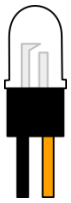
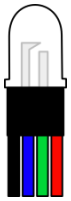
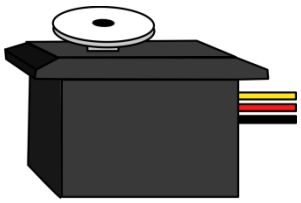
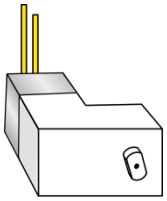
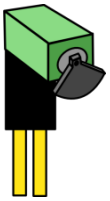
Arts & Bots

Hardware Component Quick Reference

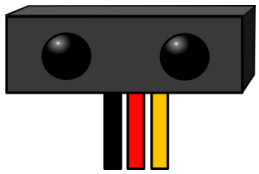
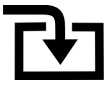
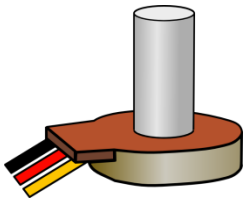
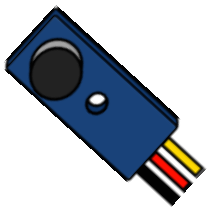
LIGHTS

Name and Image	What does it do?	Plug it in	Icon
 LED	It is a single color light source with controllable brightness.	Color → **+** (Positive) Black → **-** (Ground) The colored wire of the LED indicates the color of its light!	
 Tri-Color LED	It is a red-green-blue (RGB) light source which can produce many light-based colors.	Red → **R** (Red) Green → **G** (Green) Blue → **B** (Blue) Black → **-** (Ground)	

MOTORS

Name and Image	What does it do?	Plug it in	Icon
 Servo	It is a limited range motor with controls for specific angular positions.	Yellow → **S** (Signal) Red → **+** (Positive) Black → **-** (Ground)	
 Motor	It is an electric motor with speed control that can rotate in either direction indefinitely.	Yellow → **+** (Positive) and **-** (Ground) Since both wires are the same color, the motor can be plugged in two ways. Switching them just changes which direction is “forward”.	
 Vibration Motor	It is a small motor that causes a shaking motion where you can control the intensity of shaking.	Yellow → **+** (Positive) and **-** (Ground) Since both wires are the same color, the vibration motor can be plugged in two ways. Switching them just changes which direction the weight spins.	

SENSORS

Name and Image	What does it do?	Plug it in	Icon
 Distance Sensor	It is a sensor that detects how far away something is.	All sensors are connected to the Hummingbird in the same way and can be used on any sensor port: Yellow → **S** Signal Red → **+** Positive Black → **-** Ground	
Light Sensor	It is a sensor that detects how bright the ambient light is.		
Temperature Sensor	It is a sensor that detects the temperature.		
 Potentiometer	It is a sensor that detects how it has been rotated.		
 Sound Sensor	It is a sensor that detects how noisy its surroundings are.		