



SOLAR CHALLENGE

SPREE 100m Solar Car Event Rules and regulations 2023

INTRO

This is a new event and focused on electric cars of the future. It is open to both Primary and Secondary students and will be run on the 100m figure 8 track.

SPIRIT OF THE COMPETITION

We ask students to enter the “Spirit of the Competition”. We hope students will learn new skills and be prepared to be involved in fair and fun racing. Again being a new event we may not think of everything so we will just need to see how it plays out and will be keen to get your feedback.

THE AIM

The aim of this event is for students to build a solar powered electric car and the winner of this event will not necessarily be the fastest car.

Design and constructions are to be carried out by the students with input from teachers and/or parents only when required for safety and education.

EVENT REGULATIONS

Car Size: The car shall be no more than 550mm long and 320mm wide.

Solar cells: The car is to be powered by commercially available silicon photovoltaic cells with no power restriction. Panels will be tested on a light box for power output.

Switch: An ON/OFF switch is to be included in the electrical circuit.

Motors: There is no restriction on the number and type of motors, but you must provide the details at scrutineering.

Aesthetics: The car will be assessed for its car like appearance and will be part of the final score.

Cargo: The car will need to carry two 12 cm (4.5 inch) wooden artist mannequins seated, one in a drivers position and one as a passenger. You can also build your own mannequin but it must be the same size.



Signage: The car will need to include your school’s name, Car name and Car number which will be issued when you register on the web site.

Inspection: At scrutineering you will need to be able to reveal the inside of your car for inspection.

Load: For every watt of power that your panel is tested for you will need to carry 10g of weight/ballast positioned inside your car. This weight needs to be able to be removed for weighing at scrutineering and is in addition to the weight of your car.

Electronics: Electronics of any kind are allowed however any energy storage devices such as capacitors must be fully discharged before the start of each race.

Track: The track will be the 100m figure 8 track. The start will be at the start gate and finish after one lap and down to the 100m finish line at the bottom of the first straight.

Scoring: Points for the overall winner will be allocated as follows

Race	50%
Aesthetics	25%
Engineering	20%
Innovation	5%

Light Box & Testing

We will be holding one day a month at UNSW for teachers and students to come along and test panels plus talk about building solar cars. We will also make available how to make your own light test box for school if you wish.

Prize

There will be a \$500 prize for first place which will go to the school.

We hope this new event will provide new challenges and a very different style of event.

If you have any questions or are unsure of any aspect, please contact me before the day so we do not have troubles on the day.

Thanks.

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