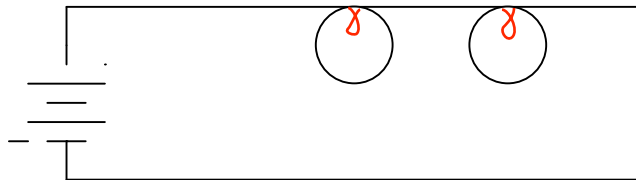


Electrical Circuits

You should think of an electrical circuit as a complete thought. A circuit is an arrangement that allows electrical current to flow.

1. EMF, Electro motive force: is where the flow of electrons originates. The power supply may be: 120 vac from the power company, battery (DC) or a solar cell (DC). The 120 vac power supply can be stepped down through a transformer and rectified to Direct Current.
 2. Conductor: any material that permits the flow of electrons. Conductors allow current to flow from the power source to the load. Some examples of conductors that are typically used are copper, silver, and gold. Other less obvious conductors are water and air the impurities and minerals in materials can cause a material to conduct.
 3. Insulator: any material that inhibits the flow electrons. Examples are rubber, plastics, and dry wood.
 4. Load: the component in the circuit that is performing work and consuming power. The load is measured in watts, ohms. Some examples are: LIGHTS, MOTORS, and HEATING COILS.
1. Series Circuit: In this circuit current must flow from one component through the next.



2. Parallel Circuit: Two or more components are connected so current can flow through one component without have to flow through the other component.

