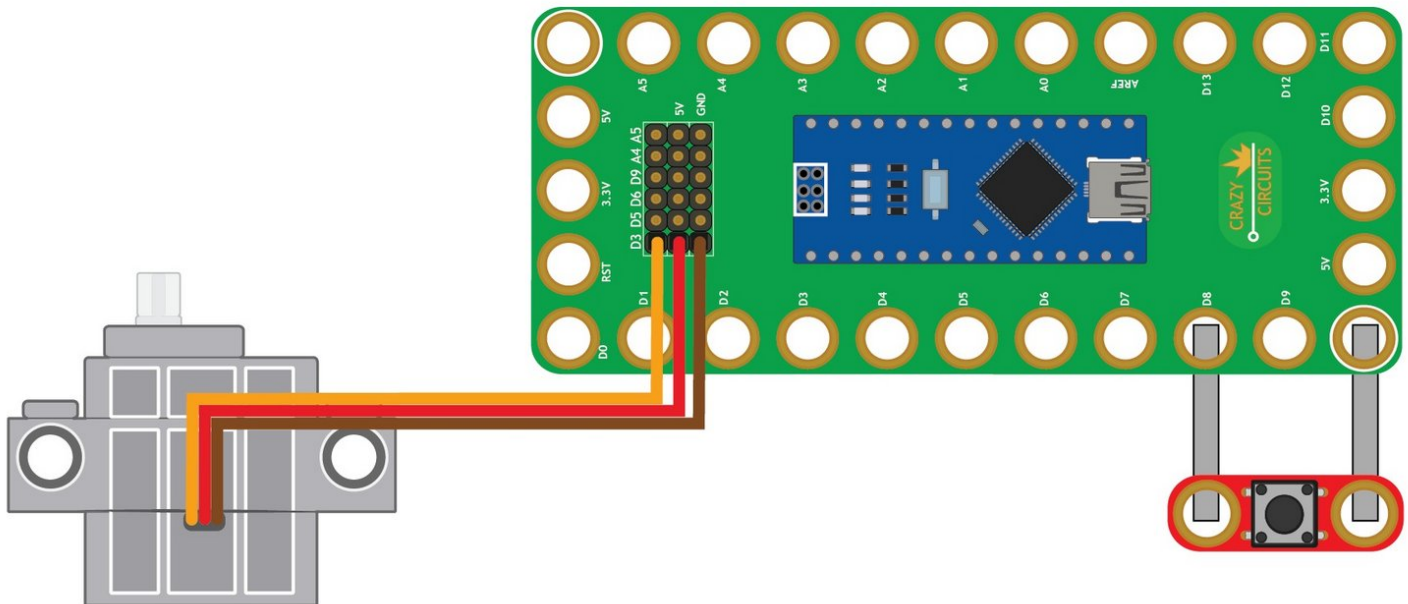




09 - Pushbutton with Servo



Use our Programming 101 kit to control a servo with a pushbutton.

Written By: Pete Prodoehl

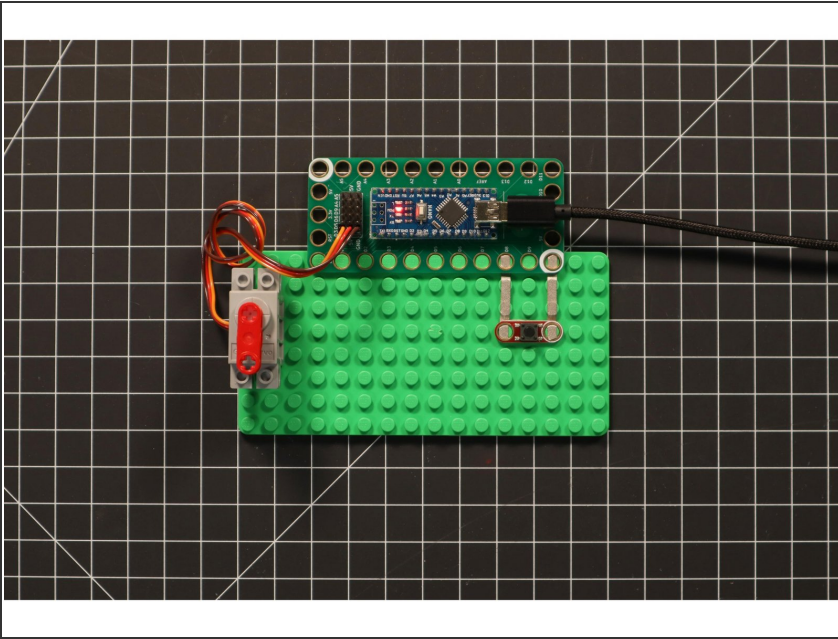


INTRODUCTION

Use our Robotics Board to control a servo with a pushbutton.

<div> TOOLS:</div> <div><ul style="list-style-type: none">• Scissors (1)• Computer (1)</div>	<div><div></div> PARTS:</div> <div><ul style="list-style-type: none">• Crazy Circuits Robotics Board (1)• Standard Pushbutton Chip (1)• Brick Compatible 270 Degree Servo (1)• Maker Tape (1)<div>1/8" Wide</div></div>
---	--

Step 1 — Build the Circuit



- Build the circuit as shown in the diagram using the components specified.
- ❗ The servo motor has wires already attached. Make note of where each color plugs in.

Step 2 — Upload the Code

```
1 //  
2 * Pushbutton_with_Servo.ino  
3 *  
4 * https://www.browndoggadgets.com/  
5 *  
6 */  
7  
8  
9  
10 // use the Servo library in the sketch  
11 #include <Servo.h>  
12  
13 // create a Servo object to control the servo  
14 Servo theServo;  
15  
16 // set variable name for a digital output pin with Pulse Width Modulation  
17 // pins 3, 5, 6, 9, 10, 11 support PWM  
18 int ServoPin = 3;  
19  
20 // set variable name for an analog input pin  
21 int ButtonPin = 2;  
22  
23  
24 // the setup runs once at the beginning of the sketch  
25 void setup() {  
26  
27   // set theServo to use the specified pin  
28   theServo.attach(ServoPin, 800, 2100);  
29  
30   // the ButtonPin is set to function as an input with a special built-in pull-up resistor  
31   pinMode(ButtonPin, INPUT_PULLUP);  
32  
33   // move the servo to 40 degrees  
34   theServo.write(40);  
35  
36 }  
37  
38  
39 // the loop runs forever after the setup is complete  
40 void loop() {  
41  
42   // check if the button is pressed  
43   if (digitalRead(ButtonPin) == LOW) {  
44     // move the servo to 120 degrees  
45     theServo.write(120);  
46   }  
47   // this happens if the button is not pressed
```

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