

<b>JUDGING SUB CATEGORY</b>	<b>SPECIFICATIONS</b>	<b>TEAM ID</b>	
<b>PRIMARY EVIDENCE</b>	<b>PRIMARY RACE CARS</b>	<b>TEAM NAME</b>	
<b>SECONDARY EVIDENCE</b>	<b>ENGINEERING DRAWINGS</b>	<b>SCHOOL</b>	
<b>CRITERIA</b>	<b>1</b>	<b>COMPETITION CLASS</b>	

For clarification on individual regulations, refer to the 2017 Australian Technical Regulations.

Regulation	Regulation Overview	Quick Guide	Penalty	Car A	Judge 1	Judge 2	Deduction	Remarks	Rectification	
<b>ARTICLE T2 – GENERAL PRINCIPLES</b>									Pass/Fail	Pass/Fail
T2.4	Safe Construction	Visual Check	-10							
<b>ARTICLE T3 – GENERAL CAR REGULATIONS</b>									Pass/Fail	Pass/Fail
T3.1.1	Designed and engineered using CAD / CAM	Check Portfolio	-10							
T3.1.2	Body manufactured using CNC only.	Check Portfolio	-10							
T3.1.5	Mirrored Side Machining with 6mm cutter	Visual Check	-10							
T3.1.7	No separately formed balsa parts	Check Drawings	-10							
T3.1.8	Balsa/Foam default material for all non-rotating parts	Visual Check	-10							
T3.2.1	Leading Features Min Width – Foremost Extremity (FE)	3mm or R1.5mm	-4							
T3.2.2	Leading Features Min Width 6mm back from Foremost Extremity	6mm	-4							
T3.3.3	Hand Finishing Permitted. Max variation to CAD Model	3mm	-10							
T3.3.4	Hand created features not permitted	Visual Check	-10							
T3.4.2	REA Corporate Logo Decals (REA, DOD, F1iS, Autodesk, Jetta)	Visual Check	-2 ea							
T3.4.3.1	REA Corporate Logo Decals Minimum Dimensions	30mm x 15mm	-2 ea							
T3.4.3.2	Positioning of F1iS A & B Decals on Side Pods	Visual Check	-2 ea							
T3.4.3.3	Positioning of other Corp. Decals visible in top or side view	Visual Check	-2 ea							
T3.5	Undefined features	Check T1.6	-4							
<b>Points Penalty Page Total</b>							-	<b>Time Penalties Page Total</b>		. s

**LEGEND**  Eligibility Regulations/Possible Disqualification  Critical Regulations/Time Penalty (0.05s ea)

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Regulation	Regulation Overview	Quick Guide	Penalty	Car A	Judge 1	Judge 2	Deduction	Remarks	Rectification	
T3.6	Centre of gravity remains between the axles	Visual Check	-4							
T3.7	Overall length	Min:170 Max:210	-4							
T3.8	Width	Min: 60	-4							
T3.9	Total mass	T1.4.3 / Min:55g	-4							
T3.10	Track clearance	Min: 2mm	-4							
T3.11.1.1	Balsa/foam default material for non-rotating components	Visual Check	-4							
T3.11.2	Balsa/Foam Thickness	Min 3mm	-1							
T3.12	Status during racing – no parts removed/added for racing	Visual Check	-2							
<b>ARTICLE T4 – BODY &amp; SIDE POD REGULATIONS</b>									Pass/Fail	
T4.1	Body construction – single continuous balsa/foam between axles	Visual & Drawing Check	-4							
T4.2	Implants, foreign objects & voids not permitted	Visual & Drawing Check	-4							
T4.3	Width of side pod	Min 50mm	-1							
T4.4	Side pod projected surface	Min 30mm x 15mm	-1							
T4.5	Virtual cargo – between centre line of front & rear axles	T4.5	-4							
T4.6	Virtual cargo identification on Engineering Drawings	Check Drawings	-1							
T4.7	Exclusion zones behind front wheels	Min 15mm	-4							
<b>ARTICLE T6 – WING RULES</b>									Pass/Fail	
T6.1	Top surfaces must be 100% visible	Visual Check	-1							
T6.2	Wing surfaces clearly identified in Engineering Drawings	Drawing Check	-1							
T6.3.1	Front wing clear airspace	Min 3mm	-4							
T6.3.2	Rear wing clear airspace	Min 3mm	-4							
T6.4	Front wing/support structure in front of centre line of axle	Visual Check	-1							
T6.5	Wing construction must remain rigid during racing	Visual Check	-2							
<b>Points Penalty Page Total</b>							-	<b>Time Penalties Page Total</b>		. s

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T6.6	Visibility of front wing unobstructed viewed from front	Visual Check	-1							
<b>T6.9.1</b>	Front wing span	Balsa/Foam: Min 34mm	-4							
<b>T6.9.2</b>	Rear wing span	Balsa/Foam: Min 34mm	-4							
T6.11.1	Front wing chord	Min 15mm	-2							
T6.11.2	Rear wing chord	Min 15mm	-2							
T6.12.1	Front wing thickness	Balsa/Foam: Min 3.5mm Max: 9mm	-2							
T6.12.2	Rear wing thickness	Balsa/Foam: Min 3.5mm Max: 9mm	-2							
T6.13	Rear wing positioning behind centre line of rear axle	Visual Check	-1							
<b>T6.14</b>	Rear wing height measured normal to bottom surface	> 34mm	-4							
<b>ARTICLE T7 – WHEEL REGULATIONS</b>									Pass/Fail	Pass/Fail
<b>T7.1</b>	Number and location, common shared centreline	4, 2 x2	-4							
<b>T7.2.1</b>	Combination of four unmodified REA standard wheels	Visual Check	-4							
T7.5	Full contact width with race track – no camber	80gsm paper	-2							
T7.6	No tyre tread – consistent diameter & circumference	Visual Check	-2							
<b>T7.7</b>	Freely rotating wheels – forward rolling motion	Reasonably minimal effort	-4							
<b>T7.8</b>	Visibility in front view – permitted height of obstruction	Max 15mm	-4							
<b>T7.9</b>	Visibility from top, bottom & side. No obstruction	Min 1mm exclusion zone	-4							
<b>Points Penalty Page Total</b>							-	<b>Time Penalties Page Total</b>		. s

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<b>ARTICLE T8 – WHEEL SUPPORT REGULATIONS</b>									Pass/Fail	Pass/Fail	
T8.3	Four unmodified REA axle grommets	Visual Check	-2								
T8.4.2	2 standard REA axles. No other material to be used.	Visual Check	-2								
T8.5.1	No added parts or modifications to wheel systems	Visual Check	-2								
<b>ARTICLE T9 – TETHER LINE GUIDE REGULATIONS</b>									Pass/Fail	Pass/Fail	
T9.1	2 guides firmly secured, front and rear underside of car	Visual Check	-1								
T9.2	Longitudinal separation measured outside edges of guides	Min 120mm	-1								
<b>T9.4.1</b>	Guides must be closed for racing	Visual Check	-4								
<b>T9.4.2</b>	No sharp edges	Visual Check	-4								
<b>T9.4.3</b>	Adequate strength & fixing	200g mass	-4								
T9.5.1	2 Standard REA Tether Line Guides	Visual Check	-1								
T9.5.2	Placement must be within the 6mm x 6mm tether slot feature	Visual Check	-1								
<b>ARTICLE T10 – POWER PLANT PROVISIONS REGULATIONS</b>									Pass/Fail	Pass/Fail	
<b>T10.1</b>	Cylinder must interface with launch pod	Visual Check	-20								
T10.2	CO <sub>2</sub> cylinder chamber diameter	19mm	-1								
T10.3	Depth of chamber	Min 50mm Max 60mm	-1								
<b>T10.4</b>	Height of lowest point of chamber above track surface	Min 22mm	-4								
<b>T10.5</b>	CO <sub>2</sub> cylinder chamber completely surrounded by balsa	Min 3mm	-4								
T10.6	Paint & other materials not present in CO <sub>2</sub> cylinder chamber	Visual Check	-1								
<b>T10.7</b>	CO <sub>2</sub> cylinder inserted & withdrawn – no removal of car parts	Visual Check	-4								
							<b>Points Penalty Page Total</b>	-	<b>Points Grand Total</b>		/80
							<b>Time Penalties Page Total</b>	. s	<b>Time Penalty Grand Total</b>		. s

**LEGEND**  Eligibility Regulations/Possible Disqualification  Critical Regulations/Time Penalty (0.05s ea)