



Lit Sleeve

Linda Rueda Ramirez



Concept

I wanted to do some interactive movement and a wearable device with the Circuit playground.

I know that the circuit playground itself is small to light up on wearables. Therefore, I decided to connect with the LED strip for the help light up more and a long extension.

Yes there was a struggle while I was working on this. There were some issues with the code of the position of the Circuit playground.

MakeCode

The screenshot shows the MakeCode Blocks editor interface. At the top, there are tabs for 'BLOCKS' and 'JAVASCRIPT', along with a search icon, a settings gear, and the Microsoft logo. A search bar is located on the left side. Below the search bar is a vertical menu with various categories: LIGHT, INPUT, MUSIC, NETWORK, LOOPS, LOGIC, VARIABLES, MATH, and ADVANCED. The main workspace contains a script starting with an 'on start' block, followed by a 'set strip to create strip on A1 with 19 pixels' block. Below this are four 'on tilt' gesture blocks: 'on tilt right' (set all pixels to green), 'on tilt left' (set all pixels to orange), 'on tilt up' (set all pixels to pink), and 'on tilt down' (set all pixels to black). At the bottom, there is a file name field containing 'LRR_Final' and a save icon.

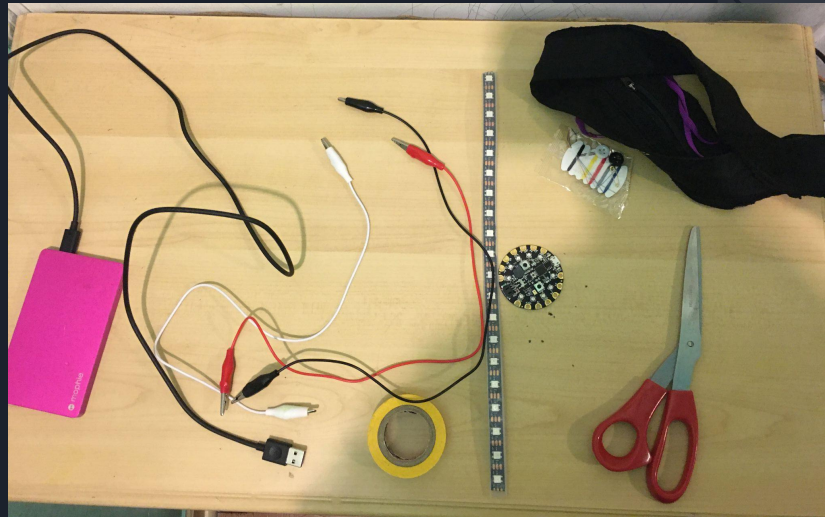
The screenshot shows the MakeCode JavaScript editor interface. At the top, there are tabs for 'BLOCKS' and 'JAVASCRIPT', along with a search icon, a settings gear, and the Microsoft logo. A search bar is located on the left side. Below the search bar is a vertical menu with various categories: LIGHT, INPUT, MUSIC, NETWORK, LOOPS, LOGIC, VARIABLES, MATH, and ADVANCED. The main workspace contains JavaScript code for handling tilt gestures. The code is as follows:

```
1 input.onGesture(Gesture.TiltRight, function () {
2   strip.setAll(0x00ff00)
3 })
4 input.onGesture(Gesture.TiltLeft, function () {
5   strip.setAll(0xff8000)
6 })
7 input.onGesture(Gesture.TiltUp, function () {
8   strip.setAll(0xff00ff)
9 })
10 input.onGesture(Gesture.TiltDown, function () {
11   strip.setAll(0x000000)
12 })
13 let strip: light.NeoPixelStrip = null
14 strip = light.createStrip(pins.A1, 19)
15
```

At the bottom, there is a file name field containing 'LRR_Final' and a save icon.

Materials

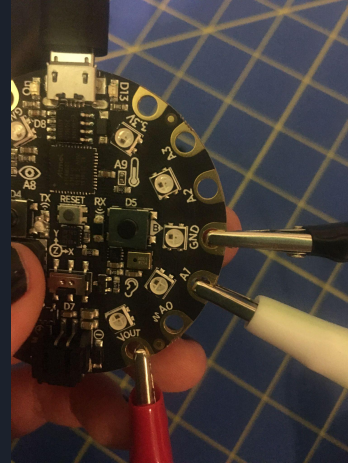
- MakeCode
- Circuit Playground
- LED Strip
- 3 Alligator Clips (red, black, and White)
- Sewing Kit
- Scissor
- A sleeve
- Tape
- USB connector
- Portable battery Charger



Follow the process

01 Connect the alligator clips to the right places on the circuit. Connect Red to Vout, White to A1, and Black to GND.

02 Connect the alligator clips to the LED strips to the right places. Connect Red to +5v, White to Di, and Black to negative.



Target audience

03

I slide the LED strip inside the sleeve. Until it got to the end of the strip, I put tape for to help the alligator clips stay connected with the LED strip.



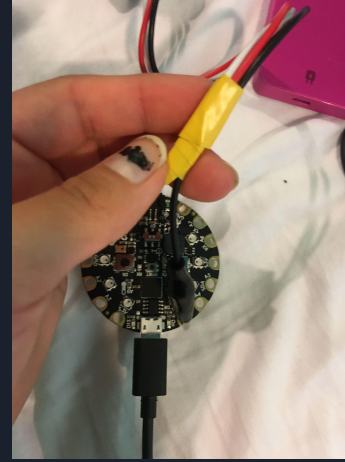
04

I put more tape around the alligator clips for the help stay in one place and not make a mess in the clip.



05

I add more tape around when it got to near the circuit for to help stay in its place.



06

I had close the sleeve hole that I had opened for to insert the LED strips.



07

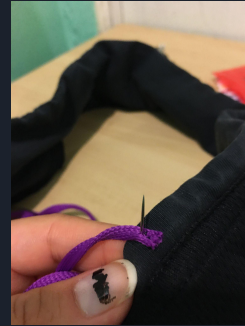
Sew the Playground circuit to the sleeve so it could be attach during the arm movement.





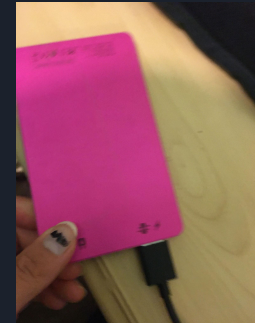
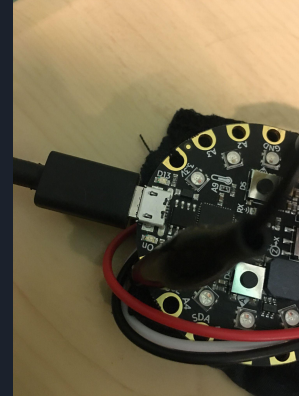
08

Sew the strings on the sleeve, so can be useful for to tie around the arm.



09

Connect the USB plus to the circuit playground and to the portable battery.



Final Product

