

Name: _____

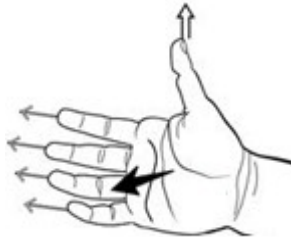
Electric Motors SPH4C

A device that uses an _____ to apply a directed force is called an **electric motor** .

It operates by the _____ (aka _____):

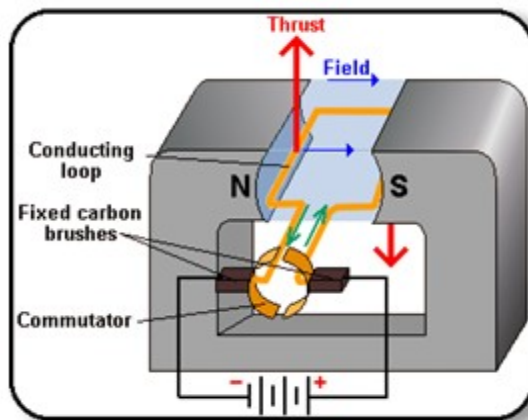
Two magnetic fields interact with each other to produce a _____, so a conductor that carries current through an existing magnetic field experiences a force _____ to both the current and the external magnetic field.

The direction of the force can be determined by the third right hand rule:



The electric motor directs electric force _____ without stopping part way.

In a DC motor, the electromagnet has to change its _____ once every rotation. This polarity change is made because a _____ reverses the current flow in the rotating _____.



The direction of AC alternates back and forth anyway. (In North America, this cycles _____ times per second . . . which translates to rps of the motor.)