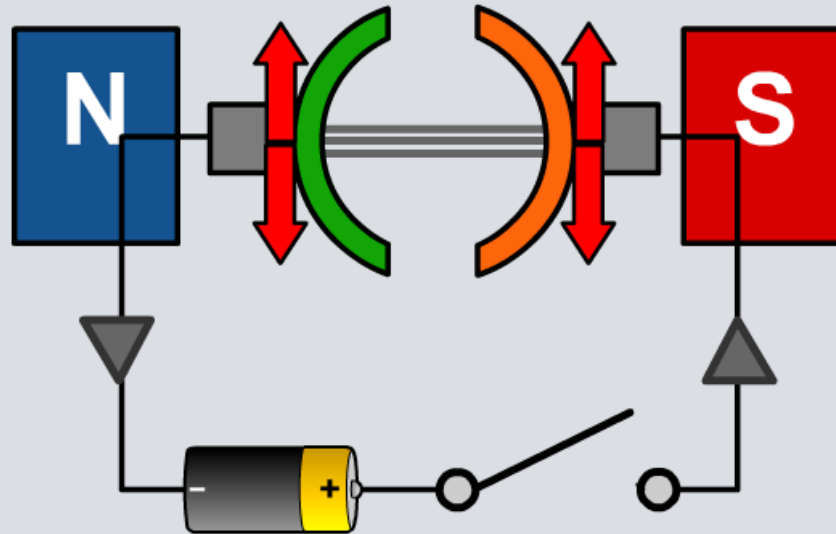


## Motors



# What are electric motors?

How many items do you own that contain an electric motor?

An **electric motor** is a device that converts electrical energy into mechanical energy to produce a turning effect.

Most motors are powered using **direct current** (DC), which is produced by cells and batteries.

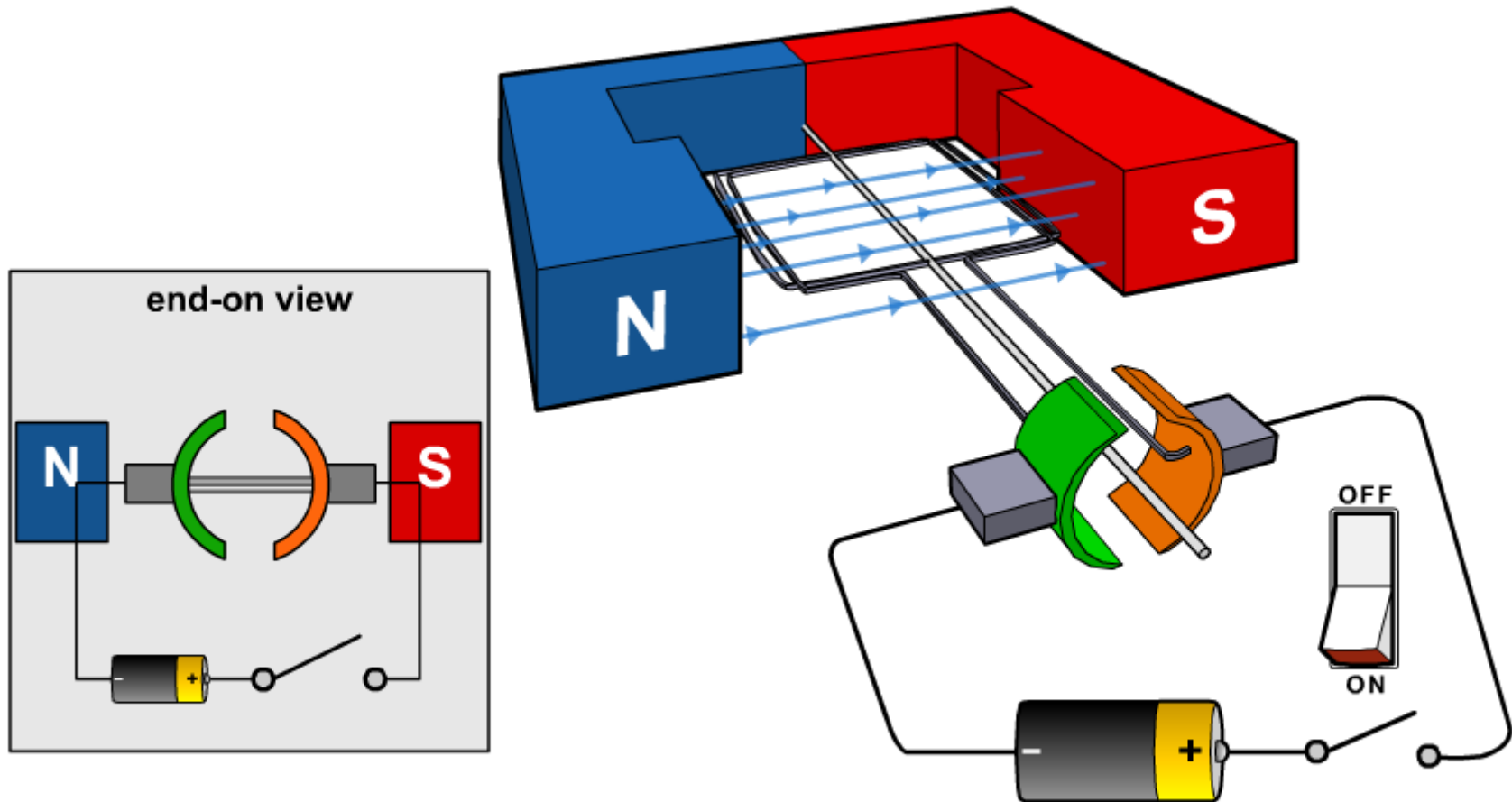
Motors powered by mains electricity use **alternating current** (AC).  
These motors use electromagnets rather than permanent magnets.



# How does an electric motor work?



## How does a simple DC motor work?



current

forces

magnetic field

fast



# How do we increase motor strength?

Would the same strength motor be used in both of these?



How can the strength of an electric motor be increased?

- increase the current flowing through the coil
- increase the strength of the magnet
- increase the number of turns on the coil.

