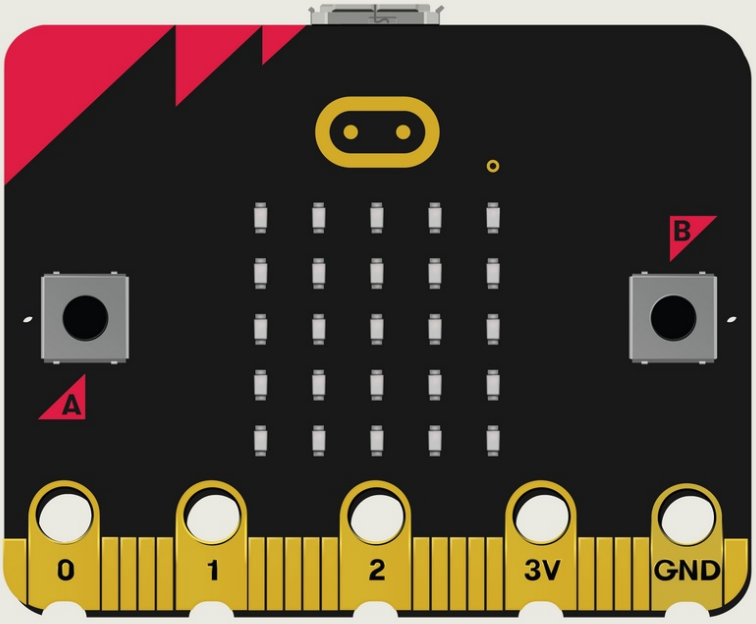
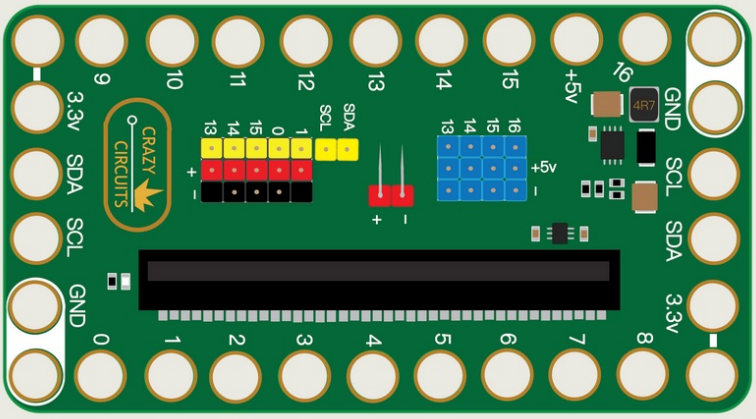
CH8-C - LED Matrix Larson

Program the built-in LED Matrix found on the micro:bit

Written By: Pete Prodoehl





INTRODUCTION

Program the built-in LED Matrix found on the micro:bit

We'll explore how we can control the LED Matrix to show information and animations.

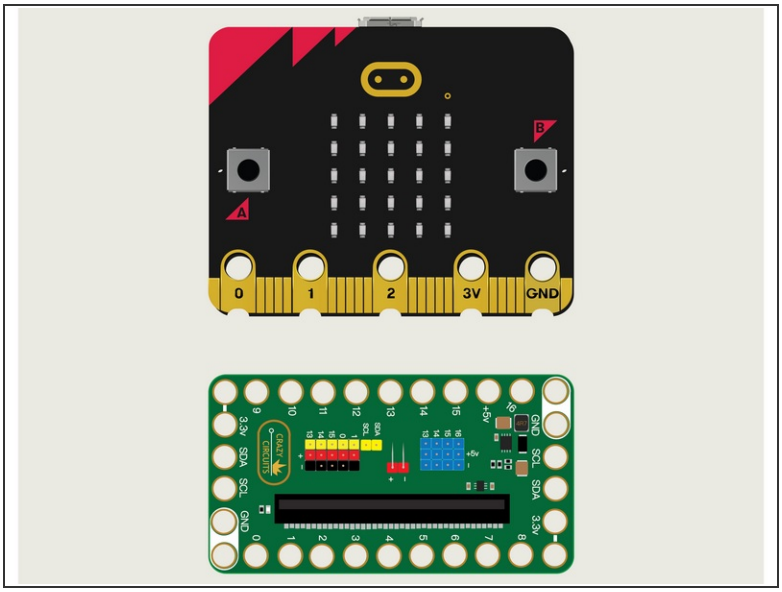
TOOLS:

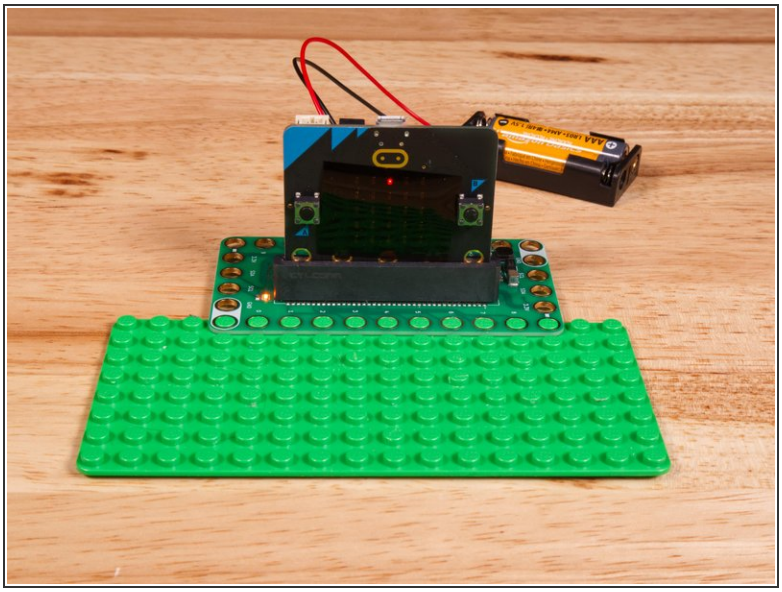
- Computer (1)

PARTS:

- Crazy Circuits Bit Board (1)
- micro:bit (1)

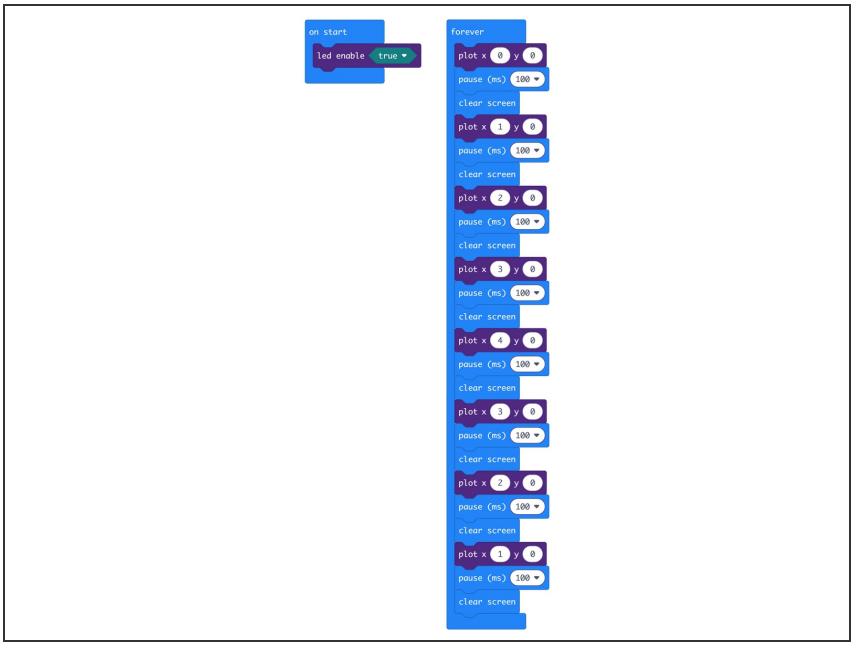
Step 1 — Prepare the micro:bit





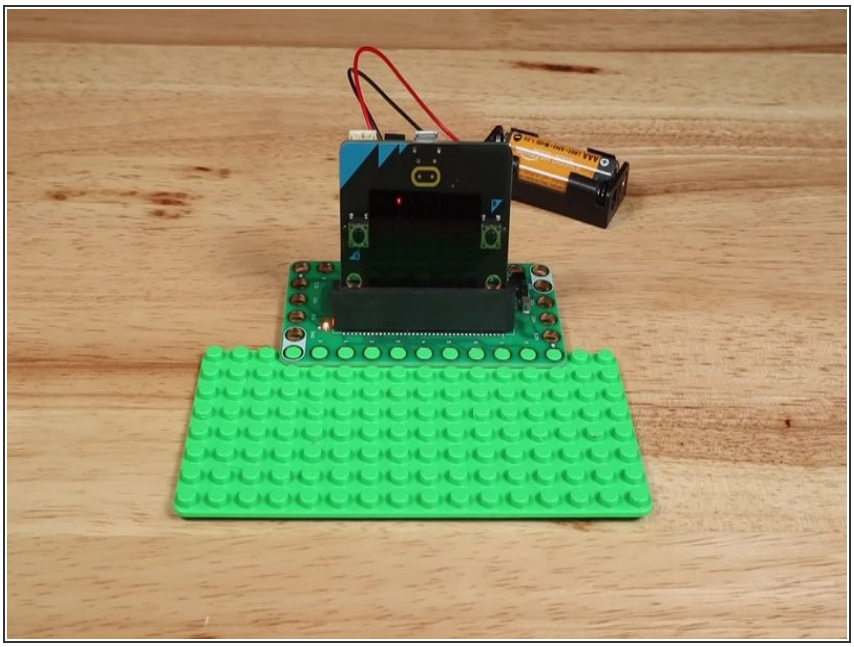
- For this guide we won't need Maker Tape or any components. We're just going to put the micro:bit into the Bit Board.
- We're only going to connect a USB cable and use the built-in LED Matrix found on the front of the micro:bit

Step 2 — Load the Code



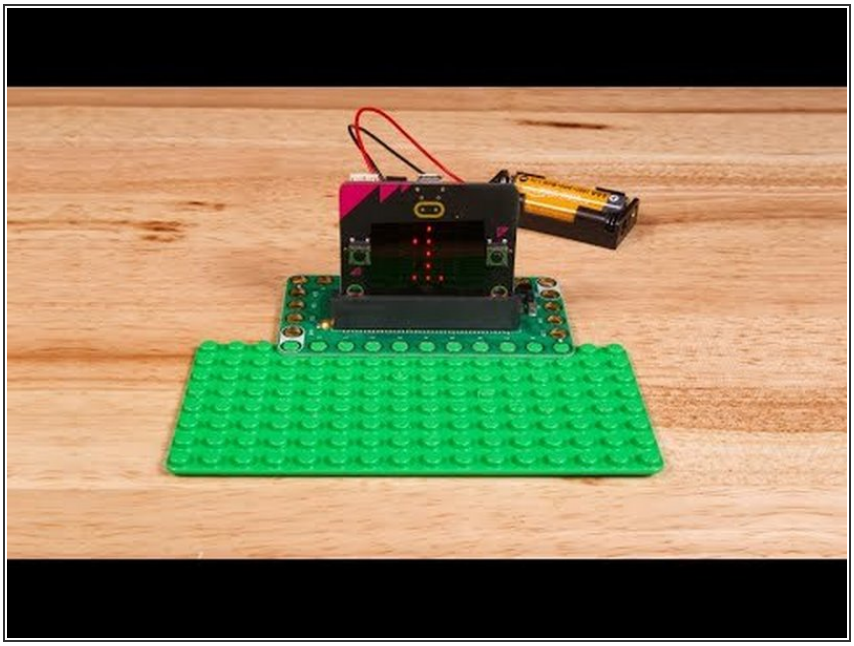
- If you've never used a micro:bit before you'll want to check out this guide: Bit Board V2 Setup and Use
- We're going to load the following code for our **LED Matrix Larson** program: https://makecode.microbit.org/_TAW1DuWi8...
- We're going to see the classic "Larson Scanner" again, this time with the built-in LED Matrix.
- We basically turn on (and off) LEDs in sequence from left to right and then back from right to left, and repeat.

Step 3 — Test it Out!



- Once the code is loaded it should start running immediately.
- ⓘ You can power the micro:bit via the USB cable you used to load the code or you can use a battery pack plugged into the Bit Board.
- The micro:bit's built-in LED Matrix will turn on the first LED, then clear the screen, and turn on the second, and so on...
- The **Larson Scanner** is an effect that "scans" back and forth by lighting up one LED at a time.

Step 4 — Follow Along



- Follow along with our recorded Live Stream!
- ⓘ You can watch the full video of us walking through this project, along with explaining and exploring the code: https://youtube.com/live/3A9rYMbcC04