GLOBAL SPECIALTIES®

Solar Fan
Model GSK-1001

This circuit converts sunlight into electrical energy. The fan speed is controlled by the intensity of the sun collect by the solar panel. This kit provides a rudimentary demonstration for how solar energy works.

Technical Specifications

- Power Source: Solar panel
- Solar panel: 4 VDC, 60 mA
- Solar panel dimensions: 2.36 x 2.36 inches

Operating Principles

When the solar panel is facing sunlight, it will convert the sun's energy to DC voltage. The DC voltage will be utilized by the DC motor to turn the fan. Fan speed will be determined by the intensity of the sun collect by the solar panel.

Circuit Assembly

Please refer to Figures 2 for aid in circuit assembly.

Note

This solar panel will not convert fluorescent light to DC voltage.

Special handling instruction

Extra care must be taken to ensure proper installation of solar panel to PCB. Severe damage may occur to the solar panel if the positive and negative poles are short circuited.

Testing

Connect all components as shown in figure 2. Make sure the red clip is connected to the positive pole and the black clip to the negative pole. If the connections are reversed, the fan will turn in reverse direction. The motor (fan) will turn faster the greater the suns intensity and slow or stop moving with less or no sun light.

Troubleshooting

The solar panel may be tested by connecting the positive pole and negative pole to a voltmeter. Turn the solar panel towards the sun, and any movement displayed by the voltmeter indicates the solar panel is functional. To test the DC motor, connect a 3 VDC power source to the motor. If the motor turns, it is working.

Figure 1 Components

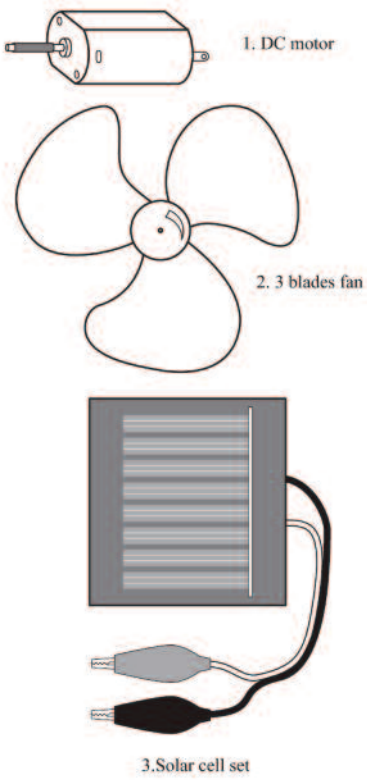

Figure 2 Connecting circuits