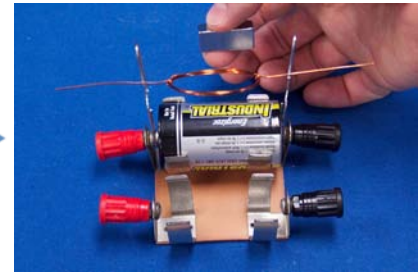
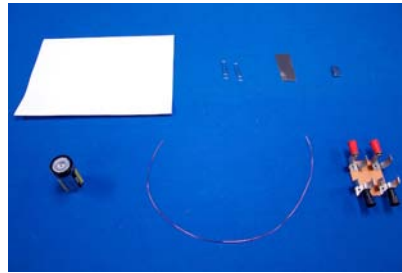


Build Your Own DC Motor

Materials:

1. Paper
2. (2) Paper Clips
3. Sandpaper
4. Neodymium Magnet
5. D Battery
6. 50 cm of 22 AWG Magnet Wire
7. Battery Holder



1. Build the coil

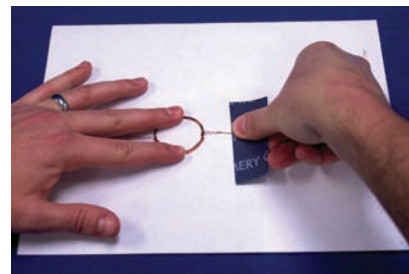
Coil the wire tightly around the battery.



Loop the wire ends (~2 inches) around opposite ends of the coil and straighten them.



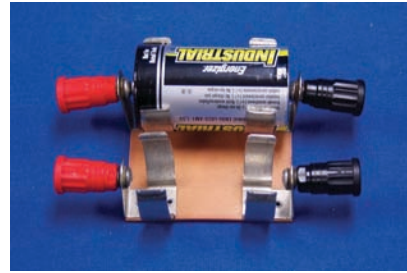
Set the coil on a piece of paper. Use the sandpaper strip to rub off the insulation on the same side of each of the straightened ends.



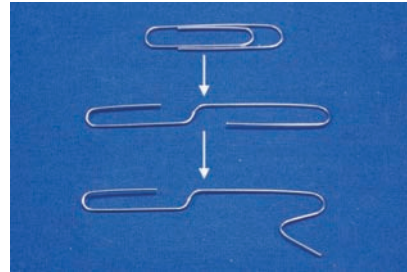
(Continued on Reverse)

2. Build the Base

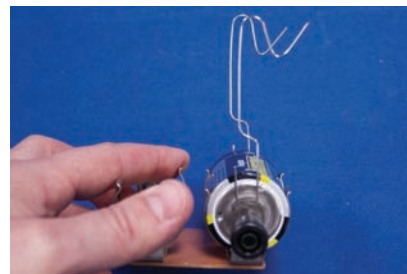
Insert the D battery into the holder.



Reshape both paper clips.

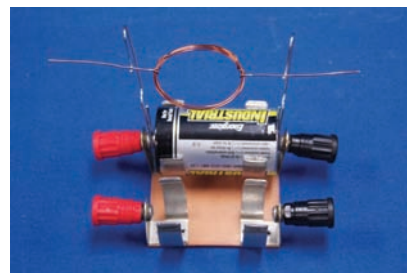


Loop the paper clip ends between the battery terminal and the holder. Make sure the cradles are the same height.



3. Put it all together

Set the coil arms in the paper clip cradles.



Hold the magnet close to the coil and give the coil a push to start it rotating.

