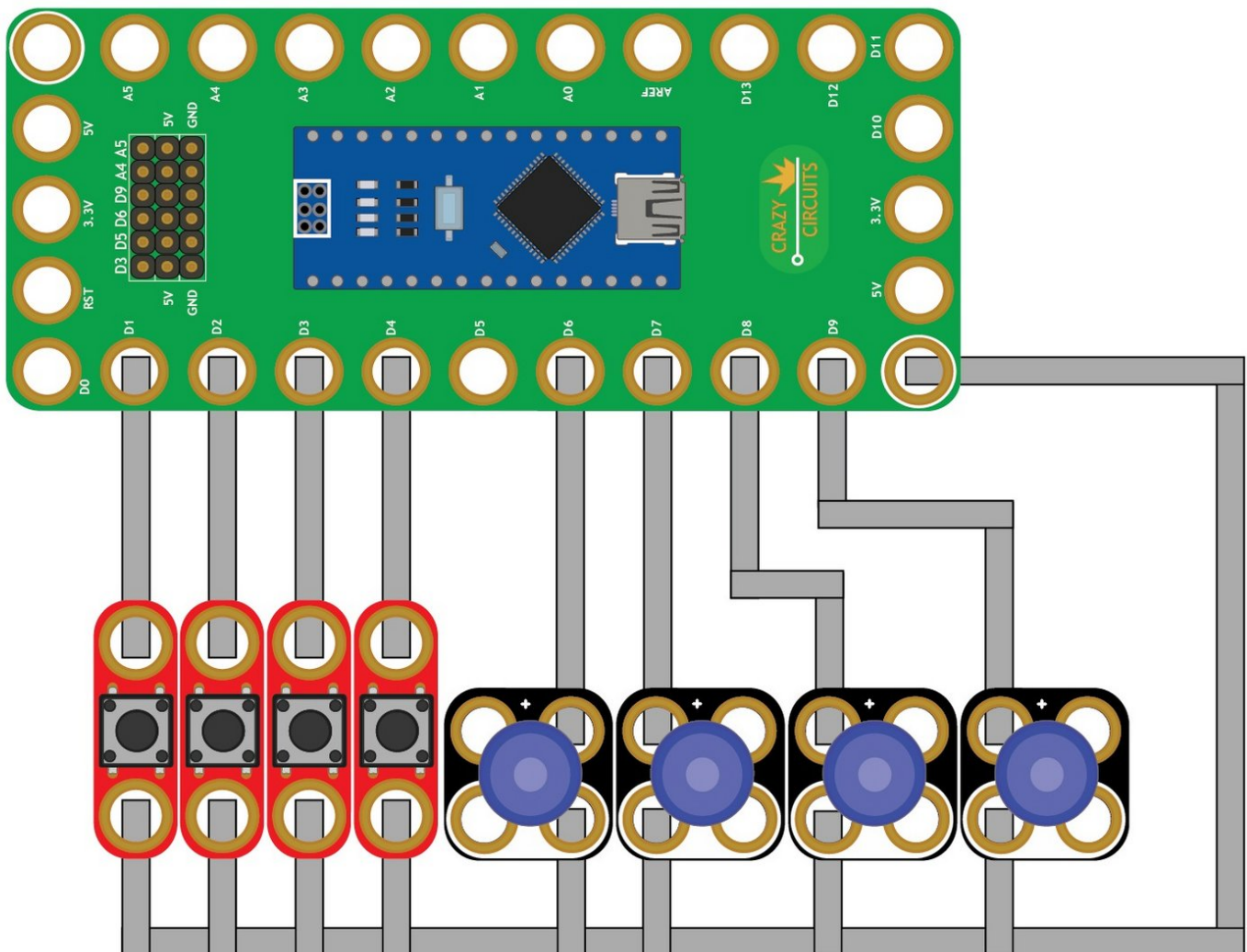




02 - 4 Pushbuttons with 4 LEDs

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:

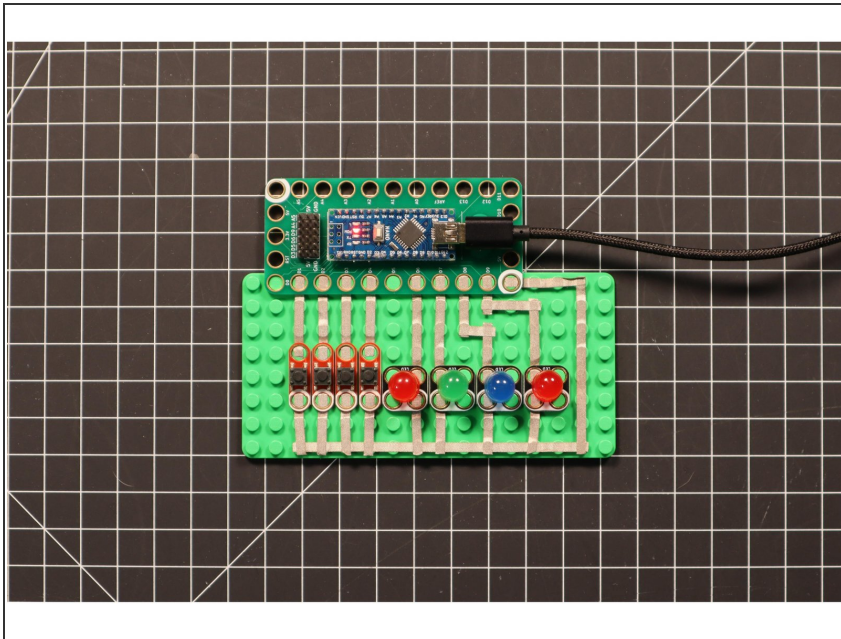
- [Scissors](#) (1)
- [Computer](#) (1)



PARTS:

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

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   }  
50 }
```

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