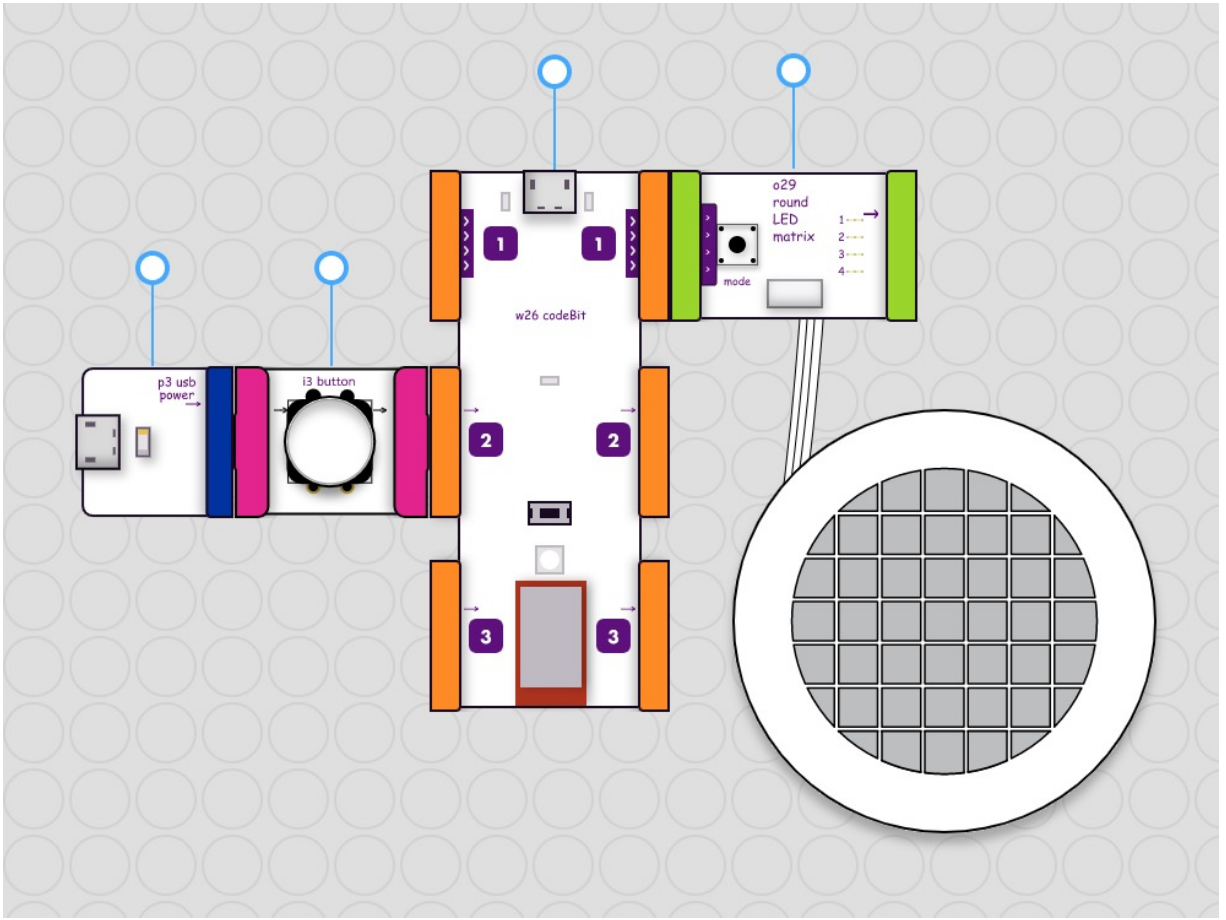
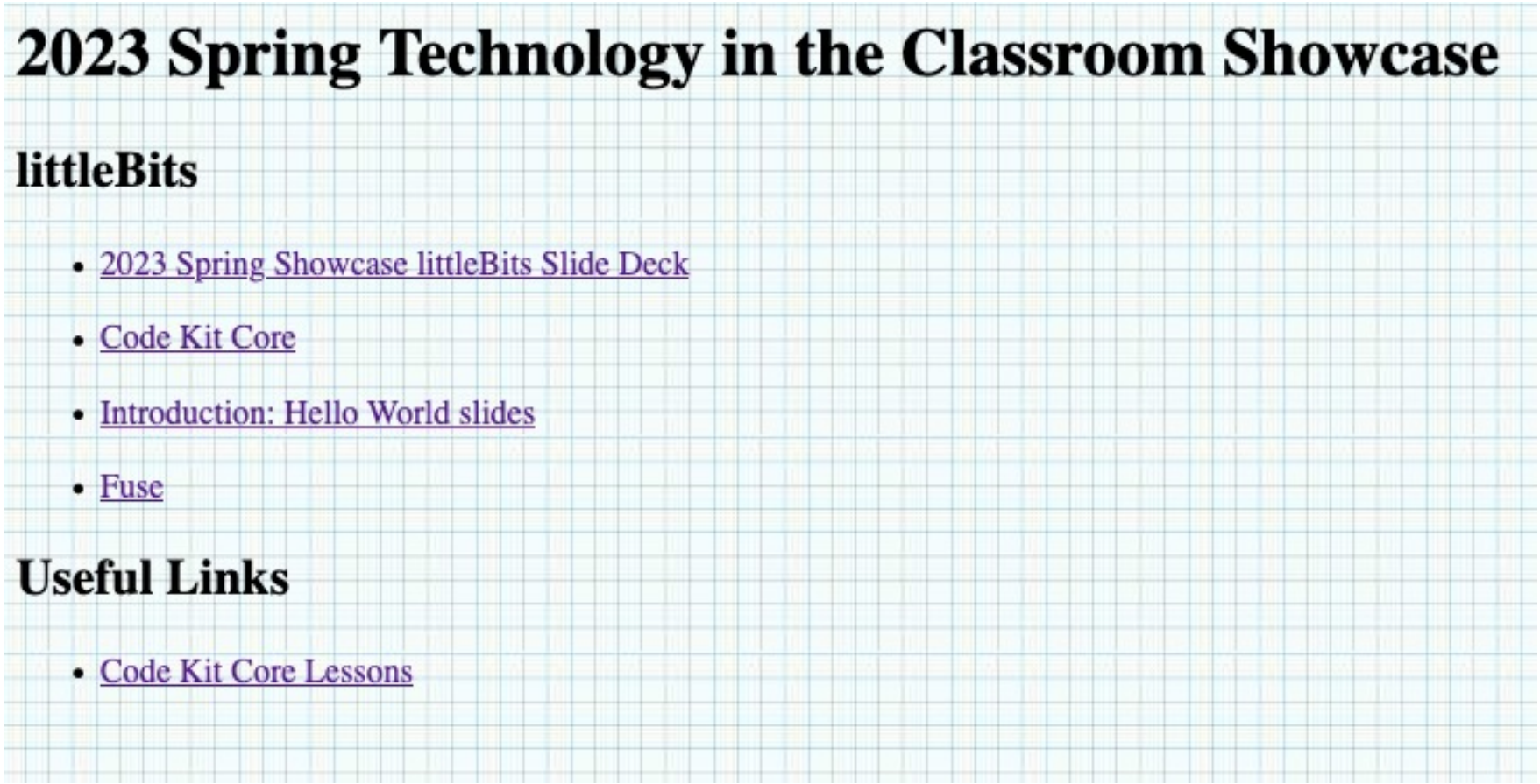
2023 STiCS littleBits Session

littleBits

- Introduction
- Hello World
- Blink Light
- Switch Controlled Light
- Slide Switch Controlled Light
- Sound
- Slide Switch Controlled Sound



https://trickel.org/thomas/skc/littleBits.html



2023 Spring Technology in the Classroom Showcase

littleBits

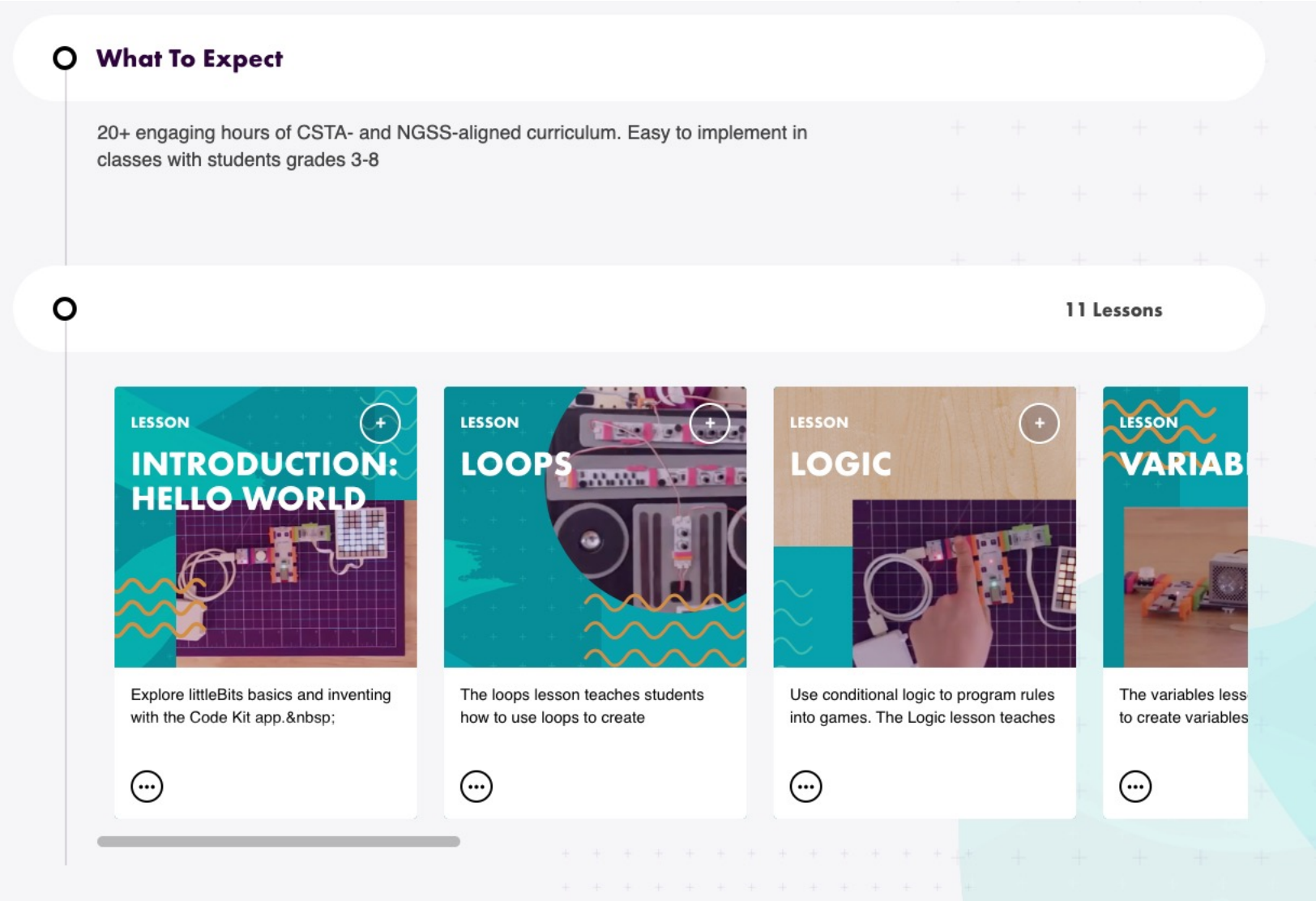
- 2023 Spring Showcase littleBits Slide Deck
- Code Kit Core
- Introduction: Hello World slides
- Fuse

Useful Links

- Code Kit Core Lessons

littleBits Code Kit

littleBits – Code Kit Core

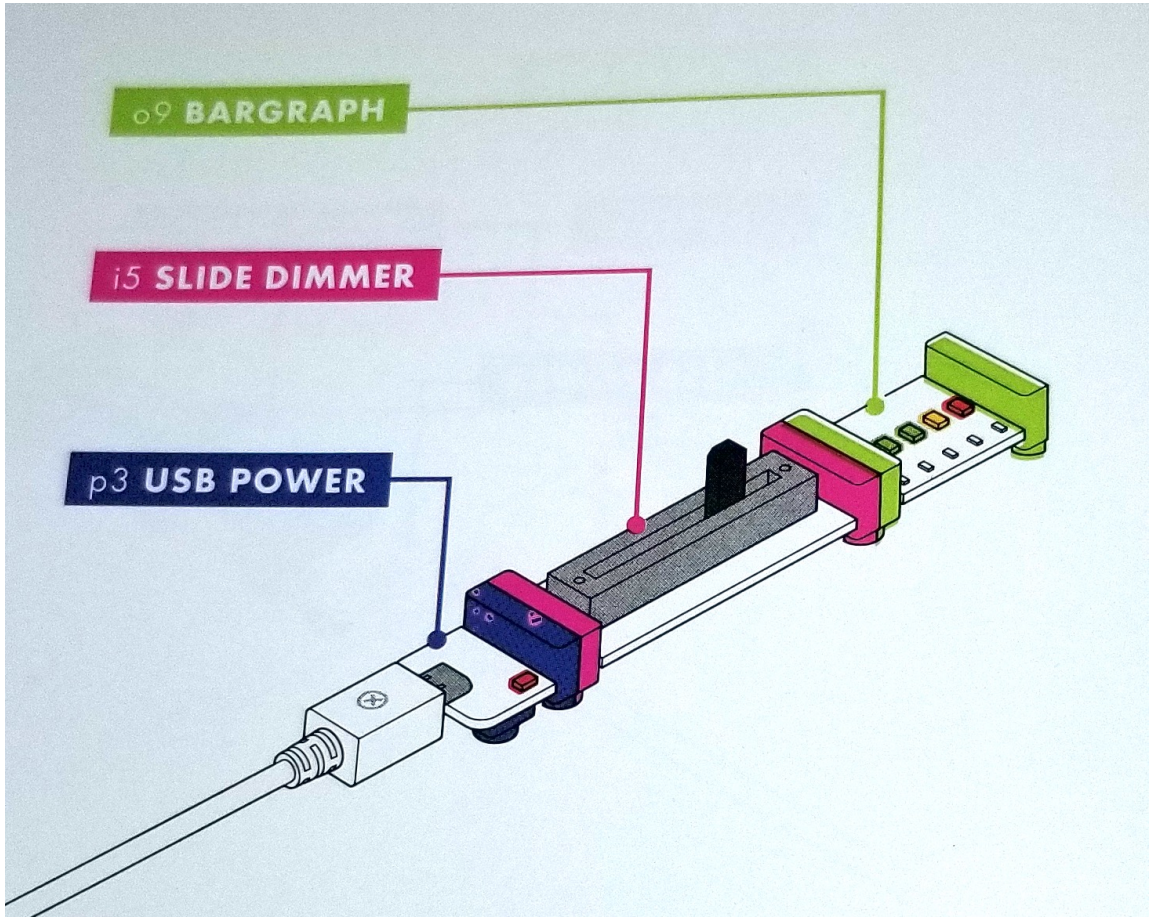


littleBits – Code Kit Core
Hello World Lesson Slides

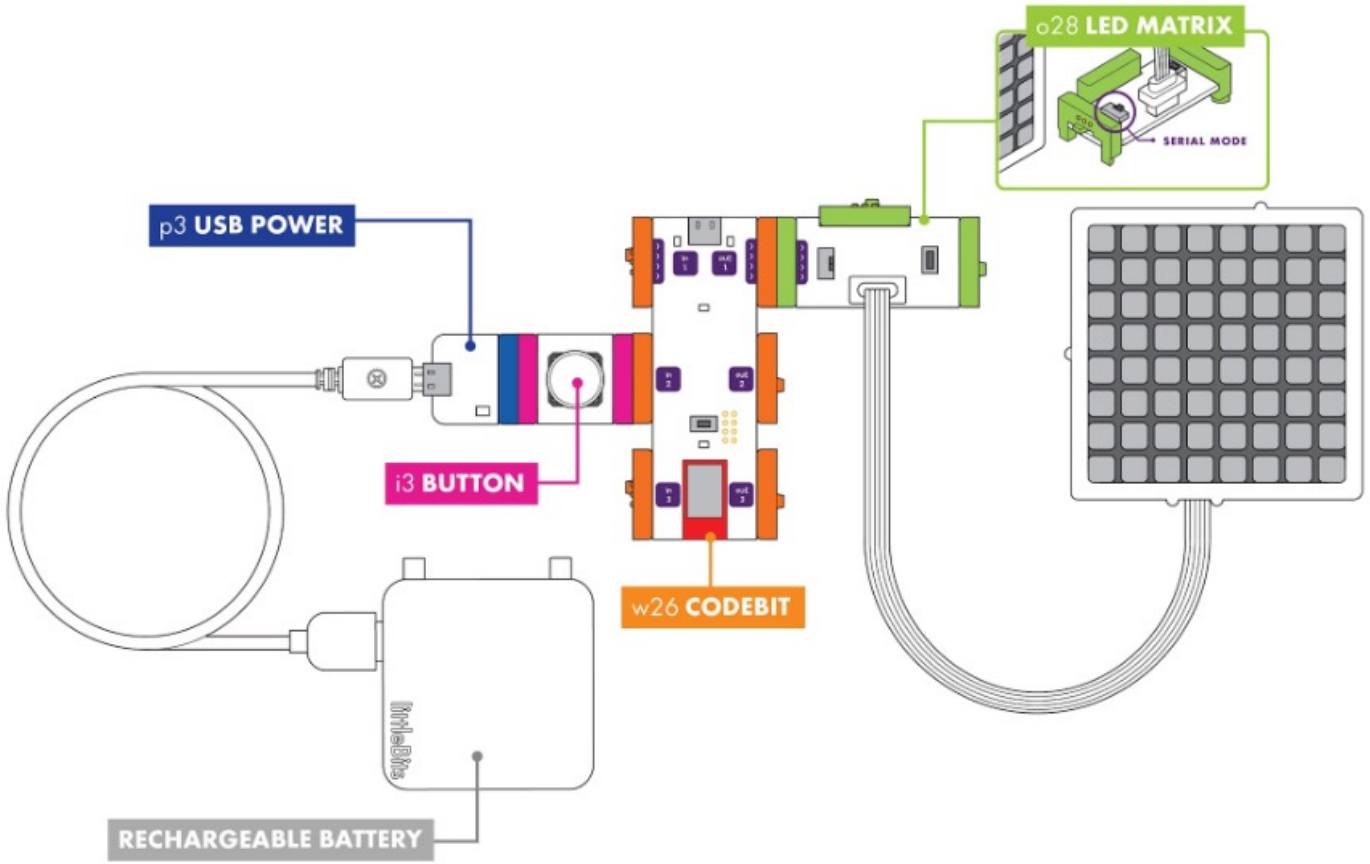
- trickel.org/thomas/skc/littleBits.html

littleBits

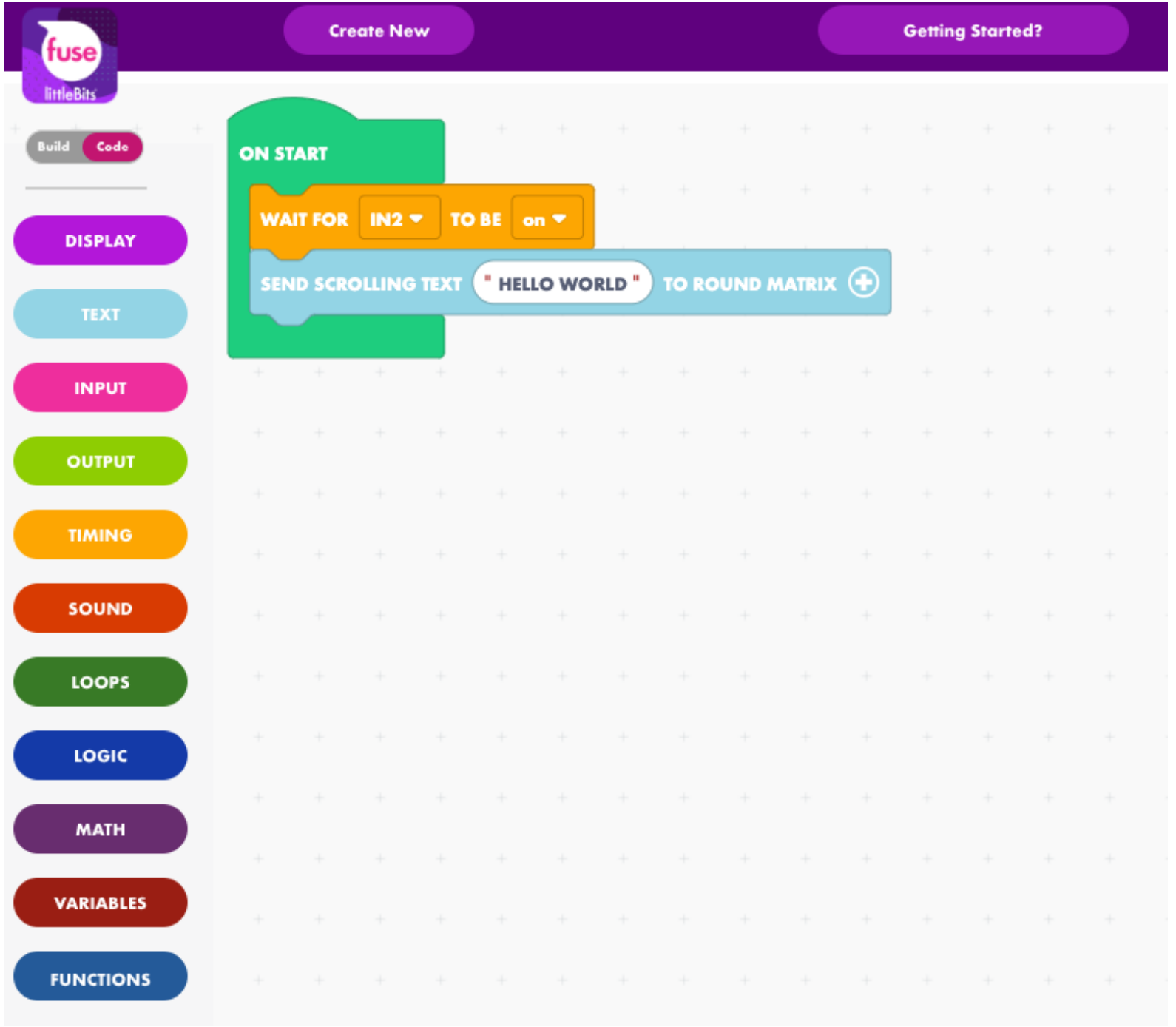
- Snap together
- Color coded
  - Blue – Power
  - Pink – Input
  - Green – Output
  - Orange – Connections
- Complexity hidden



Hello World

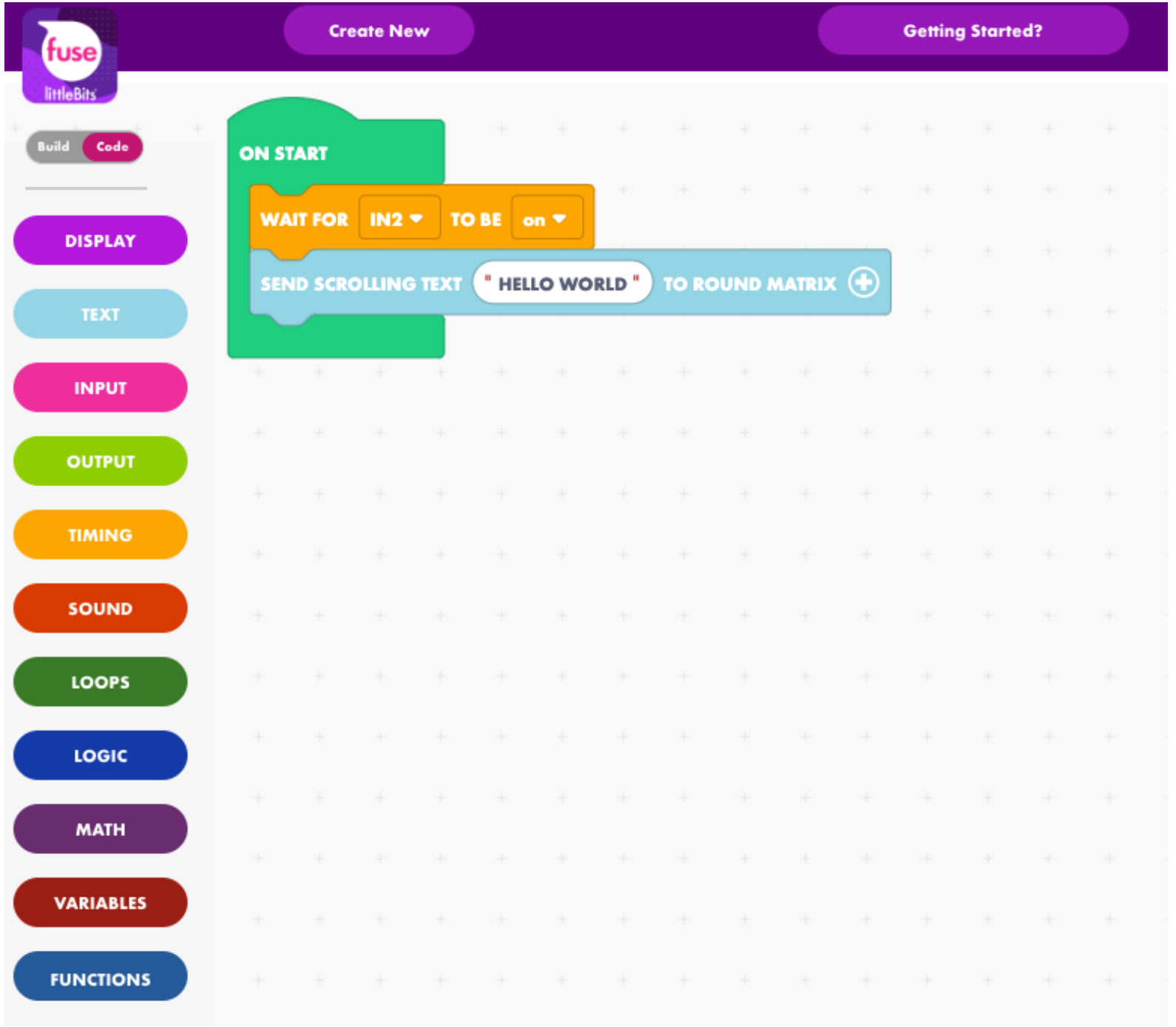

o28 LED MATRIX
SERIAL MODE
p3 USB POWER
i3 BUTTON
w26 CODEBIT
RECHARGEABLE BATTERY

Hello World


fuse
littleBits
Create New
Getting Started?
Build
Code
DISPLAY
TEXT
INPUT
OUTPUT
TIMING
SOUND
LOOPS
LOGIC
MATH
VARIABLES
FUNCTIONS
ON START
WAIT FOR IN2 TO BE on
SEND SCROLLING TEXT " HELLO WORLD " TO ROUND MATRIX

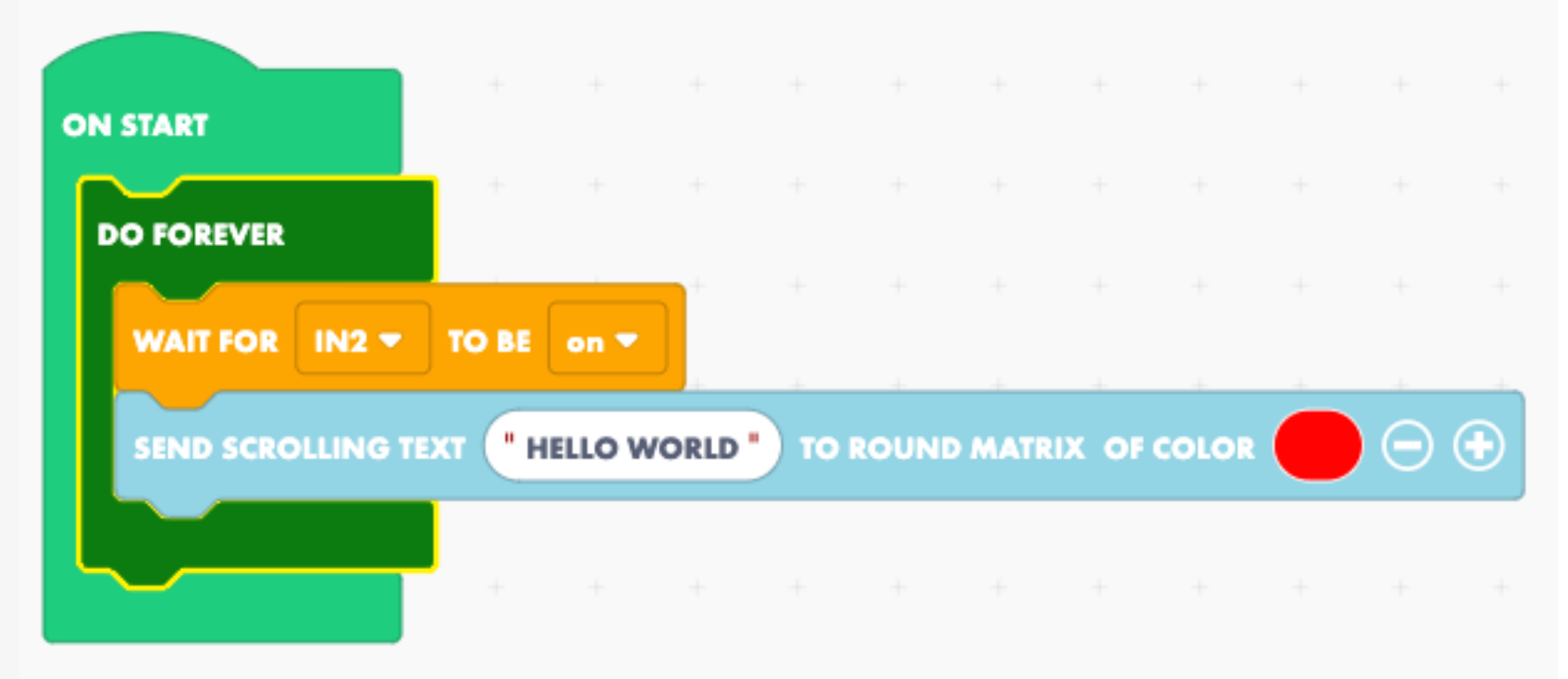
Hello World

- Make Hello World display each time the button is pressed



Hello World

- Make Hello World display each time the button is pressed



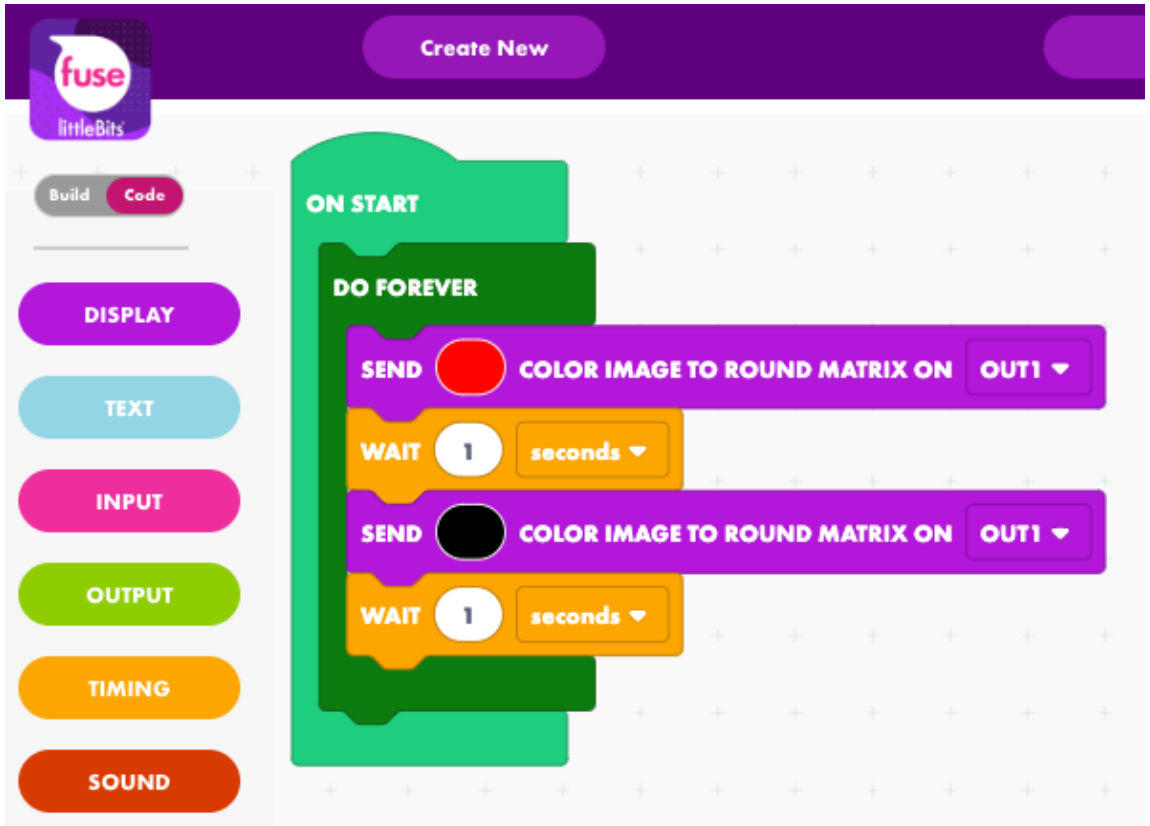
Blink Light

Blink Light

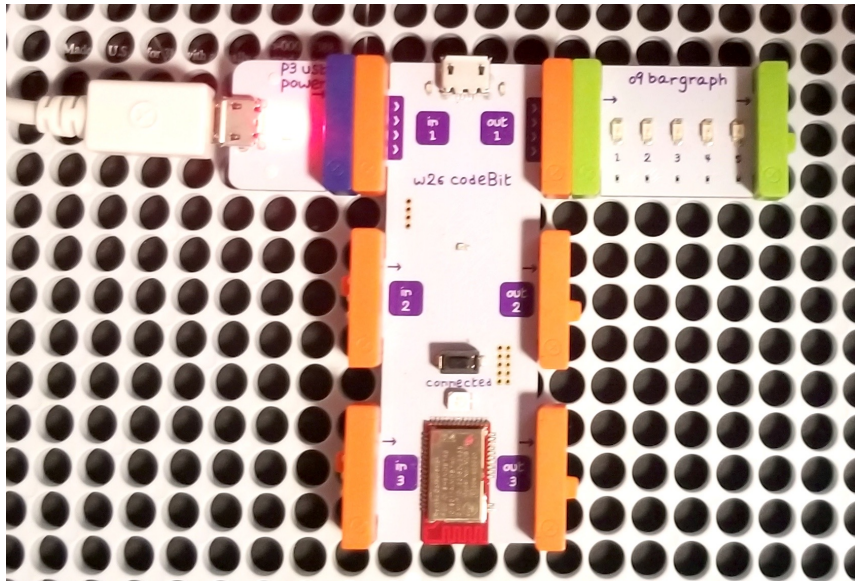
- Hardware
- Software

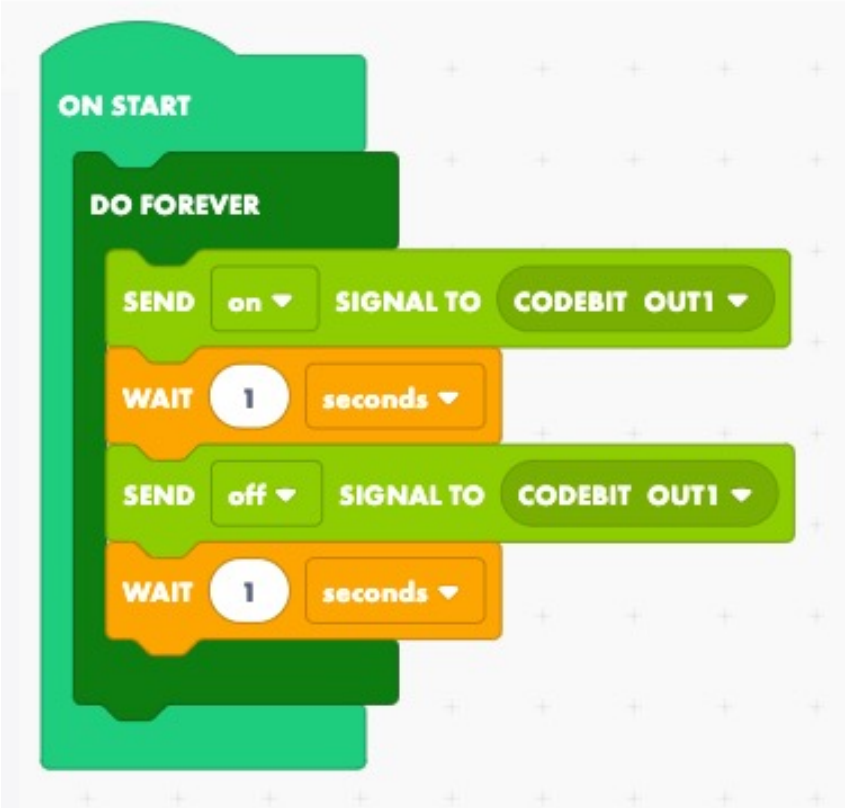
Blink Light – v1

- Same Hardware



Blink Light – v2



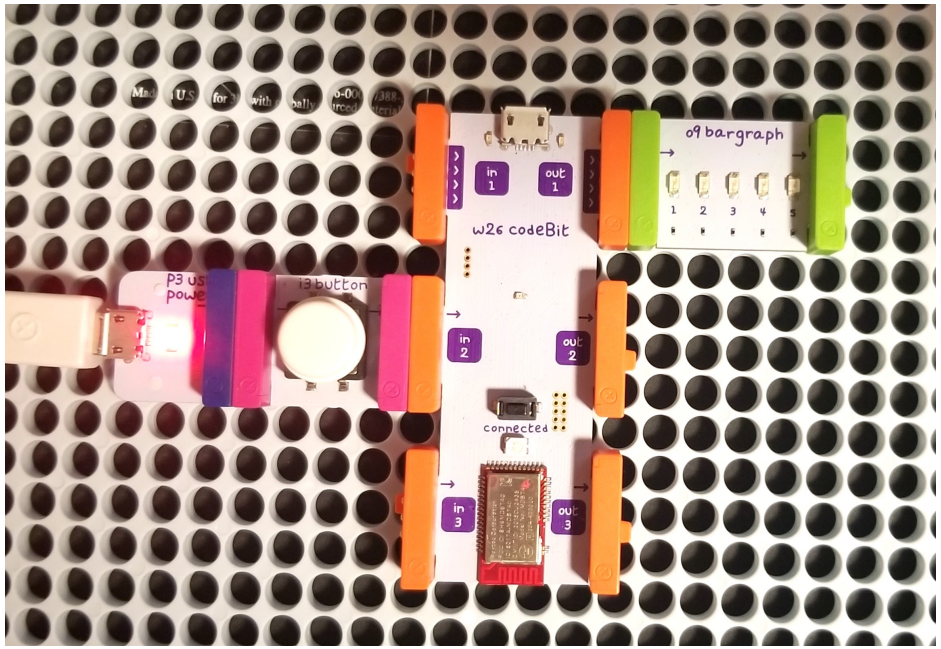


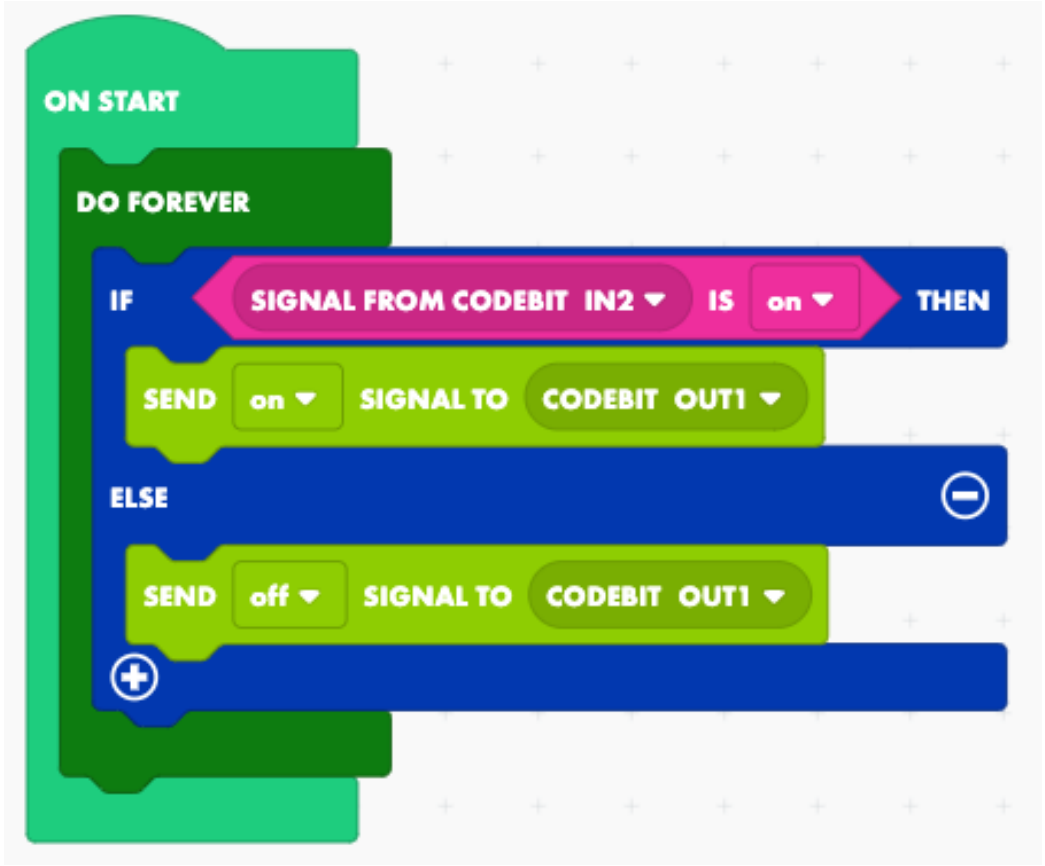
Switch Controlled Light

Switch Controlled Light

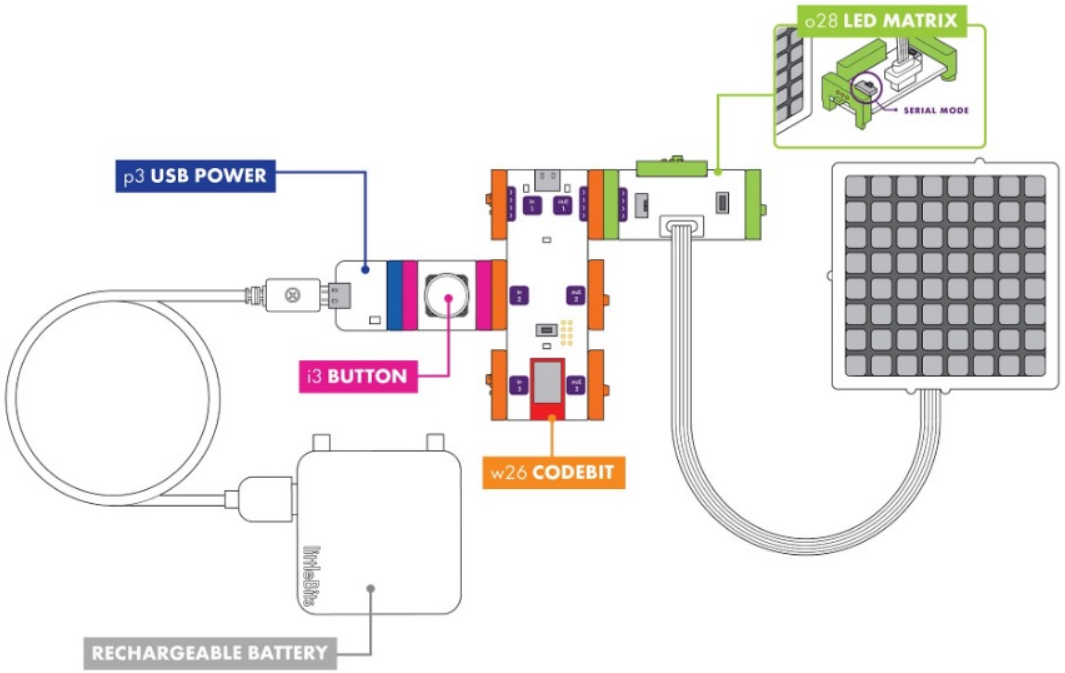
- Hardware
- Software

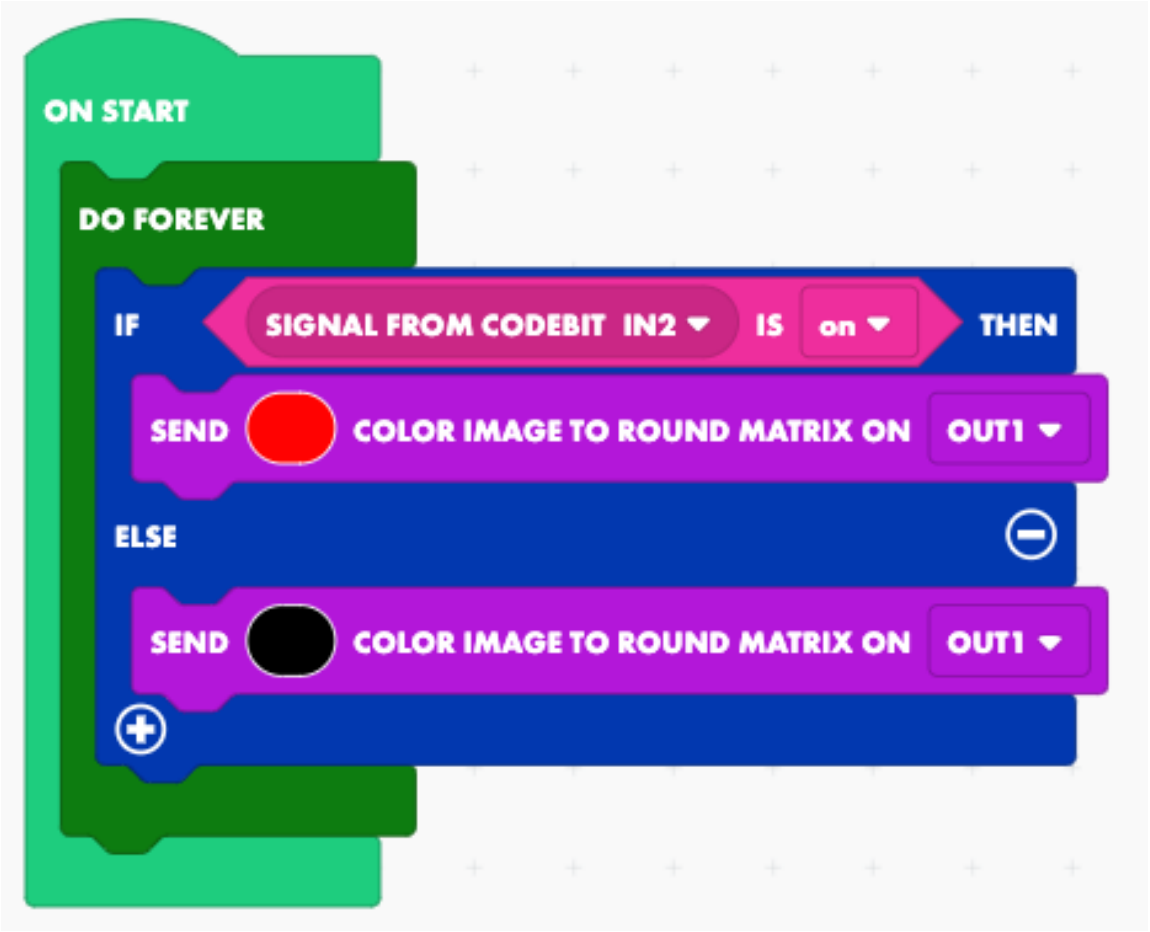
Slide Switch Controlled Light - v1



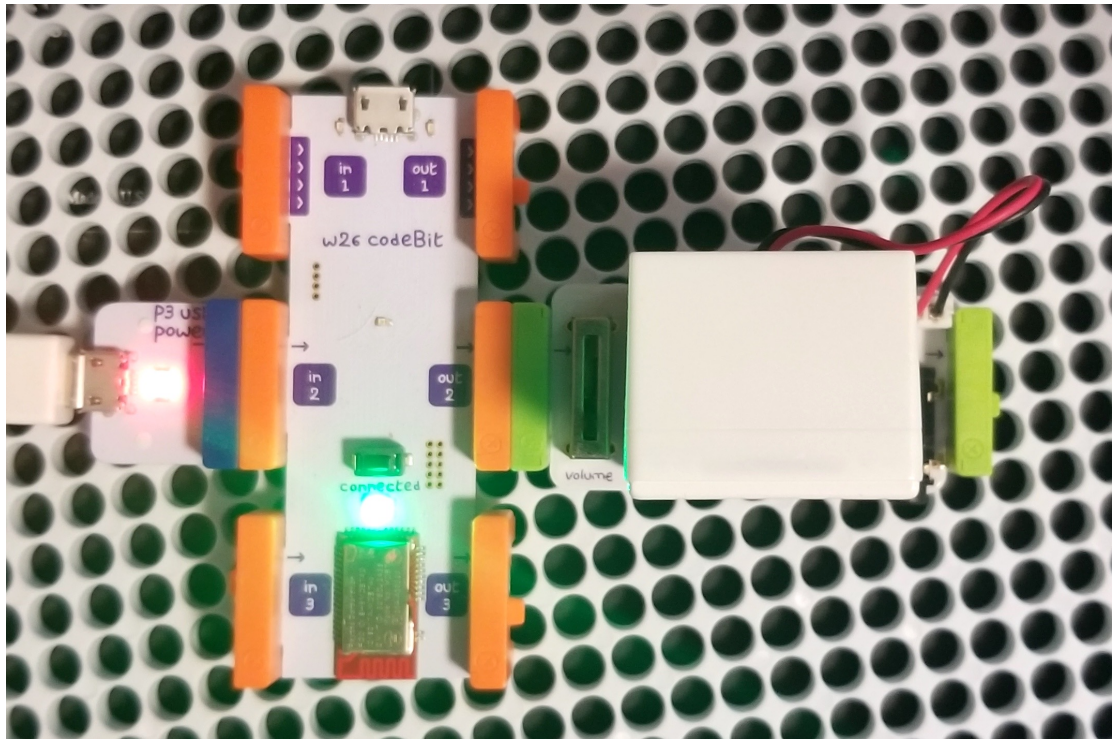


Slide Switch Controlled Light – v2





Sound


in 1
out 1
w26 codeBit
in 2
out 2
connected
volume
in 3
out 3

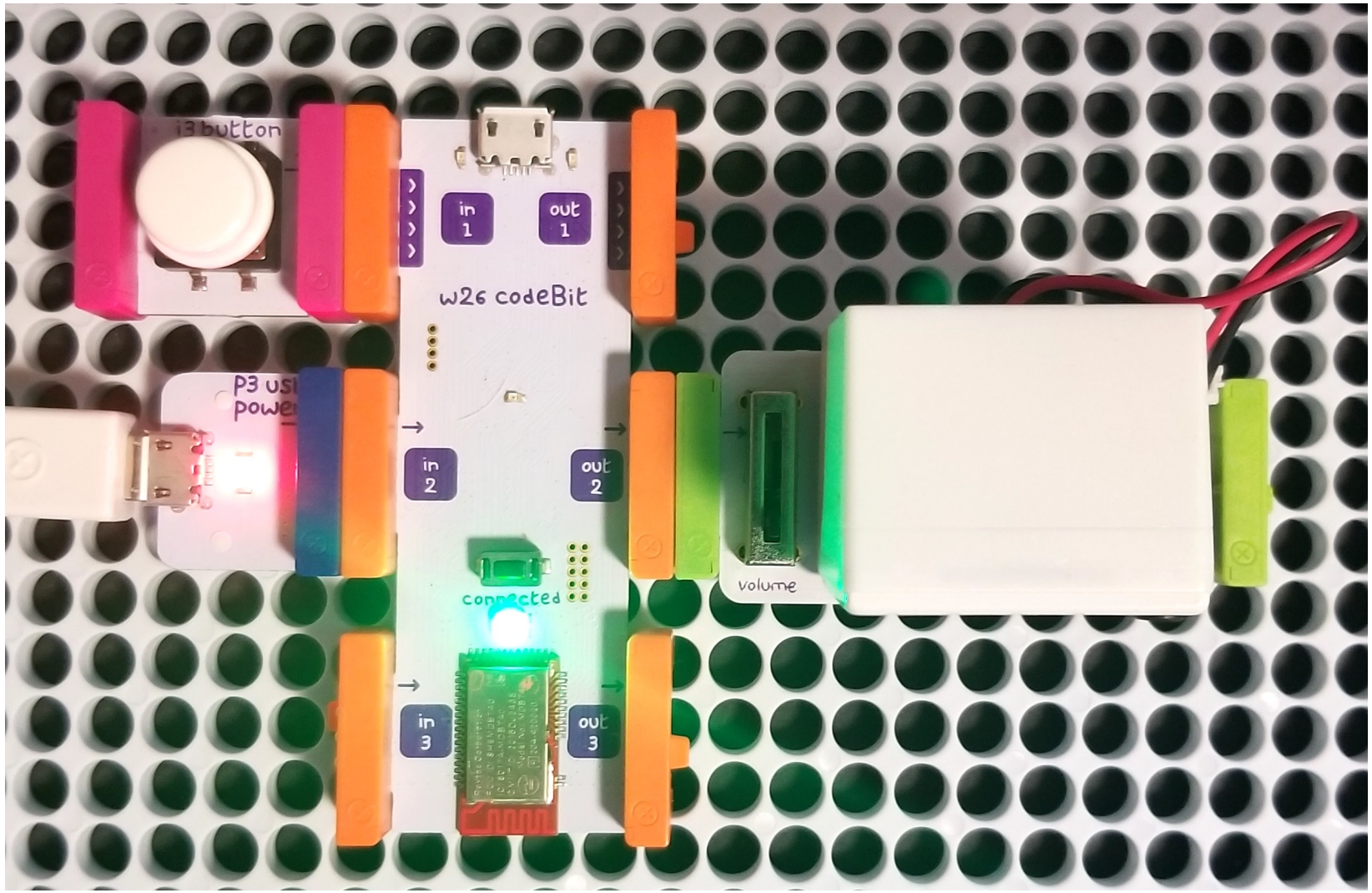

ON START
PLAY TONE ON OUTPUT
OUT2
262 HZ
TONE

Switch Controlled Sound

Switch Controlled Sound

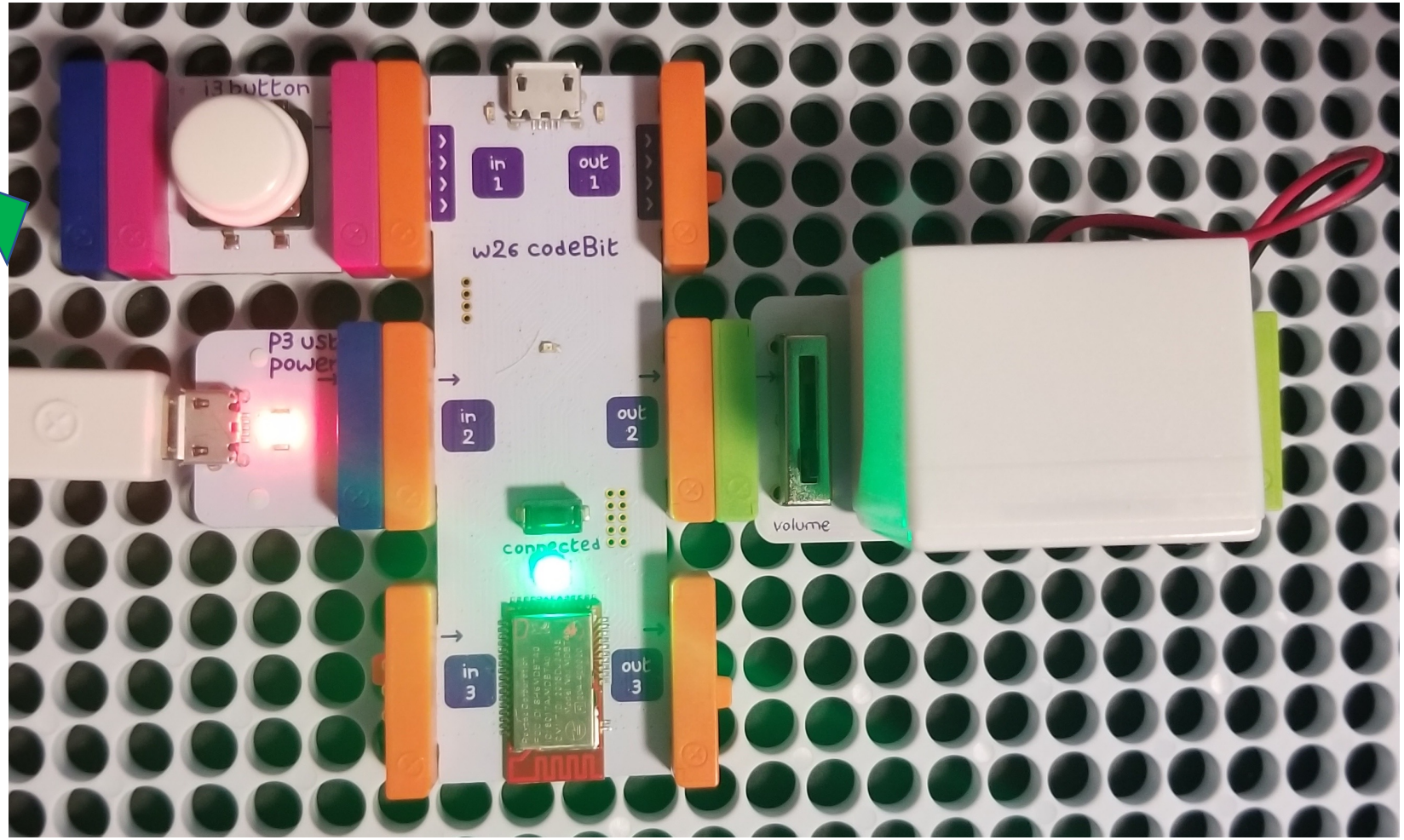
- Hardware
- Software

Switch Controlled Sound

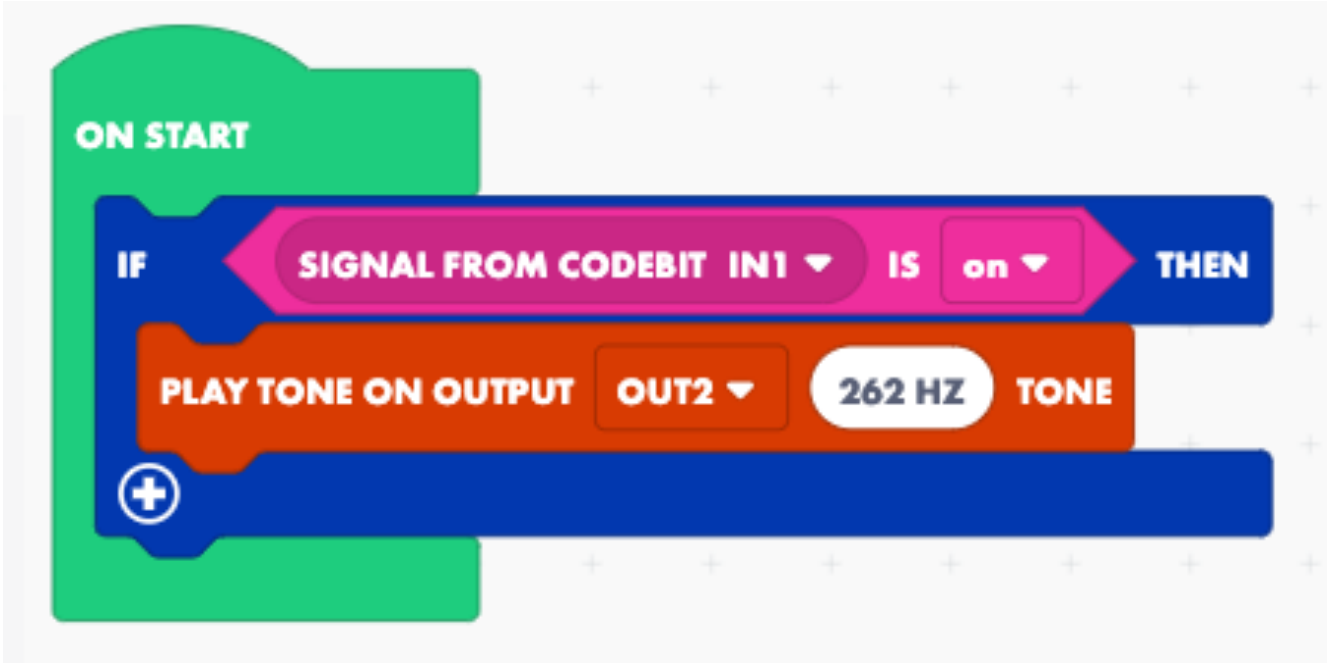


Switch Controlled Sound

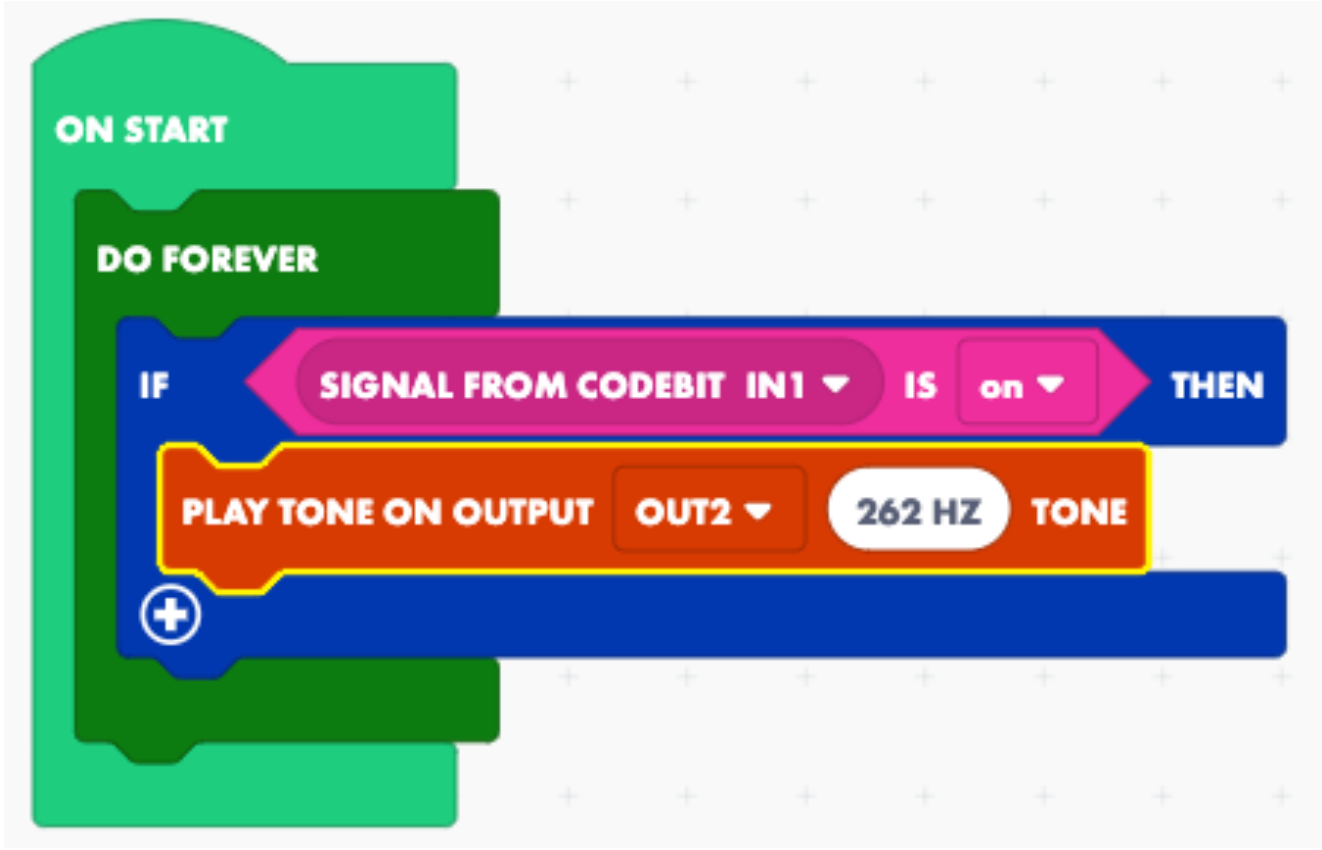
Addition of powerBit



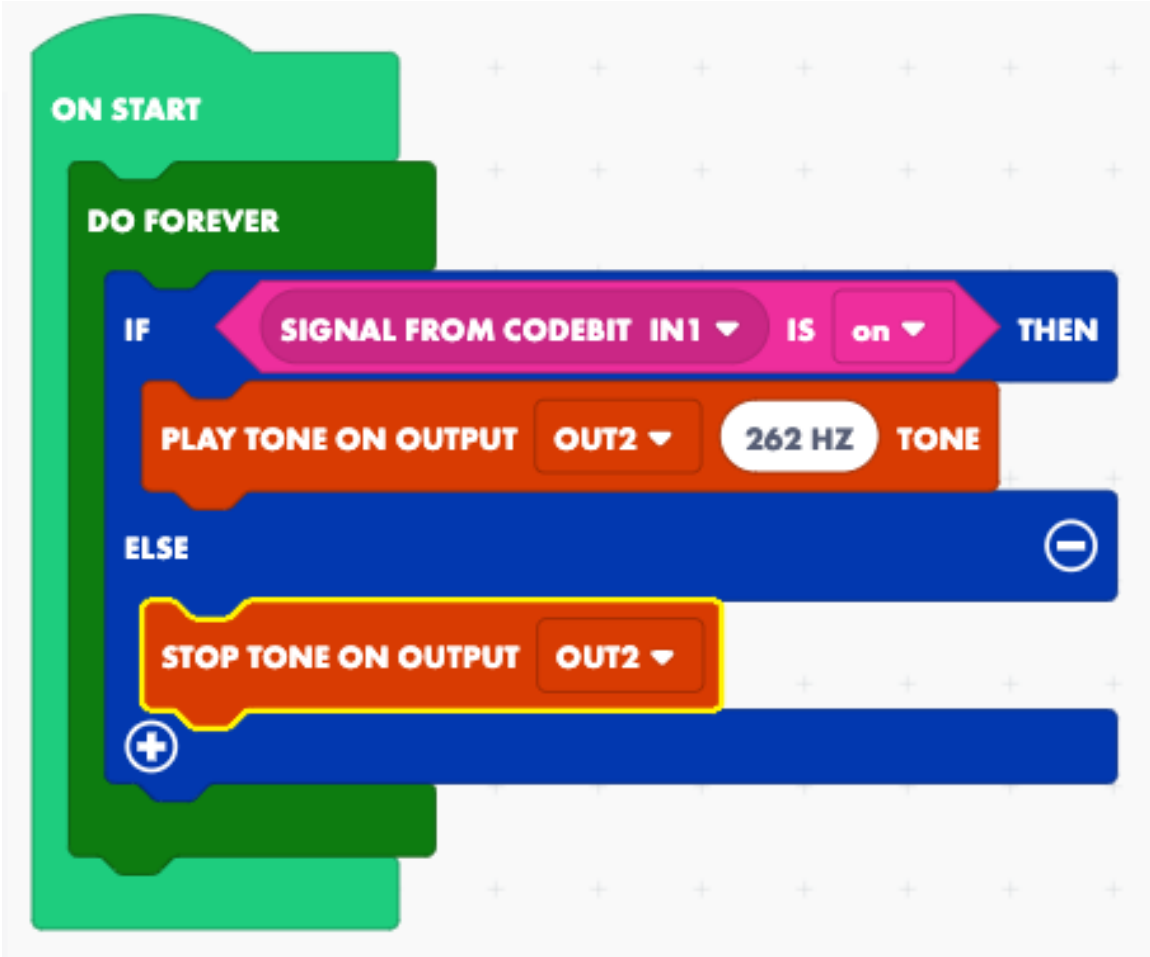
Switch Controlled Sound



Switch Controlled Sound

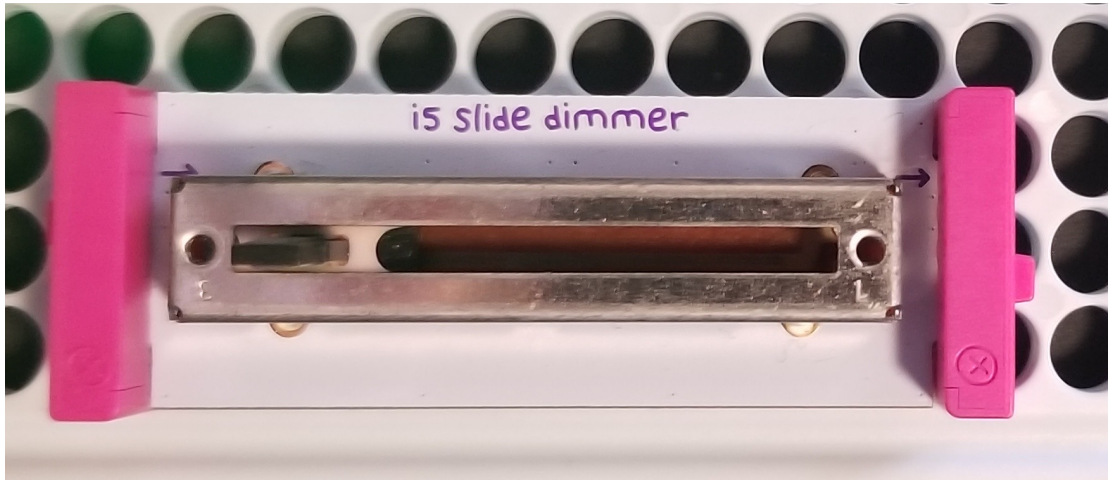


Switch Controlled Sound



Analog vs Digital

Slide Switch



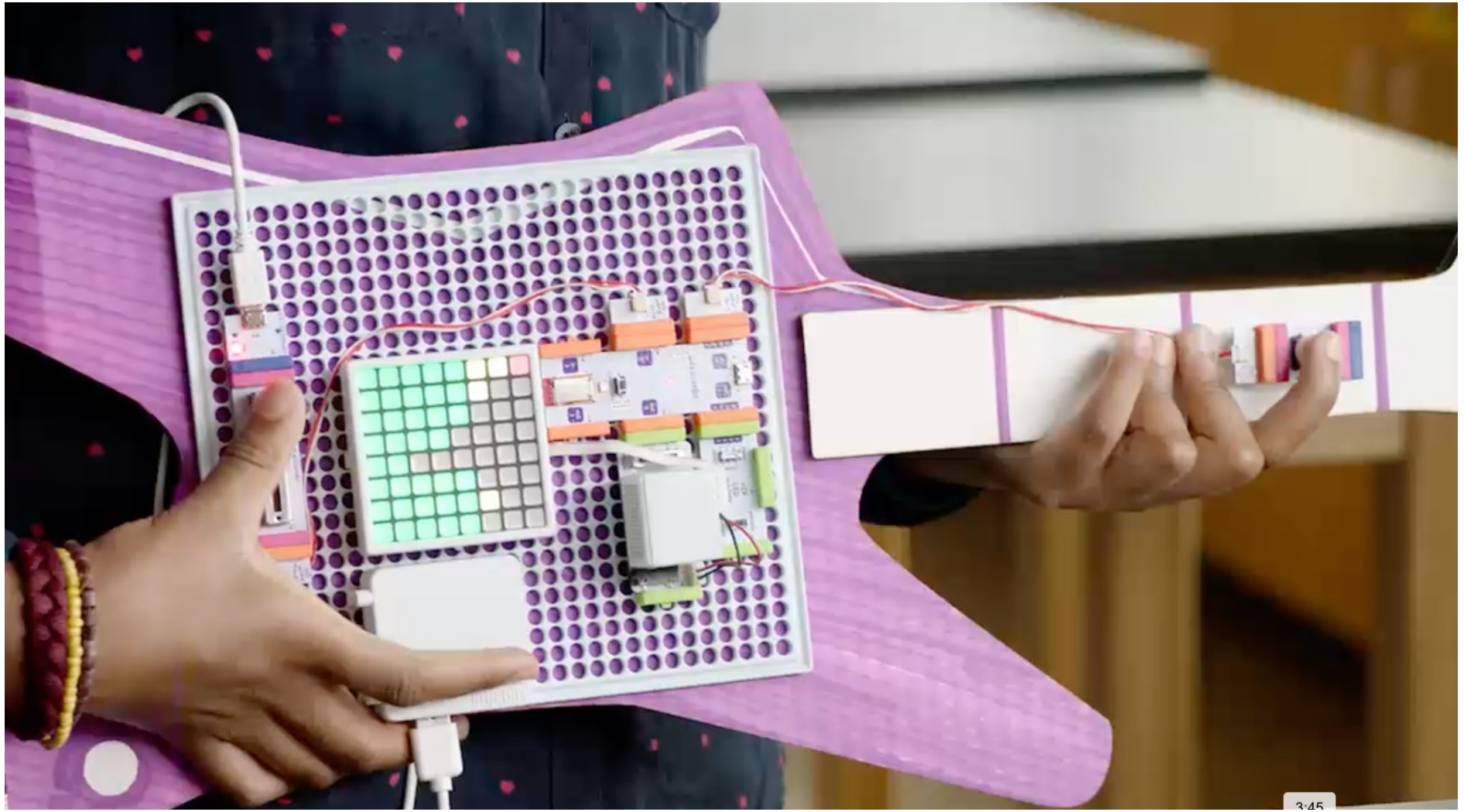
Slide Switch Controlled Sound

- Hardware
- Software

Slide Switch Controlled Sound

Slide Switch Controlled Sound

Rockstar Guitar

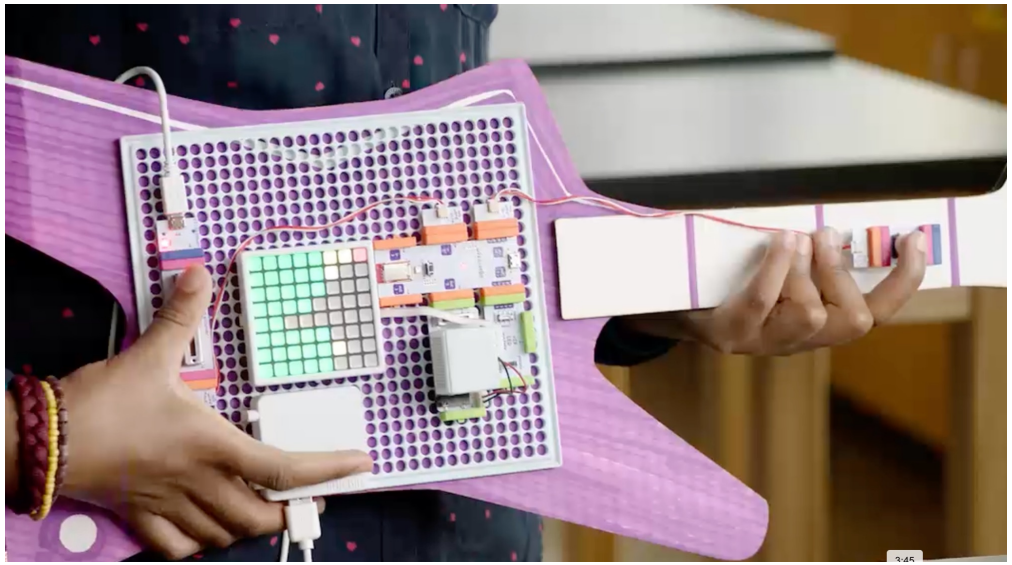


Rockstar Guitar

- Use push button switch to turn sound on and off
- Use slide switch to control pitch of sound

Extra Credit

- Use Round LED matrix to display graphic



Slide Switch Controlled Sound

Use push button switch to turn sound on and off
Use slide switch to control pitch of sound