

Code... Setting up Neopixel Strip

The screenshot shows a web-based IDE interface for programming a microcontroller. On the left, there is a visual representation of an Arduino Uno board connected to a breadboard. A Neopixel strip is connected to the breadboard, with its ground pin connected to the GND pin of the Arduino and its VCC pin connected to the 5V pin. The breadboard also has a 5V regulator and a 10k pull-down resistor connected to the strip's data pin.

The central panel displays a search bar and a category list on the left, including Basic, Input, Music, Led, Radio, Loops, Logic, Variables, Math, Advanced, Neopixel, WiFi_BLE, LCD_Mini, and DC_Motor3. The main workspace contains the following code blocks:

- on start** block containing a **set strip to Neopixel at pin P16 with 30 leds as RGB (GRB format)** block.
- on button A pressed** block containing a **strip show color red** block.

At the bottom, there is a **Download** button and a file name **Neopixel Lights**.

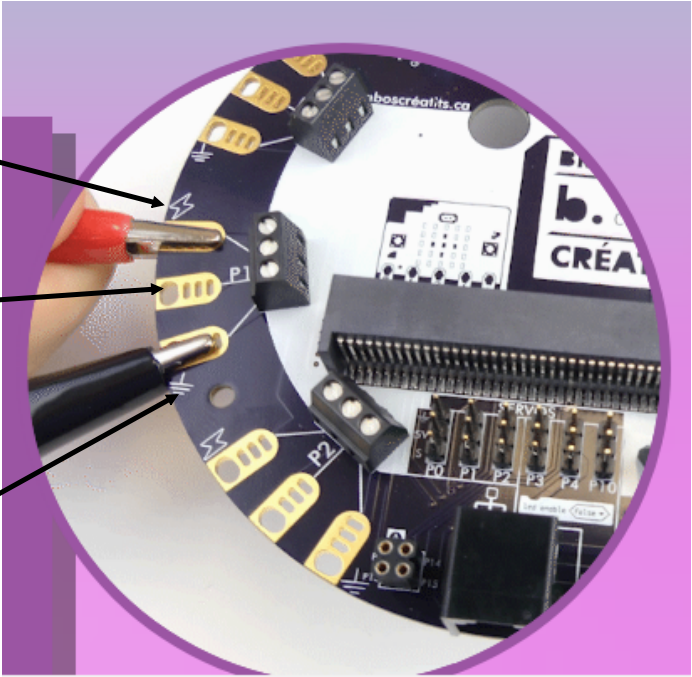
Wiring Setup...

Power

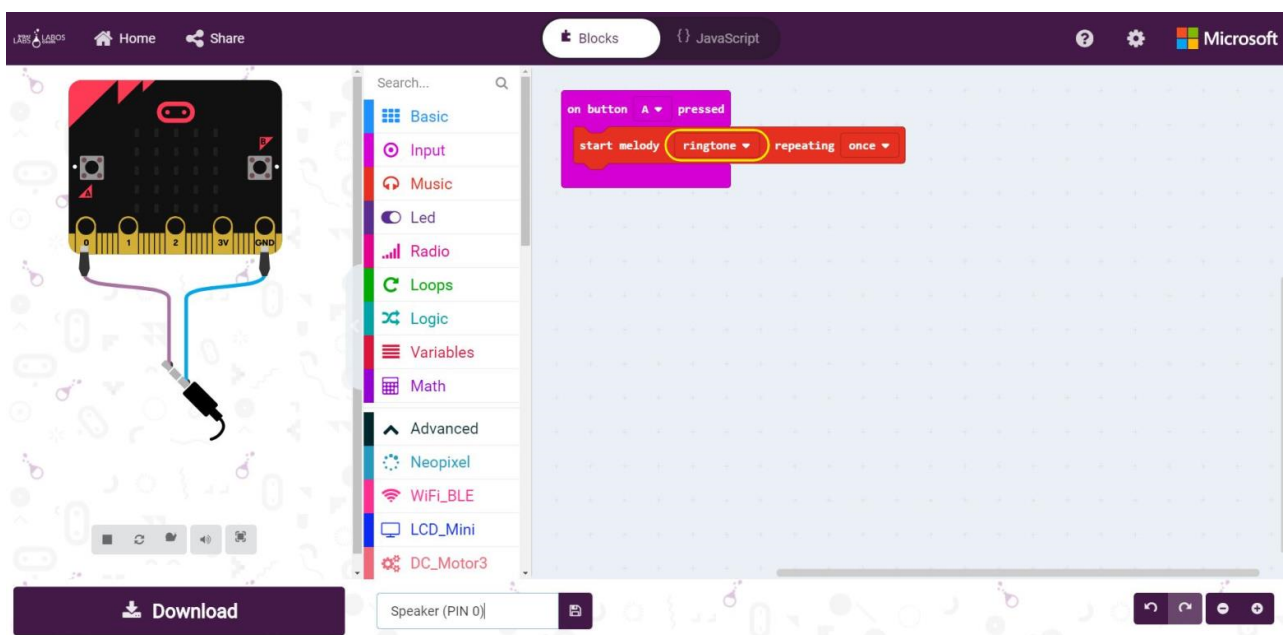
Data (Code)

*white wire

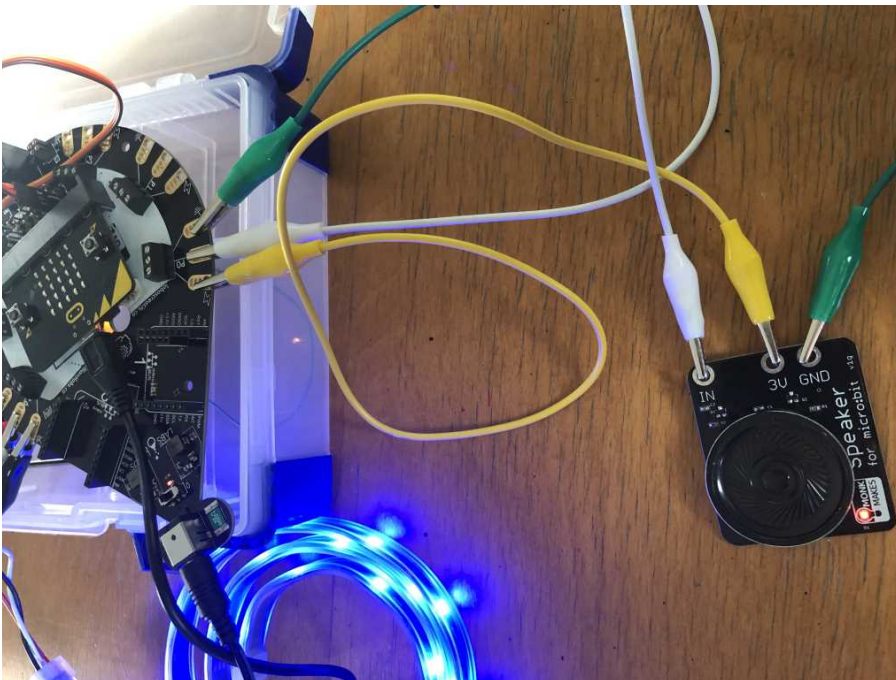
Ground



Code... Setting up a Speaker

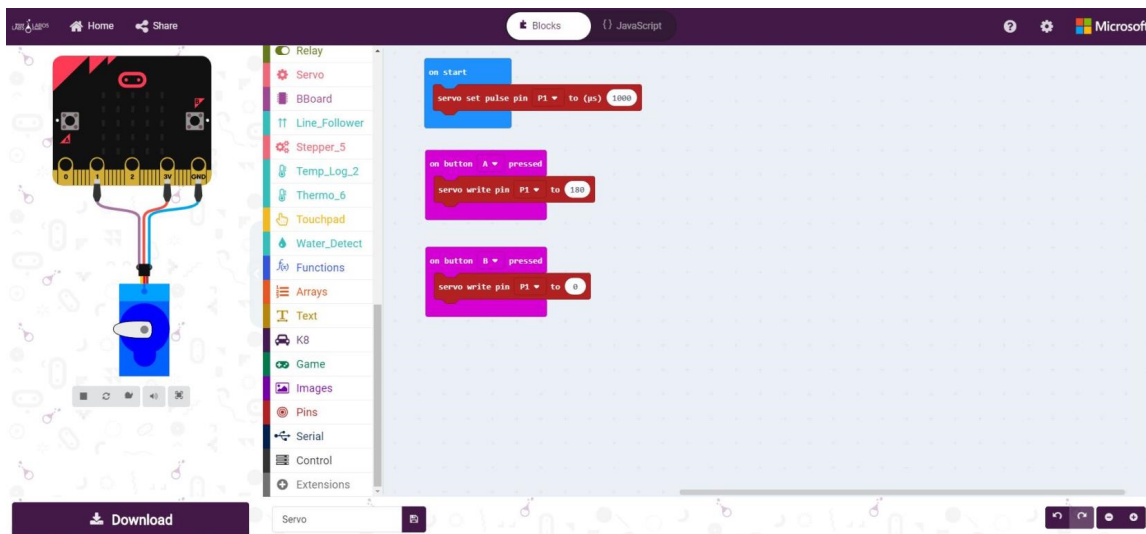


Wiring...



Speaker	b.Board
3V	Power
GND	Ground
IN	Middle

Code... Setting up a Servo



- NOTES...**
- Brown wire closest to micro:bit
 - battery pack needs to be plugged in

Code... Lights, Servo and Sound Programmed

The image shows a screenshot of a Scratch-like IDE interface for programming an Arduino. On the left, there is a circuit diagram of an Arduino Uno connected to a breadboard. The breadboard contains a NeoPixel strip, a servo motor, and a blue button. The right side of the interface shows a block-based code editor with the following code:

```
on start
  set strip to NeoPixel at pin P16 with 30 leds as RGB (GRB format)
  servo set pulse pin P8 to (µs) 1000

on button A pressed
  start melody wawawawaa repeating once

on button B pressed
  strip show color blue

on button A+B pressed
  servo write pin P1 to 180
  pause (ms) 500
  servo write pin P1 to 0
```

The code is written in a block-based style with a search bar on the left and a 'Blocks' tab at the top right. The code includes an 'on start' block, an 'on button A pressed' block, an 'on button B pressed' block, and an 'on button A+B pressed' block. The 'on start' block contains a 'set strip to NeoPixel at pin P16 with 30 leds as RGB (GRB format)' block and a 'servo set pulse pin P8 to (µs) 1000' block. The 'on button A pressed' block contains a 'start melody wawawawaa repeating once' block. The 'on button B pressed' block contains a 'strip show color blue' block. The 'on button A+B pressed' block contains a 'servo write pin P1 to 180' block, a 'pause (ms) 500' block, and a 'servo write pin P1 to 0' block.