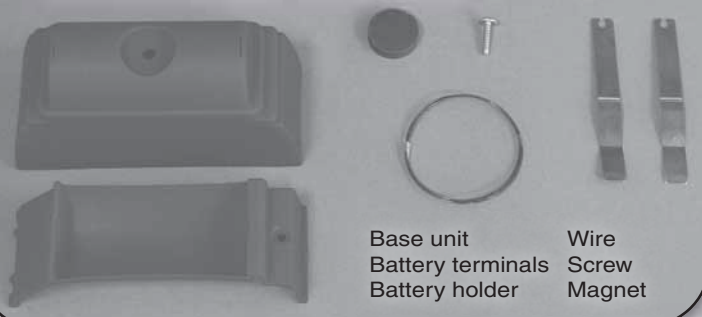
mind™ CRAFTS

science and fun rolled into one!

MOTOR MECHANIC Activity Kit

Included Items:



Base unit
Battery terminals
Battery holder
Wire
Screw
Magnet

Required Items:

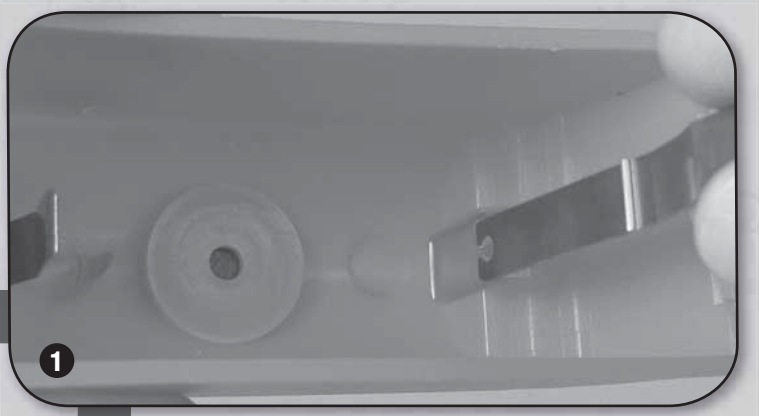
D cell battery
Screwdriver
Sandpaper
Masking tape

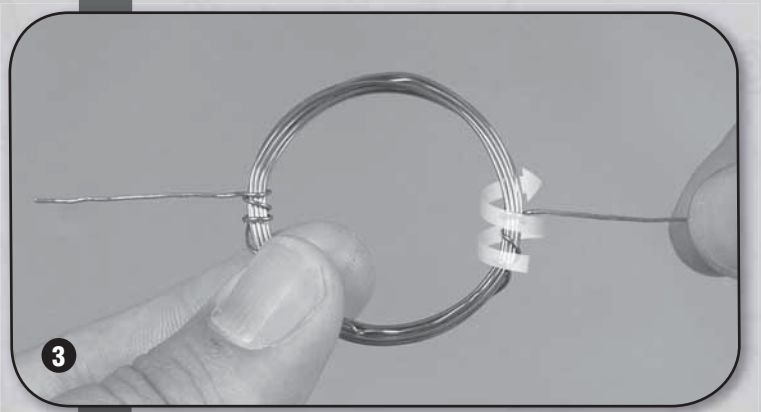
Safety Warnings:

1. Not suitable for children under 3 years because of small parts.
2. Assembly and use of the product should only be done under direct supervision of an adult.
3. Battery should be installed and replaced by an adult.
4. Alkaline batteries are recommended for this product.
5. Do not short circuit the battery terminals.
6. Batteries may leak or potentially explode if misused.
7. The motor generates heat and should not be left running unsupervised.

Assembly Guide:

1. Insert the battery terminals into the base units slots as shown. The bump on the terminal must face in.
2. Tape one end of the wire to a “D” cell battery (not included). Wrap the wire around the battery as neatly as possible.
3. Take the coiled wire off the battery. Unwrap about 2" of wire from each end of the coil. Wrap about one inch of that wire around the coil to hold it together.

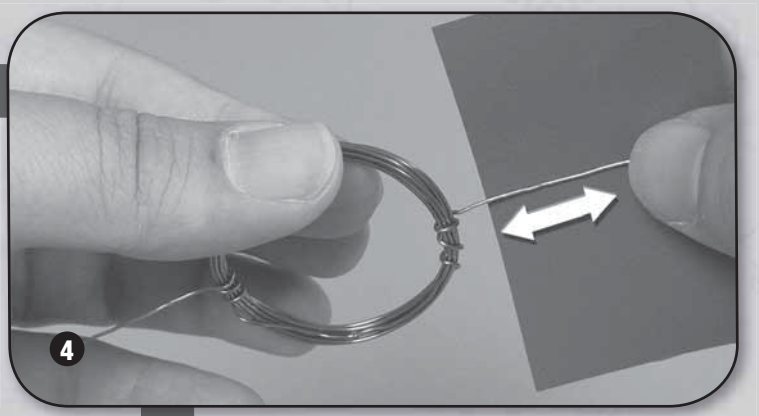




⚠ WARNING:
CHOKING HAZARD — Small parts.
Not for children under 3 years of age.

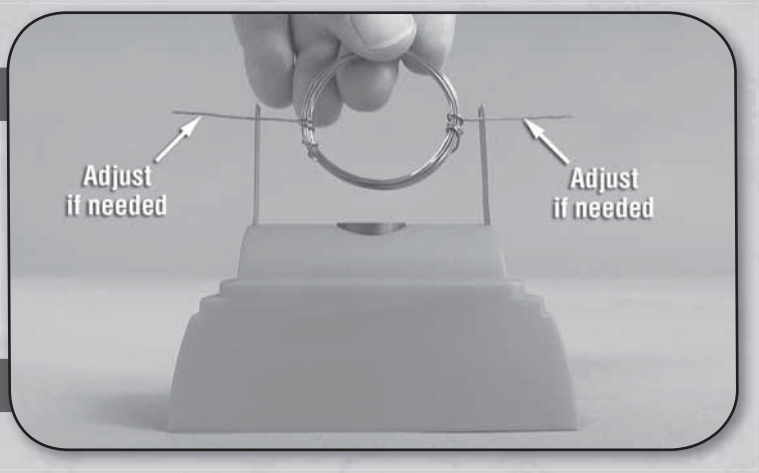
Assembly Guide:

4. Remove the insulation from the remaining 1" of wire by carefully sanding it.
5. Press the magnet into the round section at the top of the base unit.
6. Install the battery and battery holder. Secure the battery holder with the screw.



Operation Guide:

Place the coil into the cut-out at the top of the battery terminals and give it a gentle nudge to start spinning. Watch how the coil spins. Adjust the straight sections of wire so the coils spins smoothly.



Science Facts:

An electric motor works on a simple principle: When an electric current flows through a wire it generates a magnetic field. If this wire is coiled the magnetic field gets stronger, forming an electromagnet. An electric motor is nothing more than coiled wires connected to a source of electricity to form an electromagnet that is placed near a permanent magnet. When power is applied the coiled wire becomes magnetized and is either attracted or repelled by a permanent magnet, causing it to rotate. The result is the electric motor.

Cub Scout Activity Series

REVELL® INC., ELK GROVE VILLAGE, IL 60007 U.S.A.