



# SOLAR POWERED CAR

## Car Building Instructions



How to construct a solar powered model car. This car uses the energy from the sun to propel itself forward. There are variations to attempt to alter the speed and distance the car travels.

[https://video.deakin.edu.au/media/t/0\\_b4w9pwas](https://video.deakin.edu.au/media/t/0_b4w9pwas)

Materials	Tools
<ul style="list-style-type: none"> <li>- 6mm Plywood (3mm can be used)</li> <li>- Tamiya single gearbox</li> <li>- Duratech solar panel</li> <li>- 4x plastic wheels</li> <li>- Wire (red/black)</li> <li>- On/off switch</li> <li>- Skewer</li> <li>- Straw</li> </ul>	<ul style="list-style-type: none"> <li>- Glue – General purpose (Tarzan grip used)</li> <li>- Screwdriver</li> <li>- Saw</li> <li>- Soldering iron</li> </ul>



### PROCEDURE

1. Put together gearbox (choose gear ratio prior to constructing)



2. Cut plywood to size – 80mm x 145mm



3. Drill holes in plywood to mount gearbox



4. Cut leftover plywood to 75mm length for front axle and glue to base



5. Cut straw – 85mm and glue to piece of plywood for front axle

6. A hole was drilled in front of the motor to allow for passage of wires from the bottom to the top easily

7. Solder positive and negative wires to the motor (red = positive, black = negative)



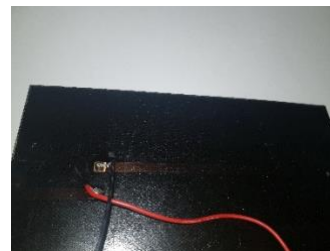
8. Cut black wire in half and solder onto on/off switch

9. Solder other half of black wire onto on/off switch



10. Solder red wire onto positive spot (circle) on the solar panel

11. Solder black wire onto negative spot (square) on the solar panel



12. Glue on/off switch to top of plywood base

13. Cut skewer – 100mm – Place through straw
14. Blu tac front of solar panel to base of car
15. Attach all 4 wheels



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