| Component Name | Circuit Symbol | Function |
| --- | --- | --- |
| Cell |  | Supplies electrical energy to a circuit, the longer line shows the positive side. |
| Battery |  | A battery of cells means 2 or more cells. |
| DC Supply |  | Supplies electrical energy to a circuit in the form of a direct current. |
| AC Supply |  | Supplies electrical energy to a circuit in the form of an alternating current. |
| Lamp |  | A lamp lights when current flows through it, converting electrical energy to light energy. |
| Switch |  | A switch allows you to complete or break a circuit. |
| Resistor |  | A resistor restricts the flow of current, this may be to protect other components. |
| Variable Resistor |  | A resistor, the resistance of which can be varied in the circuit, could be used for a dimmer switch. |
| LDR  (Light Dependent Resistor) |  | Can be used to control a circuit. The resistance goes down as the light increases. |
| Thermistor |  | The resistance of a thermistor will increase as the temperature increases. |
| Fuse |  | A fuse is a safety device – the metal core will melt when too much current is flowing in the circuit. |
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| Voltmeter |  | Measures potential difference. Must be placed in **parallel** to measure the difference in electrical potential between two points. |
| Ammeter |  | Measures current. Must be placed in **series** to measure the current flowing in a circuit. |
| Ohmmeter |  | Measures resistance. Must be placed in **parallel** with the component(s) which are to be measured. |
| Capacitor |  | Used to store electrical charge, can be used to create a simple timing circuit, or in the flash in a camera. |
| Diode |  | Only allows current to flow in one direction. |
| Photovoltaic Cell |  | Converts light energy to electrical energy, can be used as the power source in a circuit. More light will mean a greater p.d. across the cell. |
| LED  (Light  Emitting Diode) |  | Emits light when a current flows but only allows current to flow in one direction. Requires less energy than a lamp. |
| Motor |  | Converts electrical energy into kinetic energy by turning. |
| Loudspeaker |  | Converts electrical energy into sound energy. |
| NPNTransistor |  | Acts as a swith when a voltage of 0.7 V is applied across the base and emitter |
| N-channel enhancement MOSFET |  | Acts as a switch when a voltage of approximately 2 V is applied across the gate and the source. |