Arvind Gupta
Toys from Trash
www.arvindguptatoys.com/toys.html

- Step-by-Step Photo Guide
- Detailed Worksheet

View One Minute Video at:
http://www.youtube.com/watch?v=YaLPyD3DHGg
Materials

- Strong magnet
- Copper wire
- 1.5 V Battery cell
- Insulated copper wire
Remove insulation / enamel (If using insulated copper wire) of copper wire from all the sides
Fix small copper wire as a brush

Make a coil of copper wire as shown

Attach strong magnet to the positive terminal of the battery
Put coil on battery and magnet as shown and see what happens.

Coil start spinning around the battery cell.
MATERIALS

Variation

- Coil made with bare copper wire
- Strong magnet (neodymium)
- New 1.5 V battery
- Styrofoam cup
Arvind Gupta
Toys from Trash
www.arvindguptatoys.com/toys.html

Step-by-Step Photo Guide

Detailed Worksheet

CLOSE UP VIEW OF THE COIL

BARE COPPER WIRE (NO INSULATION)

PIVOT

FREE END (LIKE BRUSH)

CIRCULAR LOOP
TAPE THE COIL IN A HALF CUT STYROFOAM CUP. DECOARATE THE CUP

DECORATE CUP WITH COLOR TAPE

SPINNING COIL

NEODYMIUM MAGNET
The coil will start spinning when placed on magnet + battery.
File the battery brass buttons flat and stick a strong Neodymium magnet to it.

Take 30-cm BARE copper wire. Shape it as shown.

Place the wire V in the dimple on the battery base.

On giving the wire loop a little push it will start rotating.

The free ends of the wire must touch the magnet.

Stick a strong magnet to the head of a pointed screw. Hang the New battery on the screw. Hang the head of a pointed screw from the battery. Stick a paper clip to a screw. Connect one end of the wire to the flat surface of the battery.

Screw the battery, strong magnet, paper clip and the wire. The wire will spin very fast. The paper clip acts like the blades of a fan.

Touch the other end to the cylindrical surface of the magnet. The screw, magnet and paper clip will spin very fast. The paper clip acts like the blades of a fan.

YOU NEED

SIMPLEST MOTORS

Screw

Strong Paper Clip

Flexi Wire

Bare Copper Wire

NEW Battery

1.5 volts

1.5 volts