

Electromagnetic Induction Device: "SPARKY"

4RA5

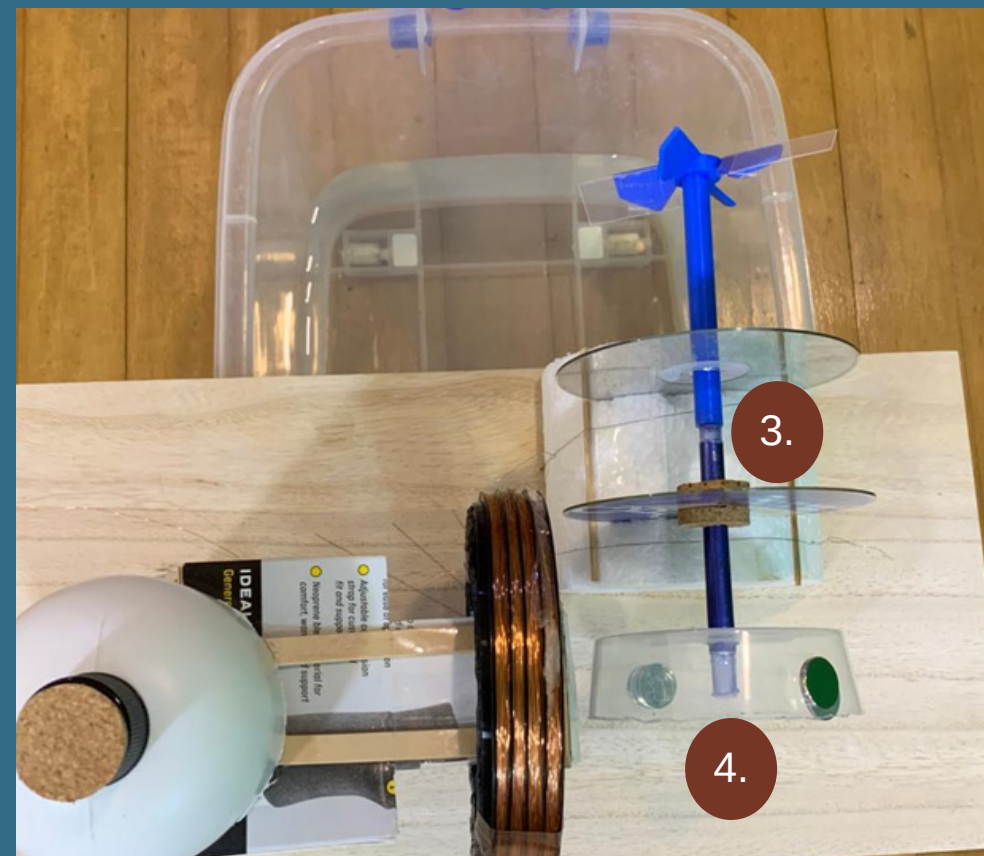
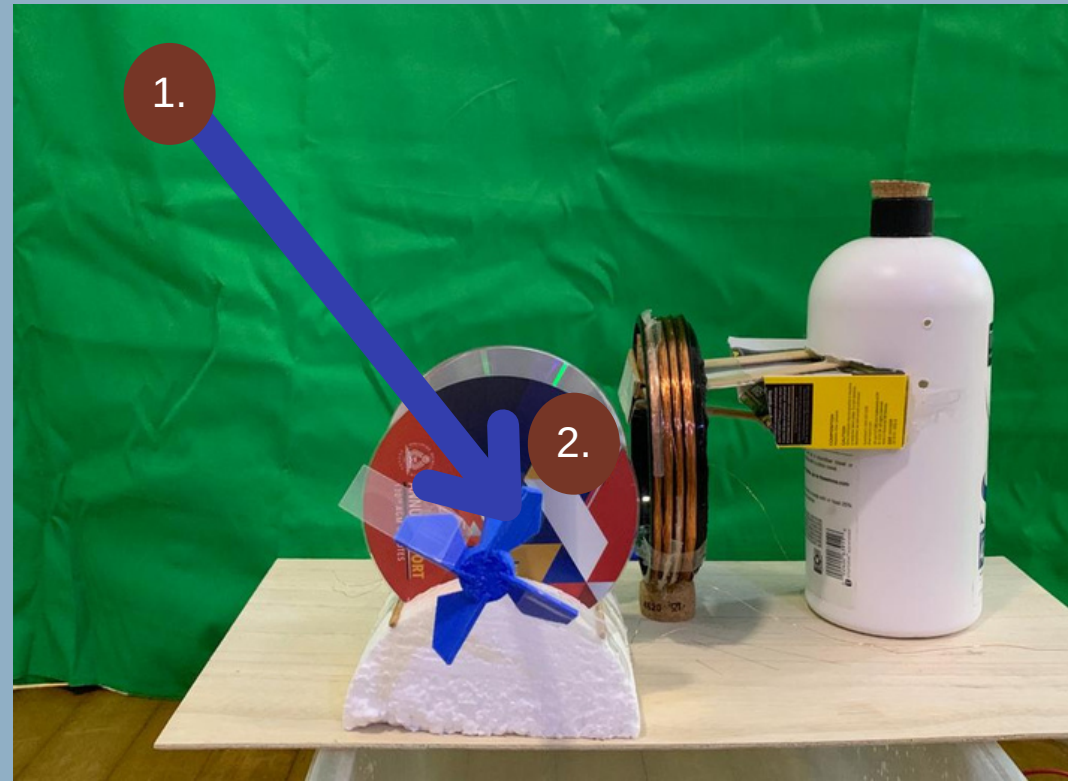
1.

Water falls from above and strikes the blades of the turbine.

2.

This causes the turbine to rotate.

GPE of water \rightarrow KE of water
 \rightarrow KE of turbine



3.

The turbine **rotates the axle**, which is held in place by 2 CDs.

4.

The axle **rotates a circular plastic bowl**. Two neodymium magnets are attached to the bowl.



5.

The **rotating magnets** create a change in magnetic flux linkage.

6.

According to **Faraday's Law**, the **magnitude of EMF** induced in a circuit is proportional to the **rate of change of magnetic flux** across the circuit.

7.

EMF is induced in the coil of copper wires. The EMF is measured using a multimeter.