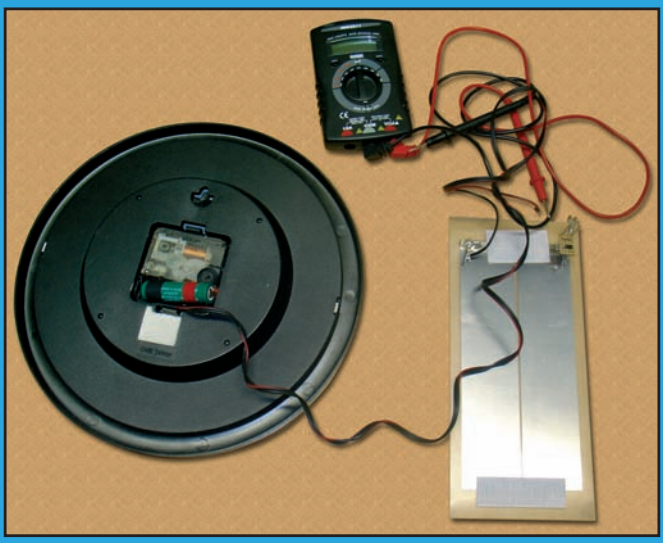
Solar-Active

SOLAR POWERED CLOCK

Educational Kit



**"Tell me, I'll forget. Show me, I'll remember.
Let me do it, I'll understand."**

**"Dígame, yo lo olvidaré. Muéstremelo, lo recordaré.
Déjeme hacerlo, yo lo comprenderé."**

Chinese proverb

Design and Principles of Operation

The solar clock uses a standard clock mechanism, a photovoltaic solar cell and a rechargeable AA battery. The cell provides enough electricity both to run the clock during daylight, and to recharge the AA battery to run the clock during the hours of darkness. The clock can run continuously provided that you keep enough charge in rechargeable AA battery.

The solar clock kit can be used with any standard 1.5V clock movement.

Kit Components

- Design and Principles of Operation Instructions.
- Curricular Activities Worksheet.
- Tagged rechargeable AA battery.
- 2-core wire leads of up to 5 metres.
- Double solar cell.
- Fixing for solar cell to window.
- Current monitor & charge limiter control board.
- Clock circuit drawing.

Optional Components

- Standard clock movement and hands.
- Clock face and template
  e.g. can be made from a CD.
- Digital multi-meter.

Activities can include

- Design clock circuit, housing and face.
- Determine optimum location of solar cell and clock.
- Measure charging current to battery using current monitor & charge limiter.*

*This activity requires the use of a MULTI-METER and introduces the basic concepts of using a multi-meter and using Ohm's Law to determine charging current.

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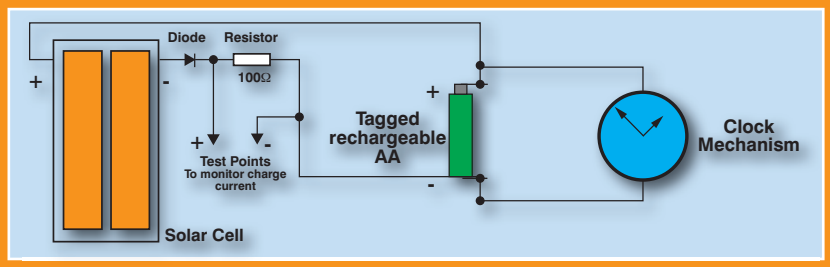
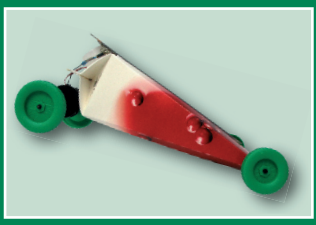


Other available kits include

Single cell car kit



Single cell tetra pack car kit

Double cell car kit

Hydrofoil kit

Double cell boat kit

Lorry kit

Mini waterpump

http://www.solar-active.com/store

Learning to Understand

We offer unique educational resources, workshops and courses in sustainable development, energy efficiency and renewable energy technologies.

Solar-Active Cell Features

- Flexible and lightweight, for education, hobbyists and clothing applications.
- Thin film amorphous silicon construction.
- Spectrum splitting cell constructed of three layers that responds to not only the red, but also the blue-green spectrum.
- Absorbs large quantities of light scattered by cloud cover ie works in diffuse light conditions on cloudy and rainy days.
- No glass components.

Single Cell

Single cell: 1.5V/300mA (accurate to +/- 10%) 193x57x1.3mm, 26 grams.

Double cell: 3V/300mA (accurate to +/- 10%) 218x115x1.3mm, 50 grams.

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PLUGGING INTO THE SUN ®

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