

Homopolar Motor (Simple Motor)

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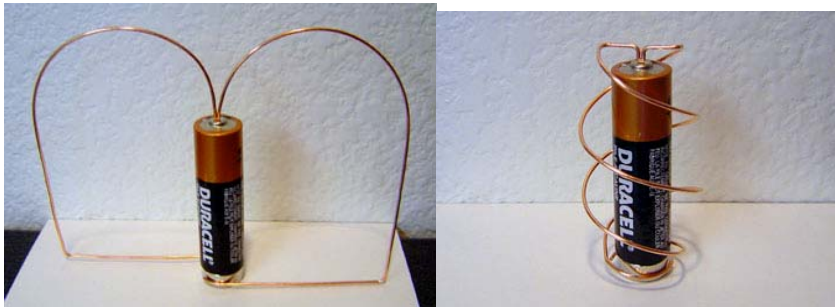


materials

- A. "AA" Battery
- B. Neodymium Magnet
- C. Copper Wire, 18 Gauge

tools

- D. Needle-Nose Pliers



how-to

1. Place the neodymium magnet on the negative terminal of the battery. The magnet used here was 0.5 inches in diameter and 0.25 inches thick. Anything near that size will work, but normal ceramic magnets are too weak. You can buy neodymium magnets at [K&J Magnetics](#).
2. If your copper wire is insulated you need to remove the insulation. Bend the wire into any shape you want, but be sure it makes good contact with the positive terminal of the battery as well as with the circumference of the magnet. Bending the wire into a pretty yet functional shape takes lots of patience. See the photos for two examples of shapes you can make.
3. Balance the copper wire on top of the battery and make small adjustments in the shape until it spins quickly and easily. The battery will only last a few minutes with the wire on it.