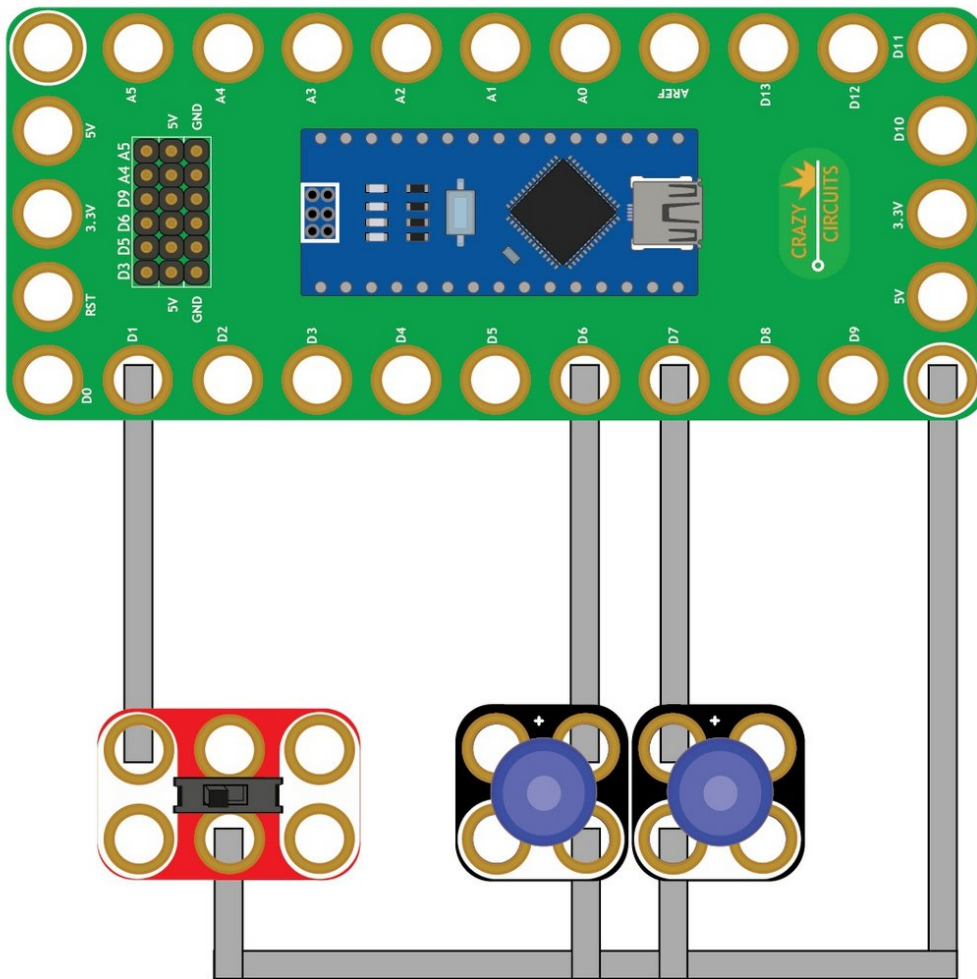




03 - Switch with 2 LEDs

Use our Programming 101 kit to control 2 LEDs with a switch.

Written By: Pete Prodoehl

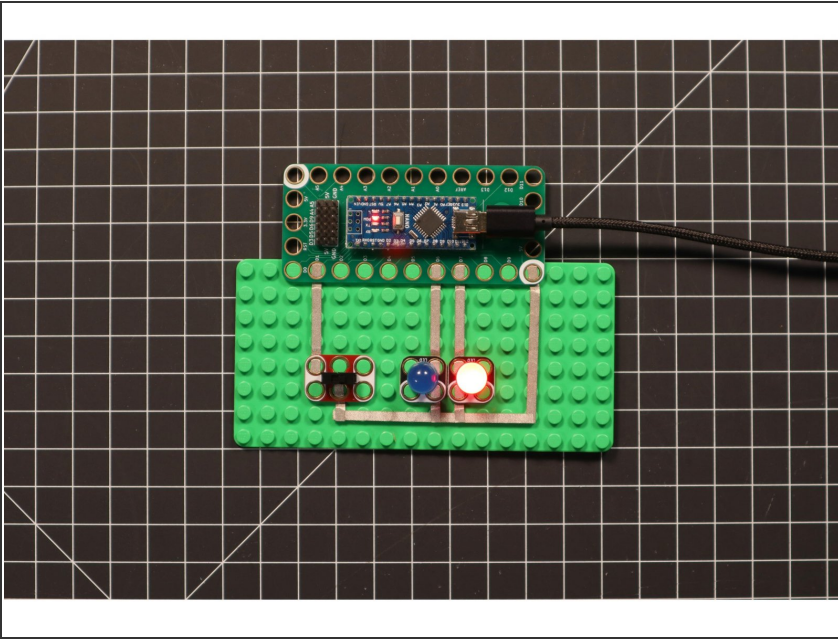


INTRODUCTION

Use our Robotics Board to control 2 LEDs with a switch.

 TOOLS: • Scissors (1) • Computer (1)	 PARTS: • Crazy Circuits Robotics Board (1) • Crazy Circuits Slide Switch Chip (2) • Maker Tape (1) 1/8" Wide
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Step 1 — Build the Circuit



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

Step 2 — Upload the Code

```
Switch with 2 LEDs | Arduino 1.8.13

1 /*
2  * Switch with 2 LEDs.ino
3  *
4  * https://www.browndoggadgets.com/
5  *
6  */
7
8
9
10 // set variable name for a digital input pin
11 const SwitchPin = 1;
12
13 // set variable names for two different digital output pins
14 const LEDpin1 = 6;
15 const LEDpin2 = 7;
16
17
18 // the setup runs once at the beginning of the sketch
19 void setup() {
20
21   // the LEDs are set to function as outputs
22   pinMode(LEDpin1, OUTPUT);
23   pinMode(LEDpin2, OUTPUT);
24
25   // the switch is set to function as an input with a special built-in pull-up resistor
26   pinMode(SwitchPin, INPUT_PULLUP);
27
28 }
29
30
31 // the loop runs forever after the setup is complete
32 void loop() {
33
34   // check if the switch is in the on position
35   if (digitalRead(SwitchPin) == LOW) {
36     // set the first output pin high to turn on the first LED
37     digitalWrite(LEDpin1, HIGH);
38     // set the second output pin low to turn off the second LED
39     digitalWrite(LEDpin2, LOW);
40   }
41   // this happens if the switch is in the off position
42   else {
43     // set the first output pin low to turn off the first LED
44     digitalWrite(LEDpin1, LOW);
45     // set the second output pin high to turn on the second LED
46     digitalWrite(LEDpin2, HIGH);
47   }
48 }
```

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