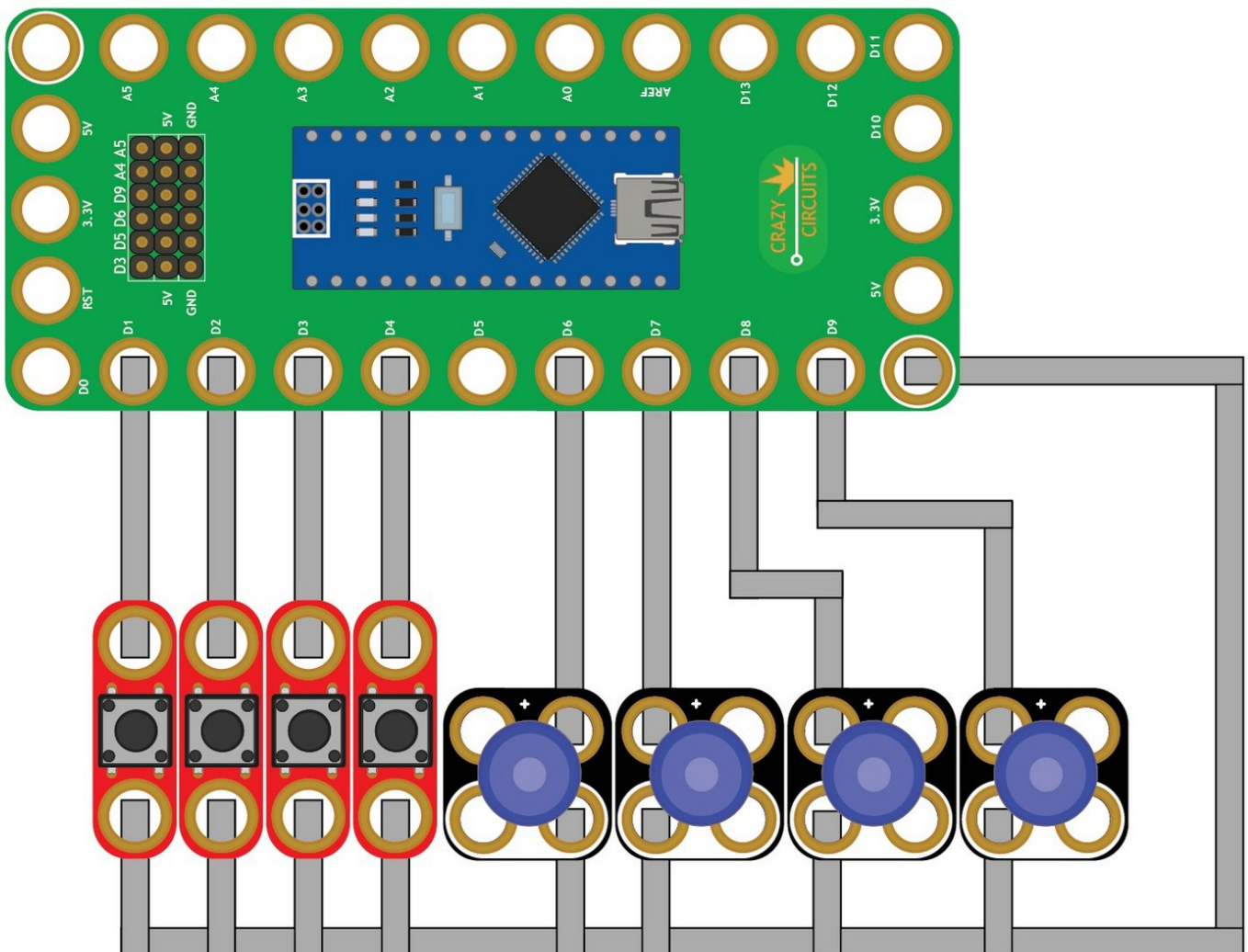




02 - 4 Pushbuttons with 4 LEDs

Use our Programming 101 kit to control 4 LEDs with 4 pushbuttons.

Written By: Pete Prodoehl



INTRODUCTION

Use our Robotics Board to control control 4 LEDs with 4 pushbuttons.



TOOLS:

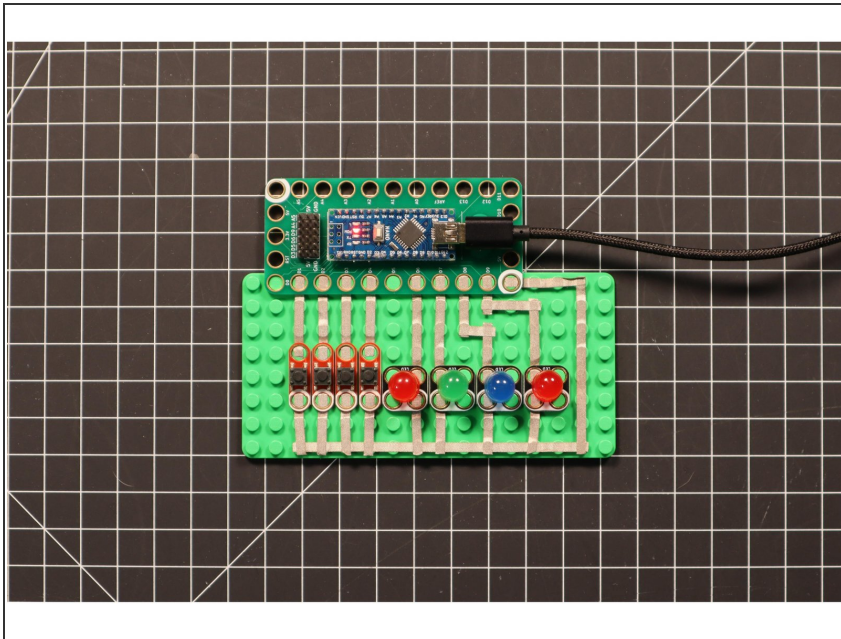
- [Scissors](#) (1)
- [Computer](#) (1)



PARTS:

- [Crazy Circuits Robotics Board](#) (1)
- [Standard Pushbutton Chip](#) (4)
- [Crazy Circuits LED Chip](#) (4)
- [Maker Tape](#) (1)
1/8" Wide

Step 1 — Build the Circuit



- Build the circuit as shown in the diagram using the components specified.

Step 2 — Upload the Code

```
1 /*
2  * 4_PushButtons_with_4_LEDs.ino
3  *
4  * https://www.browndoggadgets.com/
5  *
6  */
7
8
9
10 // set variable names for four different digital input pins
11 int ButtonPin1 = 1;
12 int ButtonPin2 = 2;
13 int ButtonPin3 = 3;
14 int ButtonPin4 = 4;
15
16 // set variable names for four different digital output pins
17 int LEDpin1 = 6;
18 int LEDpin2 = 7;
19 int LEDpin3 = 8;
20 int LEDpin4 = 9;
21
22
23 // the setup runs once at the beginning of the sketch
24 void setup() {
25
26   // the ButtonPins are set to function as inputs with special built-in pull-up resistors
27   pinMode(ButtonPin1, INPUT_PULLUP);
28   pinMode(ButtonPin2, INPUT_PULLUP);
29   pinMode(ButtonPin3, INPUT_PULLUP);
30   pinMode(ButtonPin4, INPUT_PULLUP);
31
32   // the LEDpins are set to function as outputs
33   pinMode(LEDpin1, OUTPUT);
34   pinMode(LEDpin2, OUTPUT);
35   pinMode(LEDpin3, OUTPUT);
36   pinMode(LEDpin4, OUTPUT);
37
38 }
39
40
41 // the loop runs forever after the setup is complete
42 void loop() {
43
44   // check if the first button is pressed
45   if (digitalRead(ButtonPin1) == LOW) {
46     // set the first output pin high to turn on the first LED
47     digitalWrite(LEDpin1, HIGH);
48   }
49 }
```

- Upload the Arduino sketch to the Robotics Board.
- You can find the code here:
<https://github.com/BrownDogGadgets/Progr...>