

**Most American homes have alternating current, which means that the electricity goes in one direction for a while, then goes in the other direction. This prevents harmful electron buildup in the wires.**

**Dave Barry**



**Arizona State University**  
**SES 194**

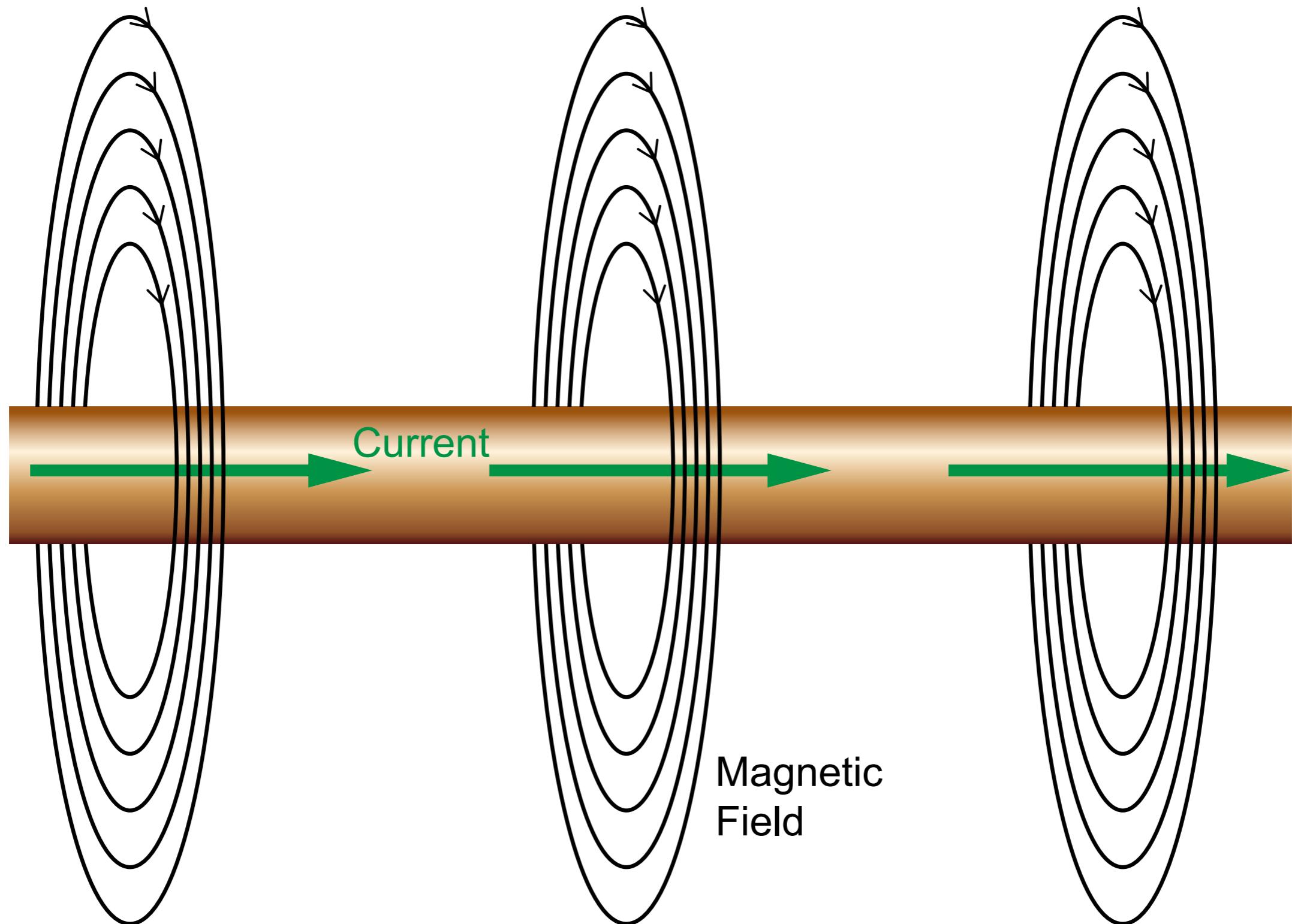
# **Energy in Everyday Life**

## **Magnetic Fields**

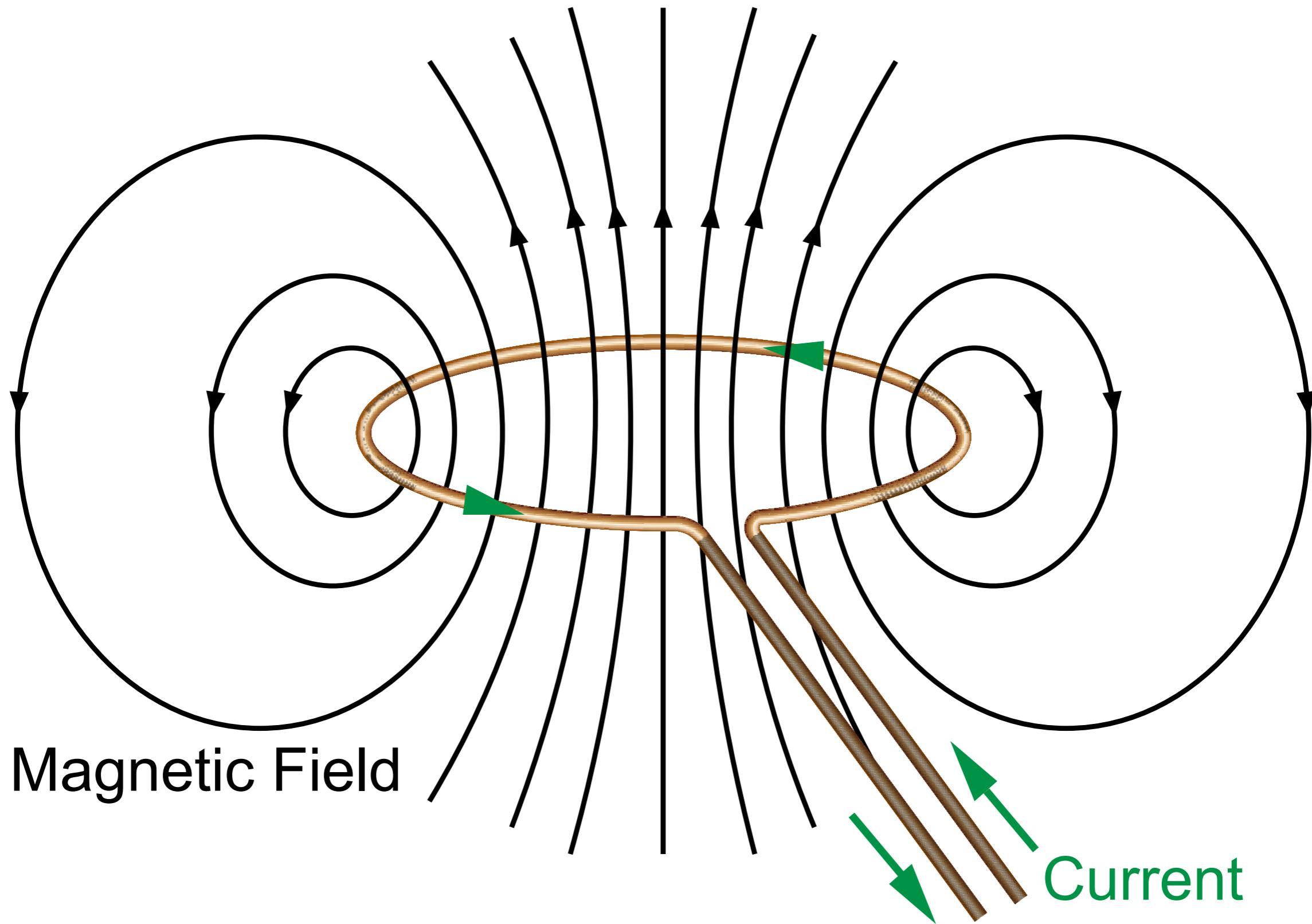
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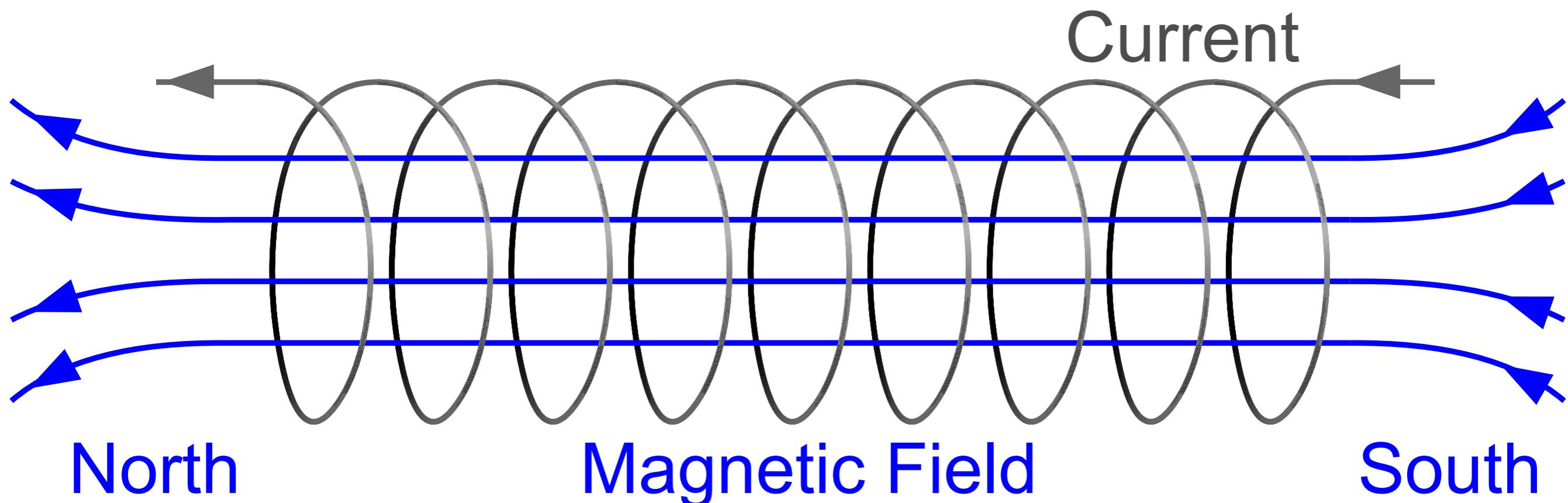
**Every moving charge, called a current, has a magnetic field.**



If we bend our wire into a loop, the magnetic field lines become more uniform as they pass through the hoop.



If we bend our wire into many loops, the magnetic field inside the coil becomes uniform, and acts like magnet with a North and South pole.



**A coil of wire with a current is often called an electromagnet.**

