

JUNIOR SOLAR SPRINT | Model Car Specifications

| # | Model Car Specifications |
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| 1 | The model must accurately reflect the design process outlined in the online resources. |
| 2 | The materials used to construct the model car must cost less than \$50. Original receipts for all materials purchased should be put in an envelope and placed in the notebook. The total cost of construction materials should be clearly written on the outside of the envelope. Model cars that exceed this construction cost limit will be disqualified from the competition. |
| 3 | The Junior Solar Sprint kit sold by Solar Made and the Ray Catcher Sprint Kit sold by PITCO are the solar panel/motor kits that are recommended, but not required, to be used in the competition. Solar panels cannot be shaved, drilled, or delaminated. Only the motor supplied in the kit can be used. Motors cannot be re-wound or disassembled. If an evaluation group convened by the event coordinator determines that the solar panel and/or motor have been modified, the car and team will be disqualified from the competition. |
| 4 | The remainder of the vehicle can be innovative in design and materials. |
| 5 | One solar panel (limited to a maximum output of 3.2 W), and one motor (limited to a maximum 3.0 VDC) are allowed per car. Reflectors, supports, and power leads can be added to these components as needed. Energy-enhancing devices, like mirrors, must be firmly attached to the vehicle. |
| 6 | The vehicle must be structurally sound, without the solar panel attached. The solar panel cannot be used as the chassis, or body of the car. The axles and wheels cannot be directly attached to the solar panel. The model car must not exceed the following dimensions: 30 cm (11 3/4 inches) wide by 60 cm (23 5/8 inches) long by 30 cm (11 3/4 inches) high (as measured from the surface the car is resting upon to the highest point of the car with all its components attached) and positioned as during the time trials and races. |
| 7 | The team is encouraged to decorate the body of the car, but a clearly visible 3-cm square space must be available on the car to attach an assigned car number for the race. |
| 8 | The sun's light is the only energy source that can be used to power the vehicle. Batteries, capacitors, flywheels, or any other energy storage devices are prohibited. |