteers appointed to assist with crowd control</li> <li>Entrances and exits and pathways comply with OH&amp;S and accessibility standards</li> <li>Careful space planning with traffic flow considered in event plan design</li> <li>Limit amount of persons entering the venue/s at one time</li> <li>Barricades/safety tape used to isolate the area.</li> </ul>	<ol style="list-style-type: none"> <li>Volunteers appointed to assist with crowd control</li> <li>Entrances and exits and pathways comply with OH&amp;S and accessibility standards</li> <li>Careful space planning with traffic flow considered in event plan design</li> <li>Barricades/safety tape used to isolate the area.</li> </ol>	2 + B = Medium	2 + C = Low	A	Security Staff Event Staff Wynonah Bush Luan Heimlich	Immediate and ongoing as required.	Event staff to monitor
12	Evacuation/fire	<ul style="list-style-type: none"> <li>Volunteers trained in emergency procedures</li> <li>Emergency Evacuation plans accessible</li> <li>Evacuation plans circulated to guests prior to event</li> </ul>	<ol style="list-style-type: none"> <li>Venue supervisors trained in emergency procedures</li> <li>Emergency Evacuation plans accessible</li> <li>Trained security personal in managing disaster procedures</li> </ol>	5 + E = Medium	5 + E = Medium	A	Luan Heimlich Wynonah Bush Security Services	Immediate and ongoing as required.	Event staff and security services to monitor

		<ul style="list-style-type: none"> <li>Announcement of exits and evacuation procedure to guests</li> <li>Extinguishers regularly serviced and checked by university</li> <li>Trained security personal in managing disaster procedures</li> </ul>							
13	Medical emergency with child or guest	<ul style="list-style-type: none"> <li>Event organiser has first aid kit on hand</li> <li>Event organiser trained in following university procedures</li> <li>Security notified of the event</li> </ul>	<ol style="list-style-type: none"> <li>MOU Security on site.</li> <li>Event organiser trained in following university procedures</li> <li>Security notified of the event</li> </ol>	3 + D = Low	3 + D = Low	A	Luan Heimlich Wynonah Bush MOU Security Services	Immediate and ongoing as required.	Event staff and security services to monitor
14	Hypothermia	<ul style="list-style-type: none"> <li>Security services on site.</li> <li>Volunteers trained in emergency procedures</li> <li>Trained security personal in managing medical emergency</li> </ul>	<ol style="list-style-type: none"> <li>Venue supervisors trained in emergency procedures</li> <li>Trained security personal in managing medical emergency</li> <li>Volunteers provided with water.</li> </ol>	1 + D = VL	1 + D = VL	A	MOU Security Luan Heimlich Wynonah Bush	Immediate and ongoing as required.	Event staff and security services to monitor
15	Bomb threat	<ul style="list-style-type: none"> <li>University emergency response plan (Trained security personal in managing bomb threats)</li> <li>Volunteers advised of procedures to follow in this event</li> </ul>	<ol style="list-style-type: none"> <li>University emergency response plan enacted</li> <li>Trained security personal in managing bomb threats</li> </ol>	3 + D = LOW	3 + D = LOW	A	Luan Heimlich Wynonah Bush MOU Security Services	Immediate and ongoing as required.	Event staff and security services to monitor
16	Health compromised due to waste	<ul style="list-style-type: none"> <li>Additional rubbish bins located in and around venues</li> </ul>	<ul style="list-style-type: none"> <li>Additional rubbish bins located in and around venues</li> </ul>				MOU Security Luan Heimlich Wynonah Bush	Immediate and ongoing as required	Volunteers and event staff to monitor

# Event Risk Management Plan

		<ul style="list-style-type: none"> <li>• Event staff and volunteers monitor venues for waste</li> <li>• Bins emptied where required of waste</li> </ul>	<ul style="list-style-type: none"> <li>• Event staff and volunteers monitor venues for waste</li> <li>• Bins emptied where required of waste</li> </ul>						
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## Risk Assessment Tables

### Consequence Criteria

The descriptions below are indicative only and provide a guide to relative consequence.

Rating	Score	Criteria	Injuries	Financial Impact	Operational Impact
<b>Insignificant</b>	<b>1</b>	<ul style="list-style-type: none"> <li>Unlikely to have an impact on the University's public image</li> <li>Minor injuries</li> <li>Minimal impact on operations</li> <li>Minimal financial loss (less than \$100,000)</li> </ul>	Minor injuries	<\$100,000	Minimal impact on operations
<b>Minor</b>	<b>2</b>	<ul style="list-style-type: none"> <li>Limited unfavourable media coverage</li> <li>Injuries requiring on campus medical treatment</li> <li>Short-term disruption to core activities (days)</li> <li>Long-term disruption to non-core activities (weeks)</li> <li>Financial loss not covered by insurance (\$100,000 - \$100,000)</li> </ul>	Injuries requiring on campus medical treatment	\$100,000 Financial loss not covered by insurance	Short-term disruption to core activities (days) Inconvenient delays
<b>Moderate</b>	<b>3</b>	<ul style="list-style-type: none"> <li>Unfavourable media coverage</li> <li>Injuries requiring off campus medical treatment</li> <li>Significant disruption to core activities (days)</li> <li>Financial loss not covered by insurance (\$100,000 - \$500,000)</li> </ul>	Injuries requiring off campus medical treatment	\$100,000 - \$500,000	Significant disruption to core activities (days)
<b>Major</b>	<b>4</b>	<ul style="list-style-type: none"> <li>Widespread negative media coverage</li> <li>Legal action involving criminal charges and/or civil suits with possible fines and costs exceeding \$5000,000</li> <li>Single death and/or multiple injuries</li> <li>Short term cessation of core activities (weeks)</li> <li>Financial loss not covered by insurance (\$500,000 - \$1 million)</li> </ul>	Extensive Treatment (single death and / or multiple injuries)	\$500,000 - \$1 million Financial loss not covered by insurance	Short term cessation of core activities (weeks)
<b>Catastrophic</b>	<b>5</b>	<ul style="list-style-type: none"> <li>Government or external agency instigates an inquiry or legal action.</li> <li>Significant damage to the University's reputation</li> <li>Widespread, ongoing, negative media coverage</li> <li>Legal action involving major criminal charges and/or civil suits with possible fines and costs exceeding \$1 million</li> <li>Multiple deaths and injuries</li> <li>Severe environmental damage</li> <li>Long term cessation of core activities (months)</li> </ul>	Multiple deaths and injuries	\$1 million + Financial loss not covered by insurance	Long term cessation of core activities (months)  Destruction or long-term unavailability of infrastructure, systems and resources directly impacting operations

# Event Risk Management Plan

		<ul style="list-style-type: none"> <li>• Destruction or long-term unavailability of infrastructure, systems and resources directly impacting operations</li> <li>• Financial loss not covered by insurance (more than \$1 million)</li> </ul>			
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## Likelihood Criteria

Rating	Score	Description	As a guide...
Almost Certain	A	High likelihood of risk event happening.	Several times within the next year
Likely	B	A risk event is likely to occur.	More than once in next 12 months
Moderate	C	Would not surprise if risk event occurred.	Within next 1 – 4 years
Unlikely	D	The risk event could occur at some time but is unlikely.	Once in 5 years
Rare	E	Within the realms of possibility but extremely unlikely to occur.	Once in 10 years

(Source AS/NZS 4360 Standard for Risk Management)

## Risk Assessment Matrix

Risk rating as a function of consequence and likelihood scores.

Consequence	A	MEDIUM	HIGH	CRITICAL	CRITICAL	CRITICAL
	B	LOW	MEDIUM	HIGH	CRITICAL	CRITICAL
	C	LOW	LOW	MEDIUM	HIGH	CRITICAL
	D	VERY LOW	LOW	LOW	MEDIUM	HIGH
	E	VERY LOW	VERY LOW	LOW	LOW	MEDIUM
		1	2	3	4	5
		Likelihood				

**Recommended Action Guide:**

Abbrev	Action Level	Descriptor
C	Critical	<p>The proposed task or process activity <b>MUST NOT</b> proceed until the supervisor has reviewed the task or process design and risk controls. They must take steps to firstly eliminate the risk and if this is not possible to introduce measures to control the risk by reducing the level of risk to the lowest level achievable.</p> <p>In the case of an existing hazard that is identified, controls must be put in place immediately.</p>
H	High	<p>Urgent action is required to eliminate or reduce the foreseeable risk arising from the task or process. The supervisor must be made aware of the hazard. However, the supervisor may give special permission for staff to undertake some high risk activities provided that system of work is clearly documented, specific training has been given in the required procedure and an adequate review of the task and risk controls has been undertaken. This includes providing risk controls identified in Legislation, Australian Standards, Codes of Practice etc. A detailed Standard Operating Procedure is required and monitoring of its implementation must occur to check the risk level</p>
M	Moderate	<p>Action to eliminate or reduce the risk is required within a specified period. The supervisor should approve all moderate risk task or process activities. A Standard Operating Procedure or Safe Work Method statement is required</p>
L	Low	<p>Manage by routine procedures.</p>
VL	Very Low	<p>Manage by routine procedures.</p>