

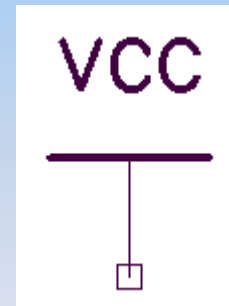
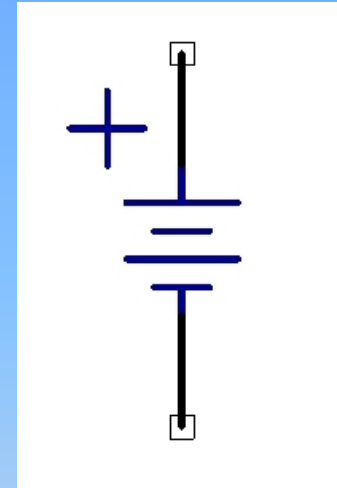
# Electronic Components

# Battery

A portable power source that has a positive and negative.

Electronics works on Direct Current (DC) where electrons flow from negative to positive.

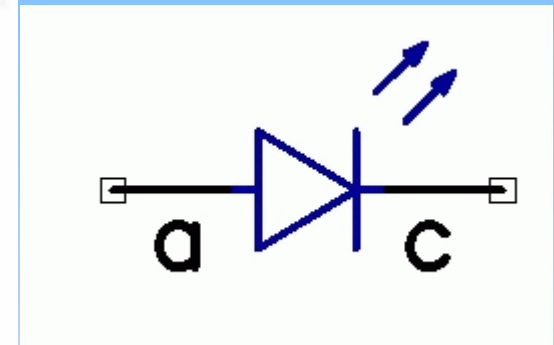
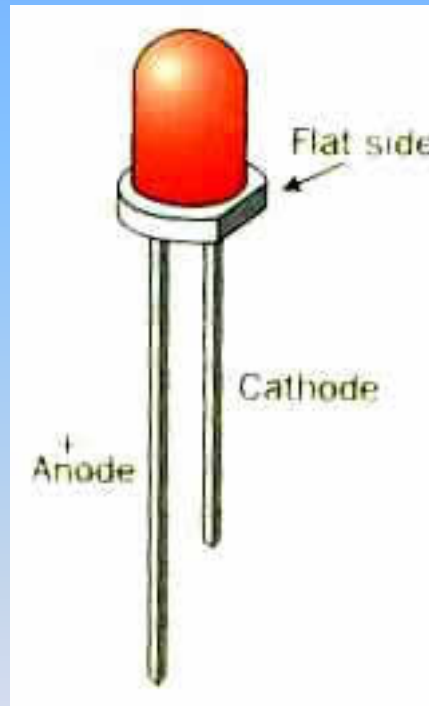
These are the symbols that will be used for Positive and Negative



# LED

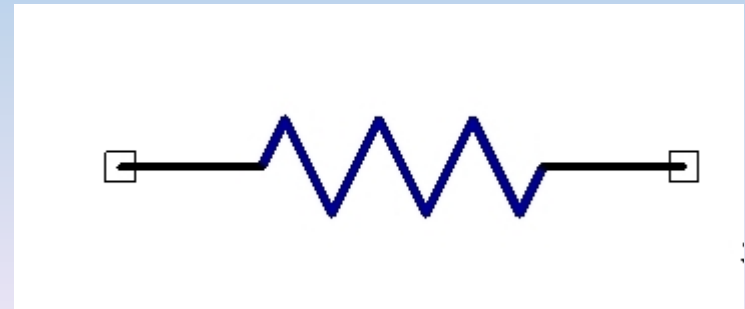
## (Light Emitting Diode)

- Gives off light when electricity flows through it. Has an anode (positive) and cathode (negative) side.



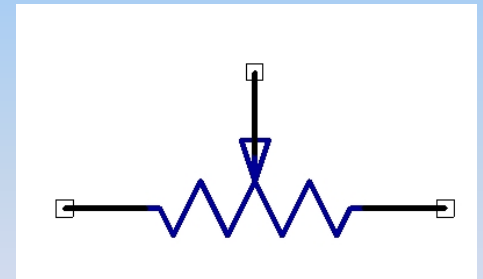
# Resistors

Resistors are used to control the amount of current flowing through a circuit



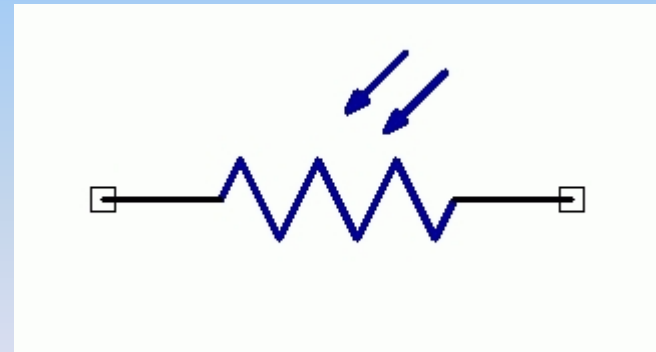
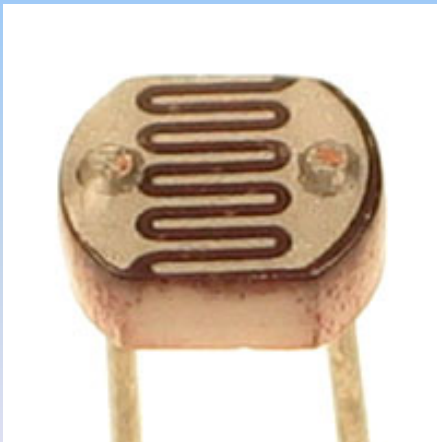
# Potentiometer

A potentiometer is a variable resistor. As you turn the knob, the resistance changes from 0 ohms (no resistance) to its maximum value (lots of resistance)



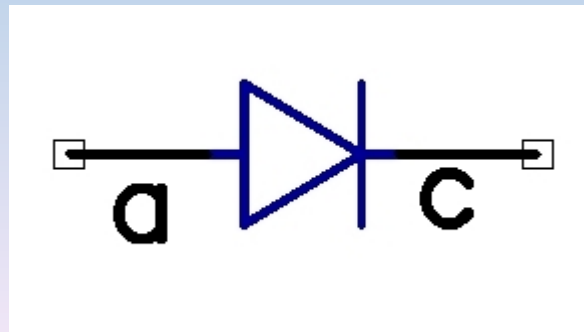
# Photocell

A special kind of resistor that reacts to light. The more light that hits it, the less resistance it has.



# Diode

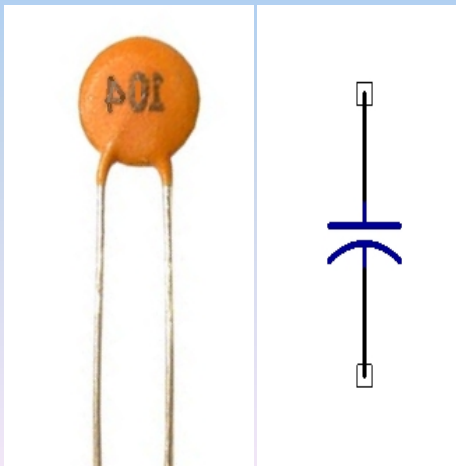
A diode is a device that allows current to flow through it in ONE direction only. There are two leads; Anode and Cathode. When the cathode is connected towards ground, electricity can flow through it.



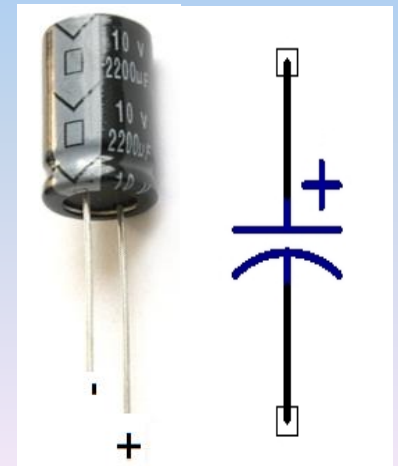
# Capacitors

A device used to store energy much like a battery. Can be charged and discharged over and over. There are different types;

Disc Capacitors



Electrolytic Capacitor



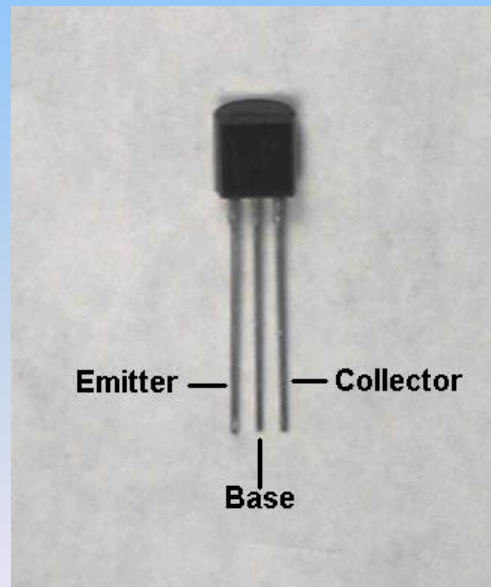
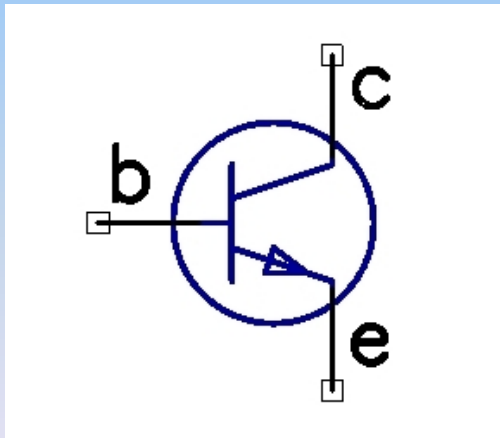
The larger the value of the capacitor, the more electricity it can store



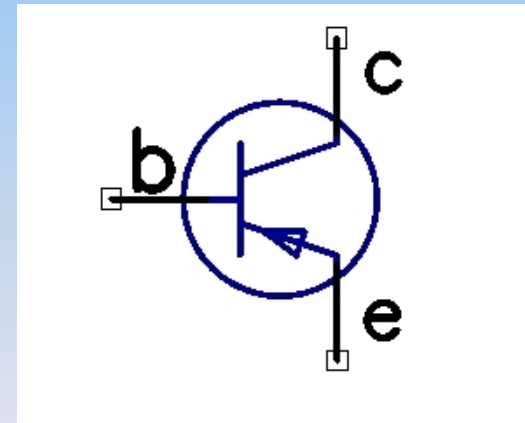
# Transistor

The transistor works as a current amplifier. It uses a small base current to control a larger collector current.

2n3904 NPN Transistor

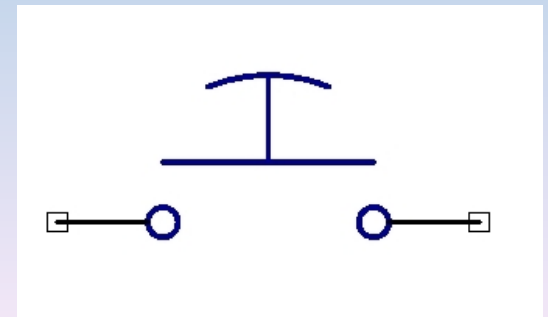
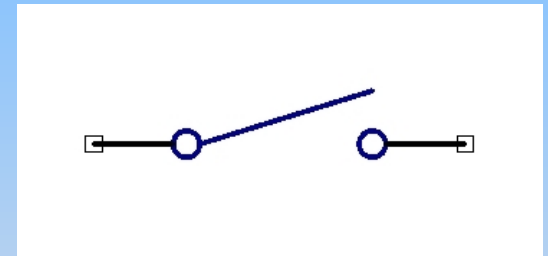


2n3906 PNP Transistor



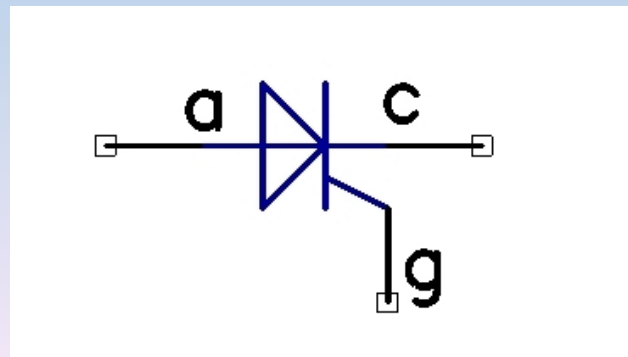
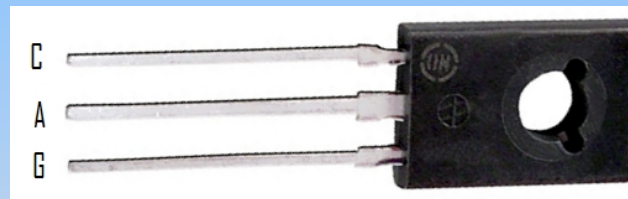
# Switches

Devices that are used to turn ON and OFF the flow of electricity to a circuit.



# SCR

An SCR allows current to flow through it ONLY after a positive voltage is applied to the gate. The cathode must connect towards the negative side of the battery for it to work. Power must be removed from the circuit to reset the SCR.



# Integrated Circuits

- To figure out which pins are which, you need to remember that the text *ALWAYS* faces so you can read it, and the notch, dot, or line is on your left.
- Pin #1 is then on the bottom left corner

