

How does the Magic Wand work?

Like all wands, our wand is powered by magic... the magic of electricity, that is!

Electricity is a type of energy that can build up in one place or flow from one place to another. It is caused by electrons, the tiny particles that "orbit" around the edges of atoms, from which everything is made. When electrons move, they carry electrical energy from one place to another. This is called **current electricity** or an **electric current**.

For an electric current to happen, there must be a **circuit**. A circuit is a closed path or loop around which an electric current flows. A circuit is usually made by linking electrical components together with pieces of wire cable. Our wands are made with a simple circuit that includes a switch, a battery, and an LED light linked together by wire. When you turn the switch on, electricity flows around the circuit and the LED lights up. If there is a break anywhere in the circuit, electricity cannot flow. So, if the switch is turned off, no electricity can flow. Similarly, if one of the wires or connections is broken, the LED will not light.



Explanation adapted from Explain that Stuff's Electricity article by Chris Woodford
<https://www.explainthatstuff.com/electricity.html>