

## Electronics with the Modular System

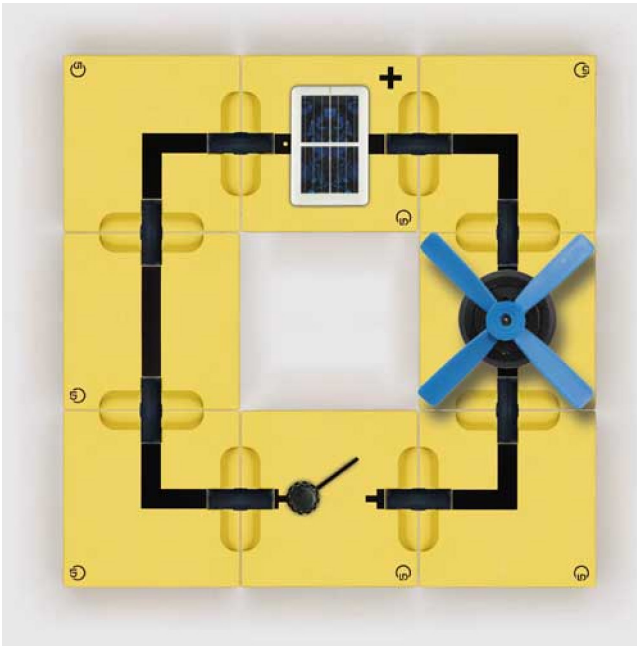
Basic Electronic Circuits  
Solar cells

Converting light energy into  
mechanical energy – Motor  
with blade wheel

### Objective of the experiment

To demonstrate the conversion of light energy into mechanical energy.

### Setup



### Apparatus

1	539 042	Solar cell, BST
1	539 025	Toggle switch, BST
1	666 487	Motor with blade wheel
1	539 001	Connector block BST, straight
1	539 003	Connector block BST, straight, 2 sockets
4	539 004	Connector blocks BST, 90° angle
8	539 000	Bridging plug, BST
1	301 300	Demonstration experiment frame
1	301 301	Adhesive magnetic board

### Carrying out the experiment

#### Note

This experiment can be performed during normal daylight. Direct solar radiation is not necessary.

- Set up the circuit and close the toggle switch.
- Observe the blade wheel on the motor.

### Observation

After closing the switch, the blade wheel begins to rotate.

### Evaluation

In a solar cell, light energy is transformed into electrical energy:  $E_{Light}$  '  $E_{El}$ .

The electrical energy is then transformed into mechanical energy by means of a motor:  $E_{El}$  '  $E_{Mech}$ .