My First Animated Character

I can create a character from a book and add motion by programming a position servo.

Pretest: What I Already Know

Name:

Robotics Knowledge

1. What is a servo?

2. How do humans and robots communicate?

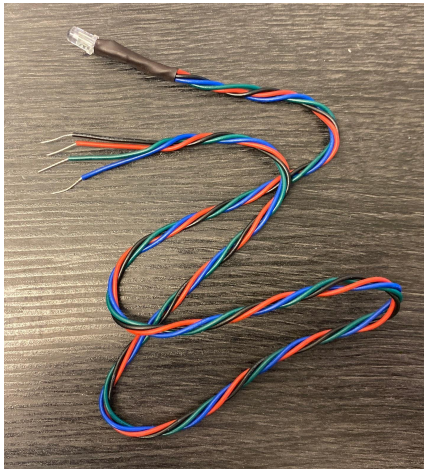
What is in the Kit?

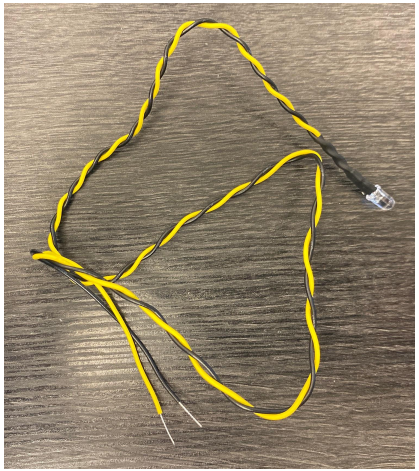
https://www.birdbraintechnologies.com/products/hummingbird-bit-robotics-kit/

LEDs

An LED is a light emitting diode. More simply, it’s a light!

An LED looks like:





Servo Motors

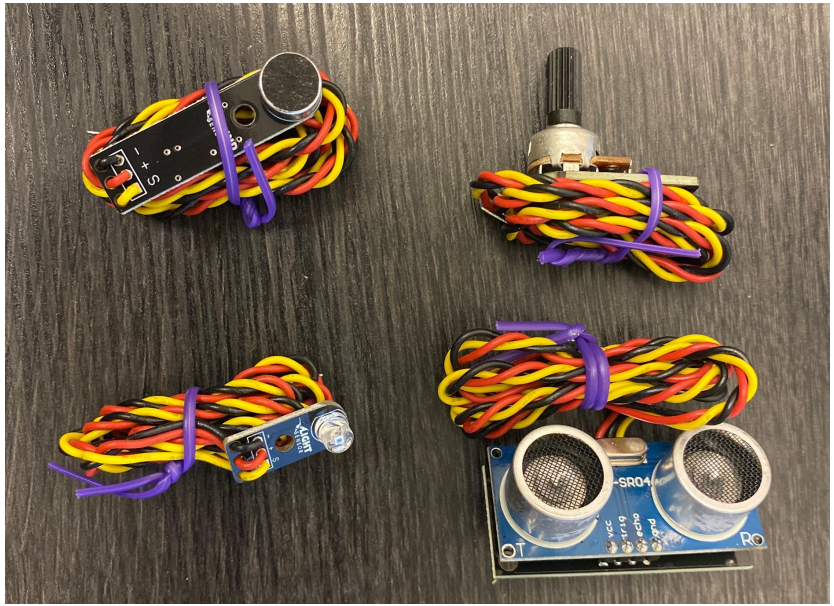
A servo motor is a robot part that moves in a circular motion. These motions are precise.

A servo motor looks like:

Sensors

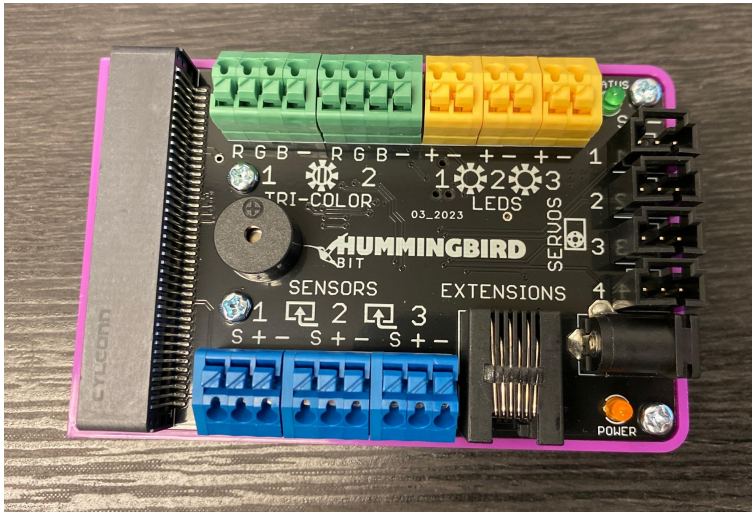
A sensor is a robot part that takes input from the environment. It acts like the robots eyes, ears, or skin.

A sensor looks like

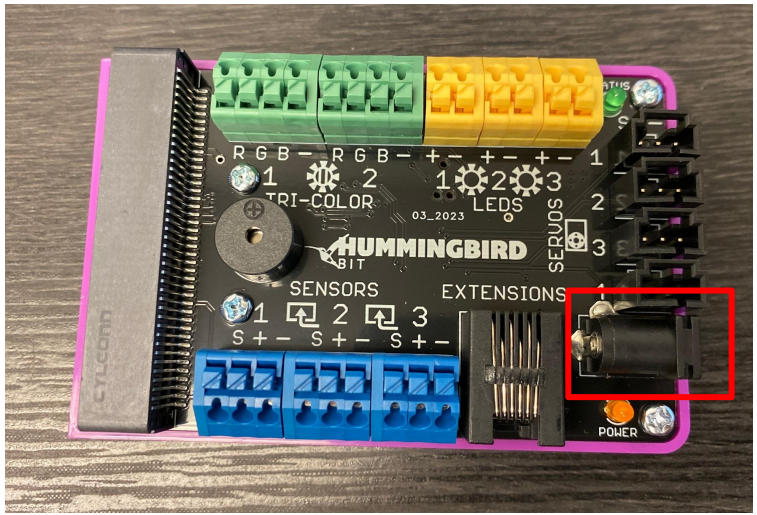


The Hummingbird Board

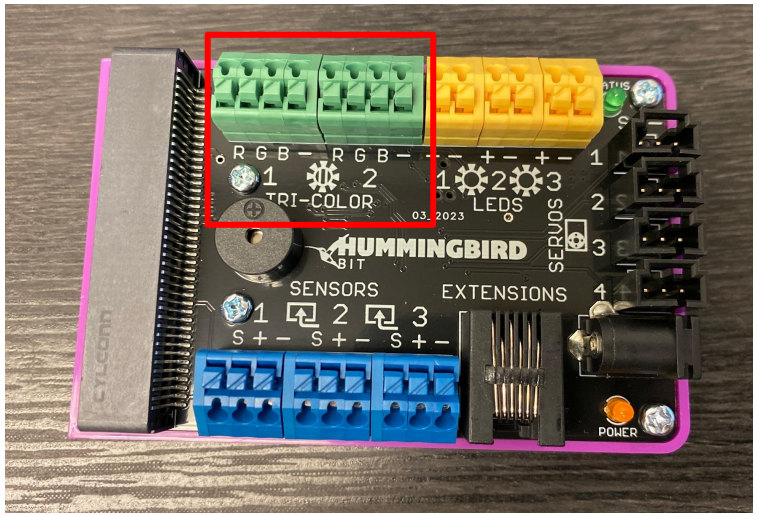
Negative(-) is black



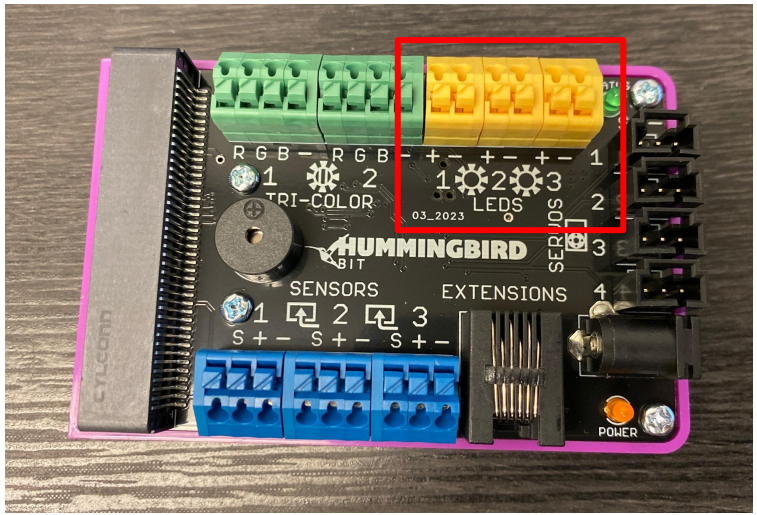
Battery Connector



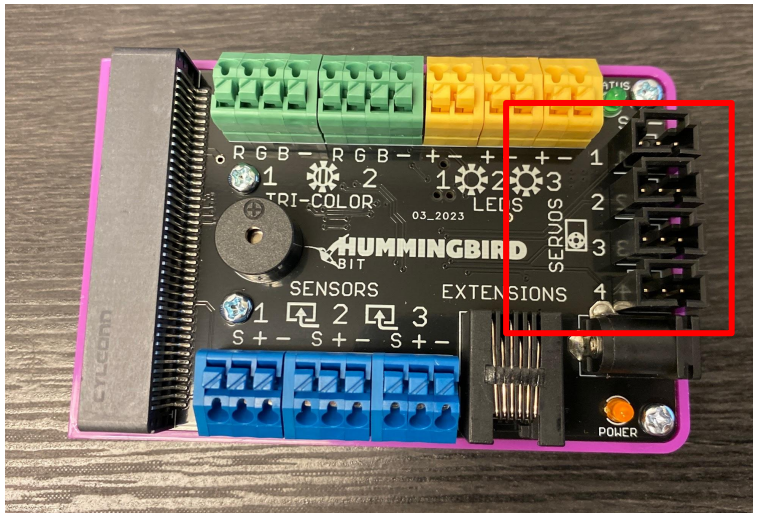
Tri-Color LED Connectors



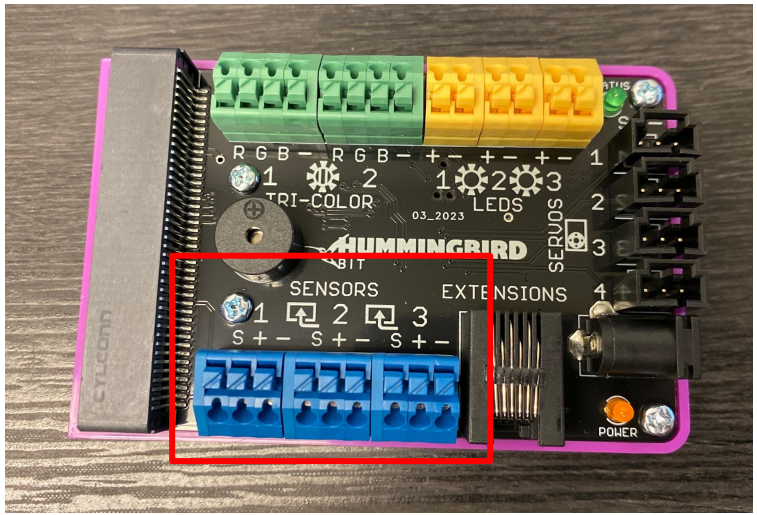
Single Colored LED Connectors



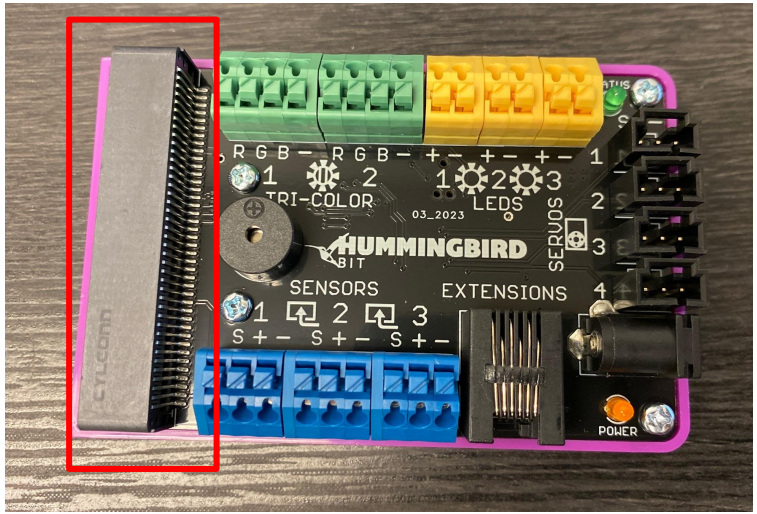
Server Connectors



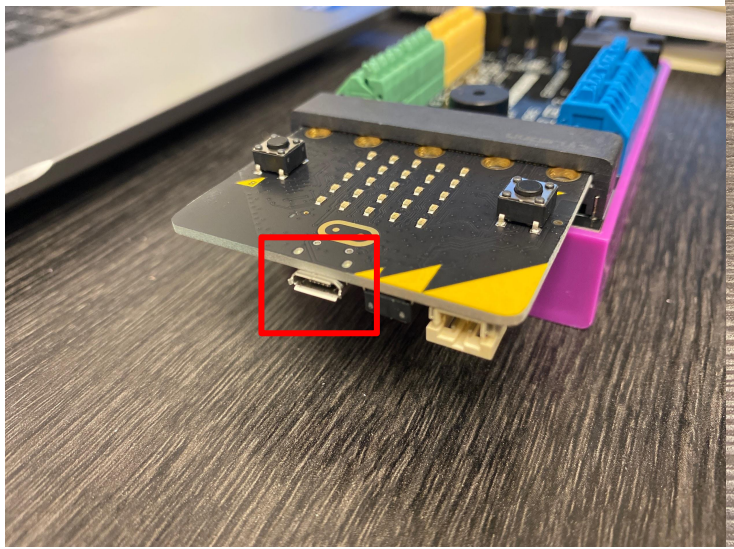
Sensor Connectors

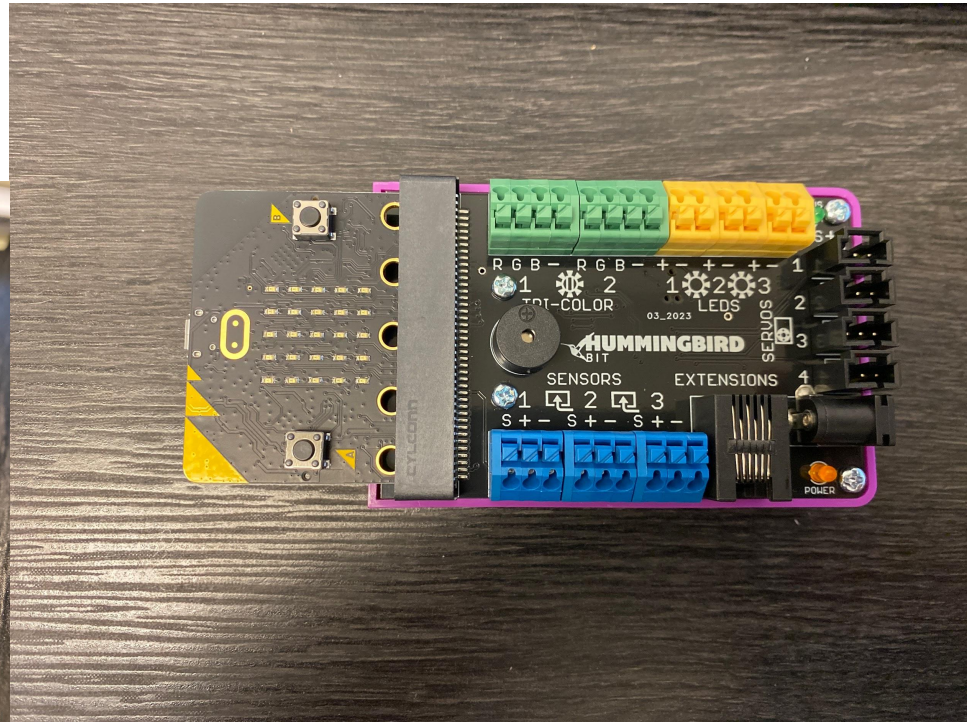


Microbit Slot



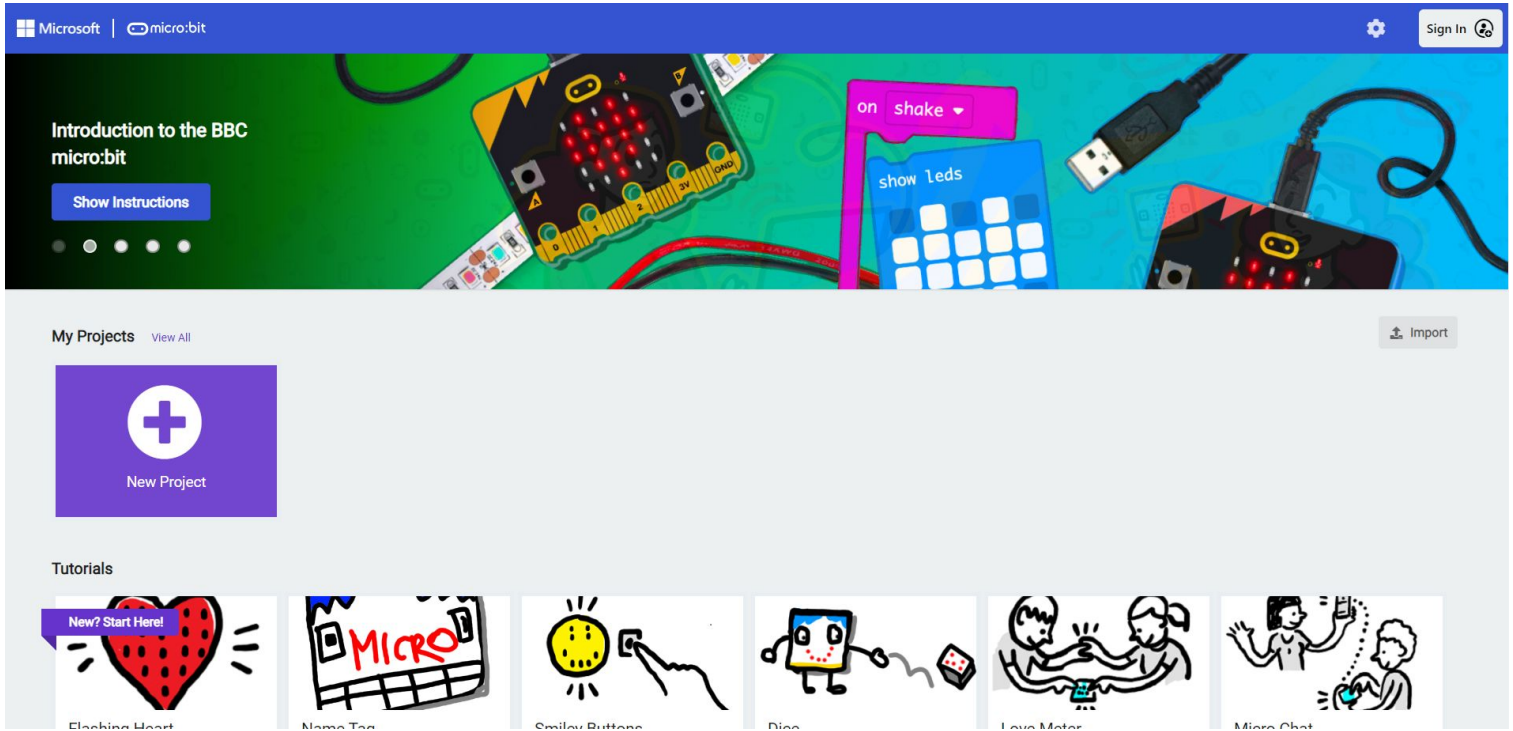
USB Connector



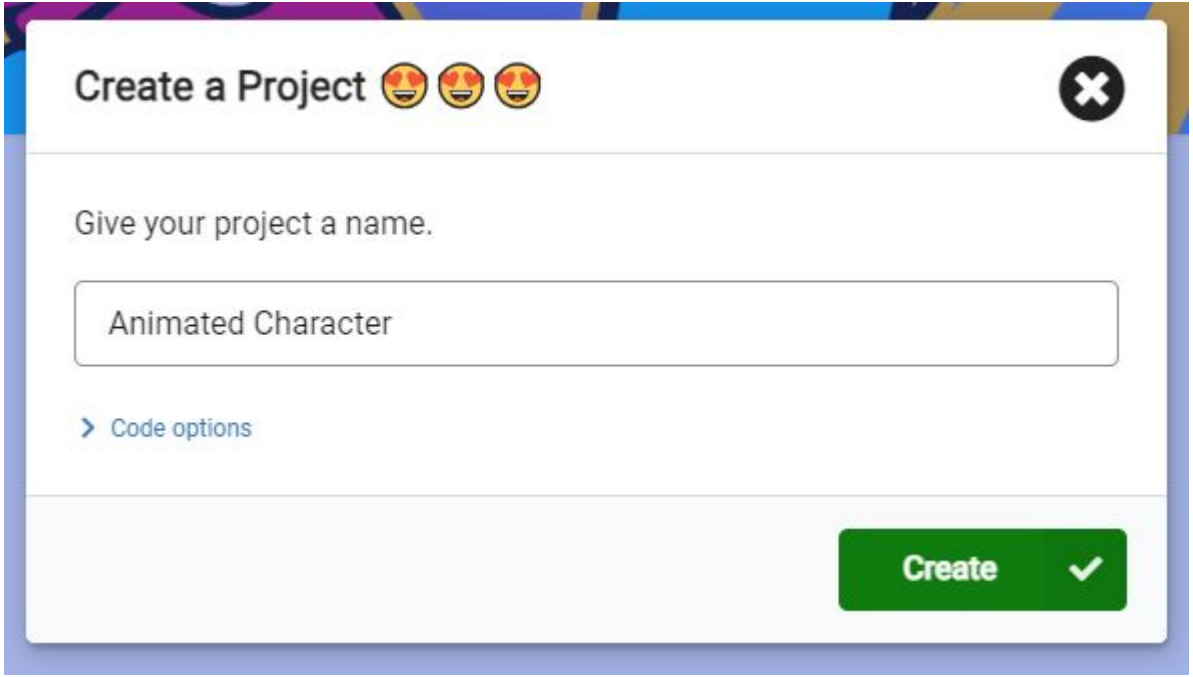


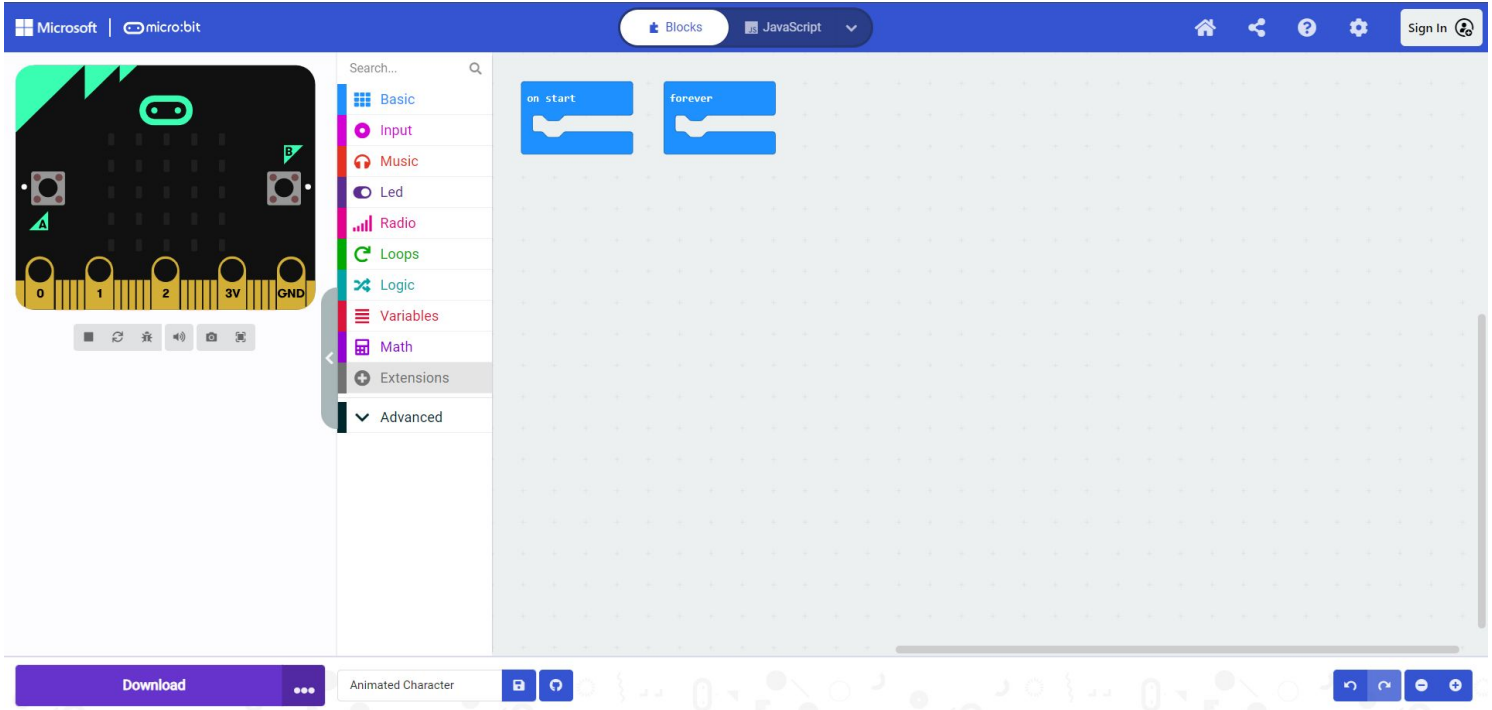
Time to Explore

https://makecode.microbit.org/

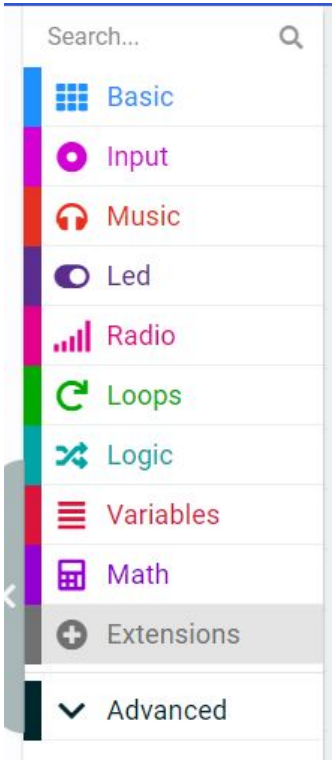


Name Your Project



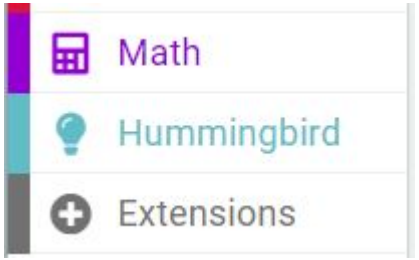

Microsoft
micro:bit
Blocks
JavaScript
Sign In
Search...
Basic
Input
Music
Led
Radio
Loops
Logic
Variables
Math
Extensions
Advanced
on start
forever
0
1
2
3V
GND
Download
Animated Character

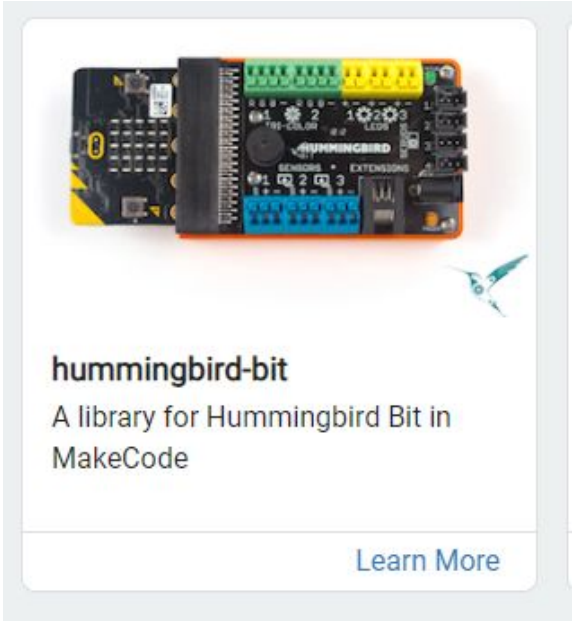
Add the Hummingbird Kit



Search bird

Click on the hummingbird-bit

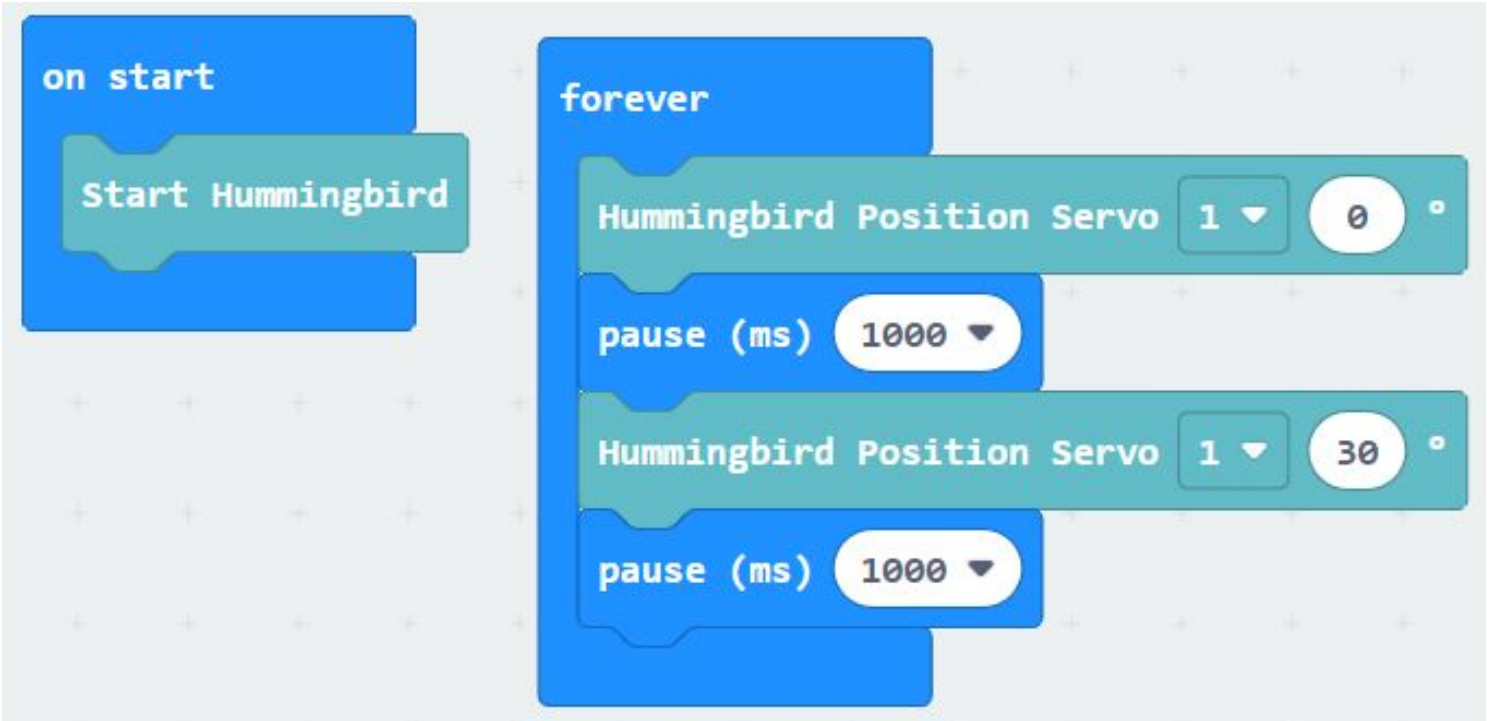




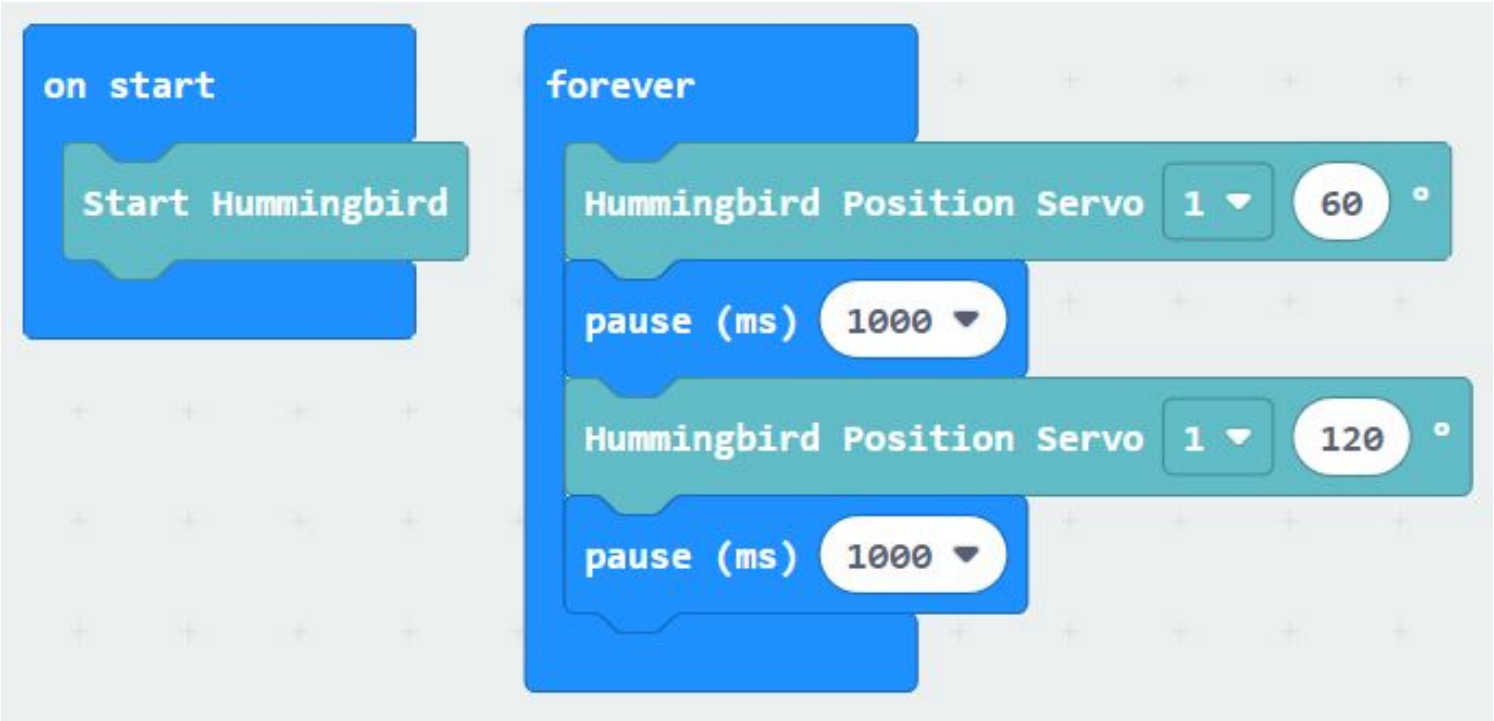
Project Introduction

Create an animated character. Use robotics and code to make the character move!

Sample Code


on start
Start Hummingbird
forever
Hummingbird Position Servo 1 0 °
pause (ms) 1000
Hummingbird Position Servo 1 30 °
pause (ms) 1000

Sample Code


on start
Start Hummingbird
forever
Hummingbird Position Servo 1 60 °
pause (ms) 1000
Hummingbird Position Servo 1 120 °
pause (ms) 1000

Clean Up