

## RISK ASSESSMENT – Operation of Estes Rocket Car

ACTIVITY	PERSON AT RISK	SIGNIFICANT HAZARDS	RISK*			RISK CONTROL MEASURES	RESIDUAL RISK**		
			L	S	DR		L	S	DR
Workshop build activity	Team, students, ambassadors & teachers	Slips, trips, falls, burns & cuts	3	2	6	<ul style="list-style-type: none"> <li>• Ensure all equipment used is supervised and cleaned prior &amp; after use</li> <li>• Use authorised &amp; PAT electrical equipment</li> <li>• Maintain a clear work area</li> <li>• Ensure the glue gun &amp; hot wire cutter are supervised by school staff, as they are hot, to reduce risk of burns</li> <li>• Supervise use of hammers with students appropriate to age</li> </ul>	2	1	3
Setting up demonstration area	Team members & others in the vicinity	Slips, trips & falls	3	1	3	<ul style="list-style-type: none"> <li>• Ensure demonstration area is sealed off from unauthorised personnel</li> <li>• Use correct manual handling techniques when moving ballast etc.</li> <li>• Maintain a clear work area</li> <li>• Ensure the area is kept tidy &amp; the rockets, detonator etc. are always supervised</li> </ul>	2	1	2
Prior to activity	As above	Burn, fire & flying object impact injuries	3	5	15	<ul style="list-style-type: none"> <li>• Give clear instruction to 'observers' ensuring they are a safe distance from the rocket car</li> <li>• Ensure a foam pipe lagging is in place at end of run</li> <li>• Ensure the steel support wire is secured &amp; cable tense to avoid the car 'veering off course'</li> <li>• Ensure 2 metal buckets with water are available</li> <li>• In adverse weather a gazebo is useful to keep launch area dry</li> <li>• <b>DO NOT RUN IF HIGH CROSS WINDS</b></li> </ul>	3	2	6
Launching the rocket car	As above	Burn & flying object impact injuries	3	5	15	<ul style="list-style-type: none"> <li>• Ensure general public stand clear of the finish area to avoid potential flying objects</li> <li>• Ensure 3 metre exclusion either side of the track and social distancing in line with school protocols and government guidelines</li> <li>• Give clear instruction not to approach the rocket by anyone other than a team member</li> <li>• Disconnect battery from launcher prior to loading motors</li> <li>• Switch off box &amp; remove key before approaching cars to load motors</li> </ul>	3	2	6

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						<ul style="list-style-type: none"> <li>All igniters to be connected to crocodile clips once motor is inserted in the car</li> <li>Only load the car about to be launched, with a motor</li> <li>Dispose of spent rockets safely</li> <li>Tidy area before observers can use the area for normal activity</li> </ul>			
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LIKELIHOOD (L) = Frequent (5) - Probable (4) - Occasional (3) - Improbable (2) - Remote (1)  
 SEVERITY (S) = Catastrophic (5) - Major (4) - Reportable (3) - Serious (2) - Minor (1)  
 Degree of Risk (DR) = LIKELIHOOD x SEVERITY  
 \* Numbers used are for illustrative purposes only.  
 \*\* Residual risk is the level of risk that remains after suitable and sufficient control measures are introduced.

**Signature sheet**

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Signature(s):	<i>Rob Bennett</i>	<i>Rob Bennett</i>	<i>Rob Bennett</i>	<i>Rob Bennett</i>	<i>Rob Bennett</i>
Position:	H&S Advisor	H&S Advisor	H&S Advisor	H&S Advisor	H&S Advisor
Time and date completed:	05.10.2019	05.10.2020	05.10.21	05.10.22	15.05.23
Date for revision .....	May 2023..... or sooner if significant changes are made to the work area or processes				

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