

D.C. Motor project

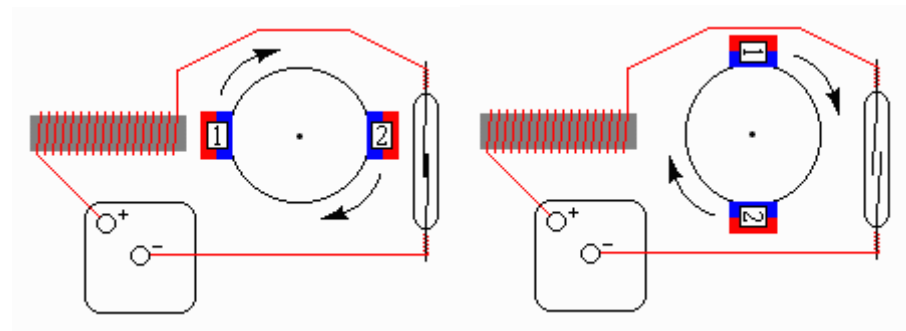
Electric motors are everywhere! Almost every mechanical movement that you see around you is caused by an AC (alternating current) or DC (direct current) electric motor. By understanding how a motor works you can learn about magnets, electromagnets and electricity in general. In this project we are going to talk about the parts that you will need to build a brushless D.C. motor, and how it works.

List of parts needed/used.

1. Rod
2. Magnet Wire
3. Base board
4. Electric Switch
5. Reed Switch
6. Battery Holder
7. Axle
8. Four Mounts
9. Four Magnets

This is how the motor works:

When magnet # 2 gets close to the reed switch the two contacts inside the glass tube get magnetized and touch each other. This causes the electromagnet to push magnet #1 away. When the magnets spin away, the reed switch demagnetizes and gets disconnected. This creates an open circuit disabling the electromagnet. The magnets continue to spin due to inertia until magnet #1 gets in working range of the reed switch. It becomes magnetized again and its contacts connect together making the electromagnet push magnet #2 away. This process continues until the power source is disconnected or depleted, or the reed switch is moved out of working ranges.



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