

## **<u>2024 Specifications Compliance</u> Score Card – Development 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	ation	
ARTICLE T2 -	- GENERAL PRINCIPLES									Pass/Fail	Pass	/Fail
T2.4	Safe Construction	Visual Check	-10									
ARTICLE T3 -	- GENERAL CAR REGULATIONS									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									
T3.1.3	Car A & B - Identical Components	Visual Check	-10									
T3.1.4	MUST only machine from both sides and top (for halo pocket) OR top and bottom with 6mm cutter	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									
		• •		•	P	oints Penalty	alty Page Total -		Time Penalties	Car A Page Total	0.	s
									Time Penalties	Car B Page Total	0.	s
LEGEND	Eligibility Regulations/Possible Disqualification	itical Regulations - 0.02/0	0.05 Time	Penalty	Cr	ritical Regula	ations/Time	Penalty (0.05s	ea) Critical Regulation	ns - 0.1s Time Per	nalty	



## 2024 Specifications Compliance Score Card – Development Class



Team Name	School Name										
	For clarificatio	n on individual regula	tions, ref	er to the	e 2024 A	ustralian T	echnical F	Regulations			
Regulation	Regulation Overview	Quick Guide	Penalty	Car A	Car B	Judge 1	Judge 2	Deduction	Remarks	Rectifi	cation
ARTICLE T4	- HALO REGULATIONS		•	•	•	-	-		•	Pass/Fail	Pass/Fail
<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	<u>36mm (±1.0mm)</u>	-4								
<u>T4.6.1</u>	Frontal halo load test	<u>1kg mass</u>	-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/Fail
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/Fail
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/Fail
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								
					P	oints Penalty	/ Page Total	-	Time Penalties	Car A Page Total	0. s
									Time Penalties	Car B Page Total	0. s

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



## 2024 Specifications Compliance Score Card – Development Class



Regulation	Regulation Overview	Quick Guide	Penalty	Car A	Car B	Judge 1	Judge 2	Deduction	Remarks	Rectific	ation	
ARTICLE T7	- WING REGULATIONS									Pass/Fail	Pass/Fai	
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									
T7.14	Rear wing must be made of balsa	Visual & Drawing Check	-4									
<b>RTICLE T8</b>	- WHEEL REGULATIONS	÷								Pass/Fail	Pass/Fai	
T8.1	Number and location, common shared centreline	4, 2 x 2	-4									
T8.2.1	Combination of four unmodified REA standard wheels	Visual Check	-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									
RTICLE T9	- WHEEL SUPPORT REGULATIONS									Pass/Fail	Pass/Fai	
T9.1	Contained within projected cylinder volume	Visual Check	-2									
T9.2	Not integrated with wing support systems	Visual Check	-2									
					Po	ints Penalty	/ Page Total	-	Time Penalties	Car A Page Total	0. s	



## **<u>2024 Specifications Compliance</u> Score Card – Development Class**



Team Name	School Name												
	For clarificatio	n on individual regulatio	ons, refer	to the 2	024 Aust	tralian Teo	chnical Re	gulations					
Regulation	Regulation Overview	Quick Guide Penalty Car A C			Car B	Judge 1	Judge 2	Deduction	Remarks		Rectification		
<b>ARTICLE T10</b>	- TETHER LINE GUIDE REGULATIONS										Pass/Fail	Pass	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										
<b>ARTICLE T11</b>	ARTICLE T11 – POWER PLANT PROVISIONS REGULATIONS										Pass/Fail	Pass	s/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										
					Po	Points Penalty Page Total		Page Total -		Points Grand Time Penalties Car A Grand			/80
					Time Penalties Car A Page			0. s	Ti			0.	S
					Time Per	nalties Car B	B Page Total 0. s		Ti	Time Penalties Car B Grand		0.	S
LEGEND	Eligibility Regulations/Possible Disqualification	Critical Regulations - 0.02/0	.05 Time Po	enalty	Critical Regulations/Time		ons/Time Pe	s/Time Penalty (0.05s ea)		Critical Regulations - 0.1s Time Penal		ty	_