SOLAR POWERED CAR
Lab Tech Notes

Overview

Subject: Science and Technology

Grade: Years 7 – 9

Topics: Conversion of energy (light energy to electricity)
Relationship between speed, distance, and time
Interaction between energy and materials

Materials

Item/s Per Student	Where to Buy?
1 x 80mm x 145mm - 6mm Plywood (3mm can be used)	Hardware store
1 x Tamiya single gearbox	Jaycar
1 x Duratech solar panel	Jaycar
4 x plastic wheels	
1 x Wire (red and black)	Jaycar
1 x On/off switch	Jaycar
1 x Skewer	Supermarket
1 x Straw	Supermarket

The items listed above are the minimum amount per student for the activity to work. Please ensure there are extra materials available for students if needed.

Tools

Item/s	Where to Buy?
- Glue – General purpose (Tarzan grip used)	Hardware store
- Screwdriver	Hardware store
- Saw	Hardware store
- Soldering iron	Hardware store

Risk Management/Hazards

Using the soldering iron is one of the major risks in this activity. The soldering iron is very hot and must be used with caution as well as being used in a well ventilated area. Correct techniques and safety should be enforced while using the soldering iron.

The drill and saw are two tools with potential danger if used inappropriately. Ensure to wear safety glasses while using these tools and keeps fingers a safe distance away from the blade and drill bit.

Difficulties

Obstacles that students may come across include soldering correctly. This is important as there needs to be a solid connection between the two contact points without any two points touching each other.
The gap between the straw and the wheels on the front axle may also provide a small difficulty. The gap here needs to be minimised but needs to still be big enough to allow for free rotation of the front axle.

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