



# Australian International Model Solar Challenge

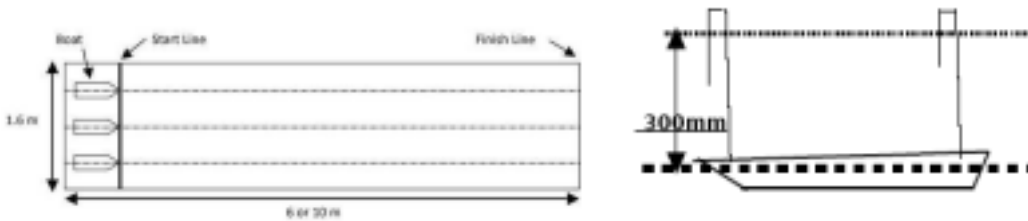
## 2024 Regulations for Advanced Boats

**Eligibility:** The Advanced Boat division is intended for primary and secondary school students

**Boat Size:** The boat shall be no more than 550mm long and 300mm wide.

**Blunt Nose:** The front of your boat should be blunt to avoid getting stuck in the 13mm holes in the starting gate mesh.

**Guides:** A thin line will be suspended 300mm +/- 25mm above the water, to guide your boat down the pool. You will be disqualified from the current race if you are the cause of a collision with another boat.



**Solar cells:** The boat is to be powered by commercially available silicon photovoltaic cells of up to 350 cm<sup>2</sup> active area.

No storage devices or batteries can be used.

**Switch:** An ON/OFF switch should be included in the electrical circuit.

**Inspection:** The solar cells must be removable to reveal the inside of the boat and then secured firmly again.

**Electrical Connections:** It is suggested banana plugs are included in the electrical circuit to help make changeover of panels quicker. These plugs can be purchased from Scorpio Technology, Jaycar and Altronics etc. This is particularly important for teams sharing panels but can also help if a team needs to borrow a panel.

**Hulls:** No commercially built hulls will be allowed. Hulls made from recycled materials are encouraged.

**Motors:** any commercially available motor, gearbox and electronics of any kind can be used, however any storage devices such as capacitors etc. must be fully discharged at the start of the race.

**Propulsion:** No restriction on the number or size of:

- underwater propellers
- air propellers
- paddle wheels
- oars, however, they must not extend beyond the maximum boat size.

**Scrutineering:** Prior to racing all boats need to be checked to establish if they comply with these regulations. Read these regulations carefully and make sure your boat complies. Boats will be given a race number to be attached to one of the back guides. This number will be used to call boats to the starting line for racing. Stay alert so when your number is called, we can get races started promptly.

**Registration:** Entrants must complete registration and a signed Statement of Work, which acknowledges the team has done most of the work with only minimal input from others.

**Documentation** Students are expected to document the steps they went through to build their boats with a poster of approximately A2 size.

The poster is to be handed to officials at scrutineering. Prizes will be awarded for the best poster. See VMSVC Boat Regulations Appendix for guidance.

**Team Uniform:** Prizes will be awarded for the best team uniforms. This is an optional competition.

**Contact:** If you have any questions please contact us at

[michael.richards@modelsolarchallenge.com.au](mailto:michael.richards@modelsolarchallenge.com.au) or 0411 357 894