



Circuit Basics

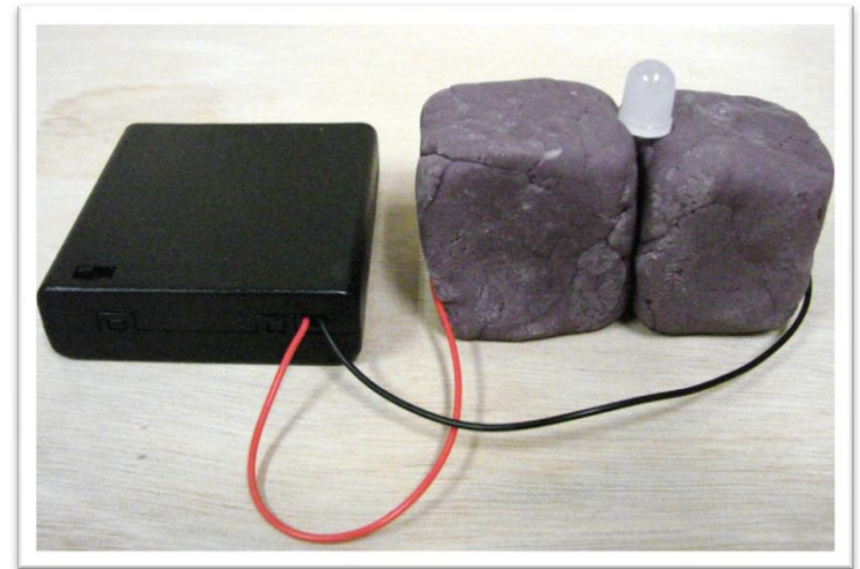
Electricity flows in a loop called a circuit. A circuit starts and stops at the battery pack, and flows through wires, conductive dough, and electrical components such as LEDs and motors.





Circuit Basics – Short Circuit

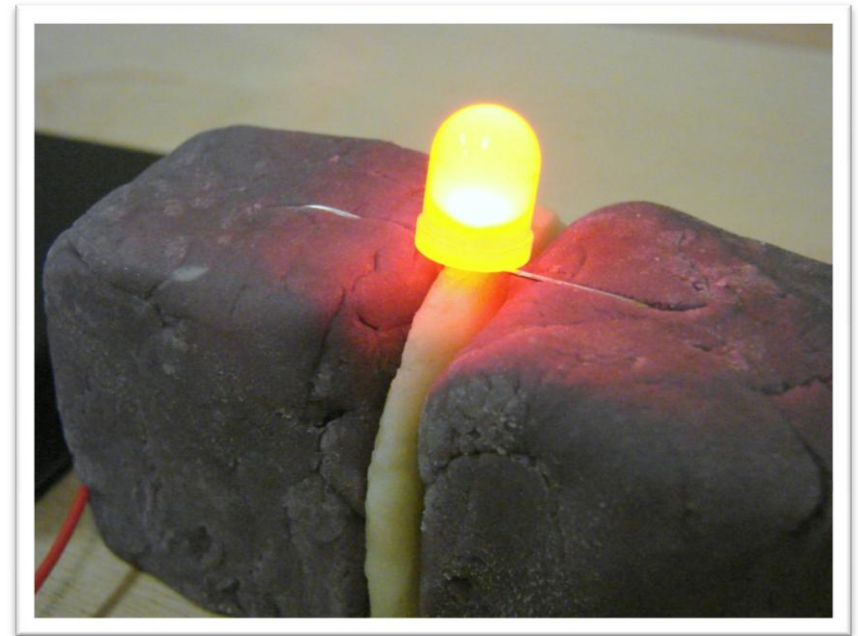
Electricity is like water; it takes the path of least resistance. It is easier for the electricity to flow through the dough than through the LED, so if the dough on each side is touching, electricity does not flow through the LED at all. Therefore, the light stays unlit. This is called a short circuit.





Circuit Basics – Insulator vs Conductor

Instead of separating the pieces of dough, you can also use the insulating dough to separate the conductive dough. Unlike conductors, insulators do not allow electricity to flow through them, so the electricity must go through the LED.





Circuit Basics - LED

The LED (Light Emitting Diode) produces light from electrical power.

To work, it has to be oriented properly (this is called polarity). Usually the two leads are different lengths. The longer lead goes to the positive, or red, side of the battery pack. The shorter goes to the negative, or black, side of the battery pack.

You must have dough between the LED and battery terminals or else the LED will burn out.

