

2024 Specifications Compliance Score Card – Professional Class



Team Name School Name Ballast Car A Mass Car B Mass

For clarification on individual regulations, refer to the 2024 Australian Technical Regulations

Regulation	Regulation Overview	Quick Guide	Penalty	Car A	Car B	Judge 1	Judge 2	Deduction	Remarks	Rectific	cation	
ARTICLE T2 -	- GENERAL PRINCIPLES									Pass/Fail	Pas	ss/Fai
T2.4	Safe Construction	Visual Check	-10									
ARTICLE T3 -	- GENERAL CAR REGULATIONS									Pass/Fail	Pas	ss/Fai
T3.1.1	Designed and engineered using CAD / CAM	Check Portfolio	-10									
T3.1.2	Body manufactured using CNC only.	Check Portfolio	-10									
T3.1.3	Car A & B - Identical Components	Visual Check	-10									
T3.2.1	Leading Features Min Width – Foremost Extremity (FE)	3mm or R1.5mm	-10									
T3.2.2	Leading Features Min Width 6mm back from Foremost Extremity	6mm	-10									
T3.3.3	Hand Finishing permitted. Max variation to CAD Model.	3mm	-10									
T3.3.4	Hand Created Features – not permitted	Visual Check	-10									
T3.4.1	Team # Decal. Betw. LE of halo & LE of front tyres. In plan view.	Visual Check	-2 ea									
T3.4.2	REA Corporate Partner Decals (REA, DOD, F1iS)	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									
T3.6	Overall length	Min:170mm Max:210mm	-4									
T3.8	Track clearance	Min: 2mm	-4									
T3.9.1	REA Balsa default material for non-rotating components	Visual Check	-4									
T3.9.2	Balsa Thickness	Min 3mm	-1									
T3.10	Status during racing – no parts removed/added for racing	Visual check	-2									
					Po	oints Penalt	y Page Total	-	Time Penalti	es Car A Page Total	0.	s
									Time Penalti	es Car B Page Total	0.	s

Criteria 1 Engineering Specifications Compliance



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ARTICLE T4	- HALO REGULATIONS									Pass/Fail	Pass/Fa	
<u>T4.2</u>	Inclusion of Halo without dimensional changes	Visual Check	-4									
<u>T4.3</u>	Visibility front and side views - no obstructions	Visual Check	-4									
<u>T4.4</u>	Visibility top view - no obstructions excluding the helmut	Visual Check	-4									
<u>T4.5</u>	Circular notch height above track surface	36mm (±1.0mm)	-4									
<u>T4.6.1</u>	Frontal halo load test	1kg mass	-4									
<u>T4.6.2</u>	Inverted halo load test	400g mass	-4									
<u>T4.7</u>	Inclusion of Helmet without dimensional changes	Visual Check	-4									
ARTICLE T5	- BODY & SIDE POD REGULATIONS									Pass/Fail	Pass/Fa	
T5.1	Body construction – single continuous balsa between axles	Visual & Drawing Check	-4									
T5.2	Implants, foreign objects & voids not permitted	Visual & Drawing Check	-4									
T5.3	Width of sidepod	Min 40mm	-2									
T5.4	Side pod projected surface	Min 30mm x 15mm	-1									
T5.5	Virtual cargo – between centre line of front & rear axles	T4.5	-4									
ARTICLE T6	- NOSECONE REGULATIONS									Pass/Fail	Pass/Fa	
T6.1	Nosecone/parts metallic material prohibited	Visual & Drawing Check	-4									
T6.2	Nose cone non-metallic material not behind front axle centre line	Visual & Drawing Check	-1									
ARTICLE T7	- WING REGULATIONS									Pass/Fail	Pass/Fa	
T7.1.1	Car MUST have a front wing	Visual & Drawing Check	-20									
T7.1.2	Car MUST have a rear wing	Visual & Drawing Check	-20									
T7.3.1	Front wing clear airspace	Min 3mm	-4									
T7.3.2	Rear wing clear airspace	Min 3mm	-4									
T7.4	Front wing/support structure in front of centre line of axle	Visual Check	-1									
T7.5	Wing construction must remain rigid during racing	Visual Check	-2									
T7.6	Front wing/support structure-no-metallic material	Visual & Drawing Check	-10									
T7.7	Front wing/support structure-connect with nosecone only	Visual & Drawing Check	-1									
			<u> </u>		Po	oints Penalty	y Page Total	-	Time Penalties	S Car A Page Total	0.	
									Time Penalties	Car B Page Total	0.	

LEGEND

Eligibility Regulations/Possible Disqualification



Critical Regulations - 0.02/0.05 Time Penalty

Critical Regulations/Time Penalty (0.05s ea)

Critical Regulations - 0.1s Time Penalty



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ARTICLE T7	- WING REGULATIONS		•	•	•		•			Pass/Fail	Pass/F
T7.8.1	Front wing span	Balsa: Min 34mm Other: Min 40mm	-4								
T7.8.2	Rear wing span	Balsa: Min 34mm Other: Min 40mm	-4								
T7.10.1	Front wing chord	Min 15mm	-2								
T7.10.2	Rear wing chord	Min 15mm	-2								
T7.11.1	Front wing thickness	Balsa: Min 3.5mm Max: 9mm Other: Min 1.5mm Max 9mm	-2								
T7.11.2	Rear wing thickness	Balsa: Min 3.5mm Max: 9mm	-2								
T7.12	Rear wing positioning behind centre line of rear axle	Visual Check	-1								
T7.13	Rear wing height measured normal to bottom surface	> 34mm	-4								
T7.15	Rear wing non-metallic support structure behind rear axle centre line	Check Drawings	-4								
ARTICLE T8	- WHEEL REGULATIONS									Pass/Fail	Pass/F
T8.1	Number and location, common shared centreline	4, 2 x 2	-4								
T8.3	Team manufactured wheels – front & rear wheel diameter	Min 26mm	-4								
T8.4	Track contact width – front & rear wheels	Front: Min 12mm Rear: Min 15mm	-4								
T8.5	Full contact width with race track – no camber	80gsm paper	-2								
T8.6	No tyre tread – consistent diameter & circumference	Visual Check	-2								
T8.7	Freely rotating wheels – forward rolling motion	Reasonably minimal effort	-4								
T8.8	Visibility in front view – permitted height of obstruction	Max 15mm	-4								
T8.9.1	Visibility from top, bottom & side. In front of front wheels	Min 1mm exclusion zone	-4								
T8.9.2	Visibility from top, bottom & side. Behind front wheels	Min 15mm exclusion zone	-4								
T8.9.3	Visibility from top, bottom & side. In front of rear wheels	Check diagram	-4								
T8.9.4	Visibility from top, bottom & side. Behind rear wheels	Min 1mm exclusion zone	-4								
ARTICLE T9	- WHEEL SUPPORT REGULATIONS									Pass/Fail	Pass/F
T9.1	Contained within projected cylinder volume	Visual Check	-2								
T9.2	Not integrated with wing support systems	Visual Check	-2								
					Po	oints Penalt	es Car A Page Total	0.			
									Time Penaltie	es Car B Page Total	0.



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Regulation	Regulation Overview	Quick Guide	Penalty	Car A	Car B	Judge 1	Judge 2	Dedu	ction	Remarks	Rectifi	cation	
ARTICLE T10	- TETHER LINE GUIDE REGULATIONS										Pass/Fail	Pas	s/Fail
T10.1	2 guides firmly secured, front and rear underside of car	Visual Check	-10										
T10.2	Longitudinal separation measured inside edges of guides	Min 120mm	-1										
T10.3	Inside diameter of guide (hole size)	Min 3mm	-2										
T10.4.1	Guides must be closed for racing	Visual Check	-4										
T10.4.2	No sharp edges	Visual Check	-4										
T10.4.3	Adequate strength & fixing	200g mass	-4										
T10.6	Separate tether guide support system (T10.6.1 – T10.6.6)	Visual Check	-4										
ARTICLE T11	- POWER PLANT PROVISIONS REGULATIONS										Pass/Fail	Pas	ss/Fail
T11.1	Cylinder when fully inserted must interface with launch pod	Visual Check	-20										
T11.2	CO2 cylinder chamber diameter	19mm	-1										
T11.3	Depth of chamber	Min 45mm Max 60mm	-1										
T11.4	Height of lowest point of chamber above track surface	Min 20mm	-4										
T11.5	CO2 cylinder chamber completely surrounded by material	Min 3mm	-4										
T11.6	Paint & other materials not present in CO2 cylinder chamber	Visual Check	-1										
T11.7	CO2 cylinder inserted & withdrawn – no removal of car parts	Visual Check	-4										
			Points Penalty Page Total			-		Po	ints Grand Total		/80		
					Time Penalties Car A Page Tota		0.	s	Time Penalties C	ar A Grand Total	0.	s	
					Time Penalties Car B Page Total				S	Time Penalties C	Time Penalties Car B Grand Total		
LEGEND	Eligibility Regulations/Possible Disqualification	Critical Regulations - 0.02/0).05 Time Pe	enalty	Criti	ons/Time Pe	enalty (0	nalty (0.05s ea) Critical Regulations		- 0.1s Time Pena	lty		

Criteria 1 Engineering Specifications Compliance