



**5I).**

## **Electrical circuits and energy changes.**

Investigate how to wire up the various parts of the board and then consider the energy changes involved.

### **YOU HAVE:**

An electrical circuit board.  
(motor/generator, LED, buzzer, solar panel, capacitor)  
A stop clock,  
Connecting wires and plugs.

### **SAFETY:**

No real safety issues.

### **POSSIBLE QUESTIONS TO ANSWER:**

- 1). How can the motor/generator be connected to make the fan rotate?
- 2). How can the motor generator be connected to make the buzzer sound and the LED light?
- 3). How can you use the solar panel to make the LED light?
- 4). How can the solar panel be used, with the capacitor to make the buzzer sound?
- 5). What can a capacitor be used for?
- 6). What energy changes occur in your investigations

### **REPORT.**

Prepare to describe to the group:-  
the experiments that you did,  
what you have discovered,  
any general conclusions.

Your report should take 3-4 minutes.

You should be prepared to answer questions from the group.