



# 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.

