



Electric & Magnetic Fields Activity for Kids

Simple Motor DIY



Duration: **20 min**



Difficulty: **Easy**



Cost: **\$0 to \$10**

Use a magnetic field to make a simple motor!

Material List

- 1 AA Battery
- 1 Pack Neodymium Disc Magnets
- 1 Copper Wire about 20 cm

Instructions

- 1 Stack the magnets on the negative side of the battery (flat side) and place it on the table.
- 2 Bend the copper wire into a heart shape.
- 3 Place the point of the heart on the positive end of the battery.
- 4 Adjust it so that the ends of the wire lightly touch the magnets.
- 5 Watch it spin!
- 6 Once you get the hang of it try other shapes!

How It Works

The electric current from the battery flows through the wire, generating a magnetic field. The field from the magnets interacts with the magnetic field from the wire. This applies a force on the wire which causes it to move. Scientists call this design a homopolar motor.