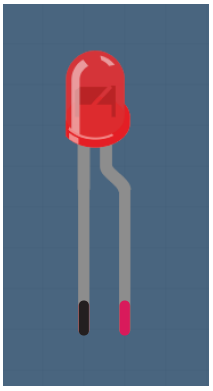
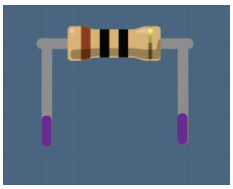
Basic Components:



LED

LED stands for "Light Emitting Diode". It produces light (hence 'light emitting') but it only produces light when electricity is flowing through it in one particular direction ('diode'). If electricity tries to flow through it the other way it will not work. The longer 'leg' of the LED should be *high* or *positive*, while the shorter should be *low* or *negative*.

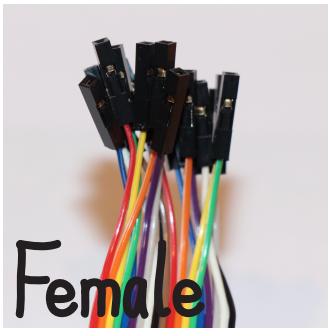
Resistor



A resistor is an electrical component that limits or regulates the flow of electrical current in an electronic circuit. They can also be used to provide a specific voltage for an active device.

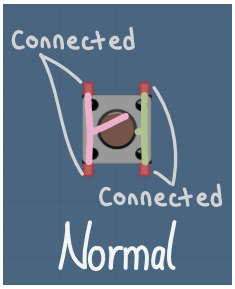
Jumper Wires

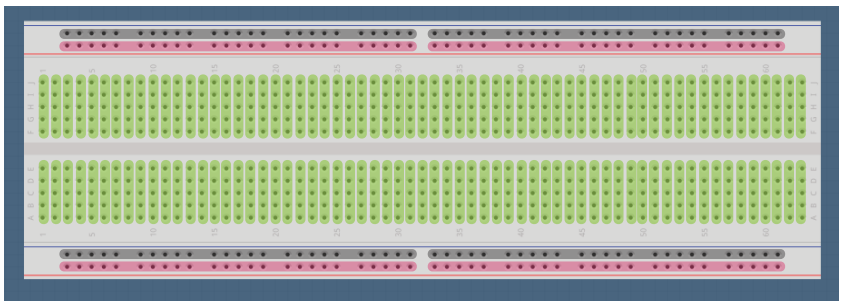
a wire with exposed ends that can be used to make connections between holes in a breadboard (or, really anything). We have included "flexible jumper wires" in your kits and there are two types of end (or 'plug') that they can have: male or female. Male plugs are typically inserted into something to make a connection. Female plugs have a stripped wire (or male plug) inserted into them (you can treat them as you do a single cell of a breadboard); these are the type of plug that we want in order to connect jumper wires to the headers soldered onto our bean.



Button

More specifically - a 'push button'. They can work in two different ways. Ours suspend a connection between two points until the button is pressed. When the button is pressed (and ONLY when it is being held down) the connection between the points is completed.





Breadboard

Plastic slab containing conductors that connect cells to one another. It allows components to be connected neatly and quickly, and its easy to rearrange as needed. The black, red, and green lines on this picture reflect the way that the breadboard's cells are connected for the boards in your kit. It's important to note, though, that this can vary from board to board.

Kate Wasynczuk