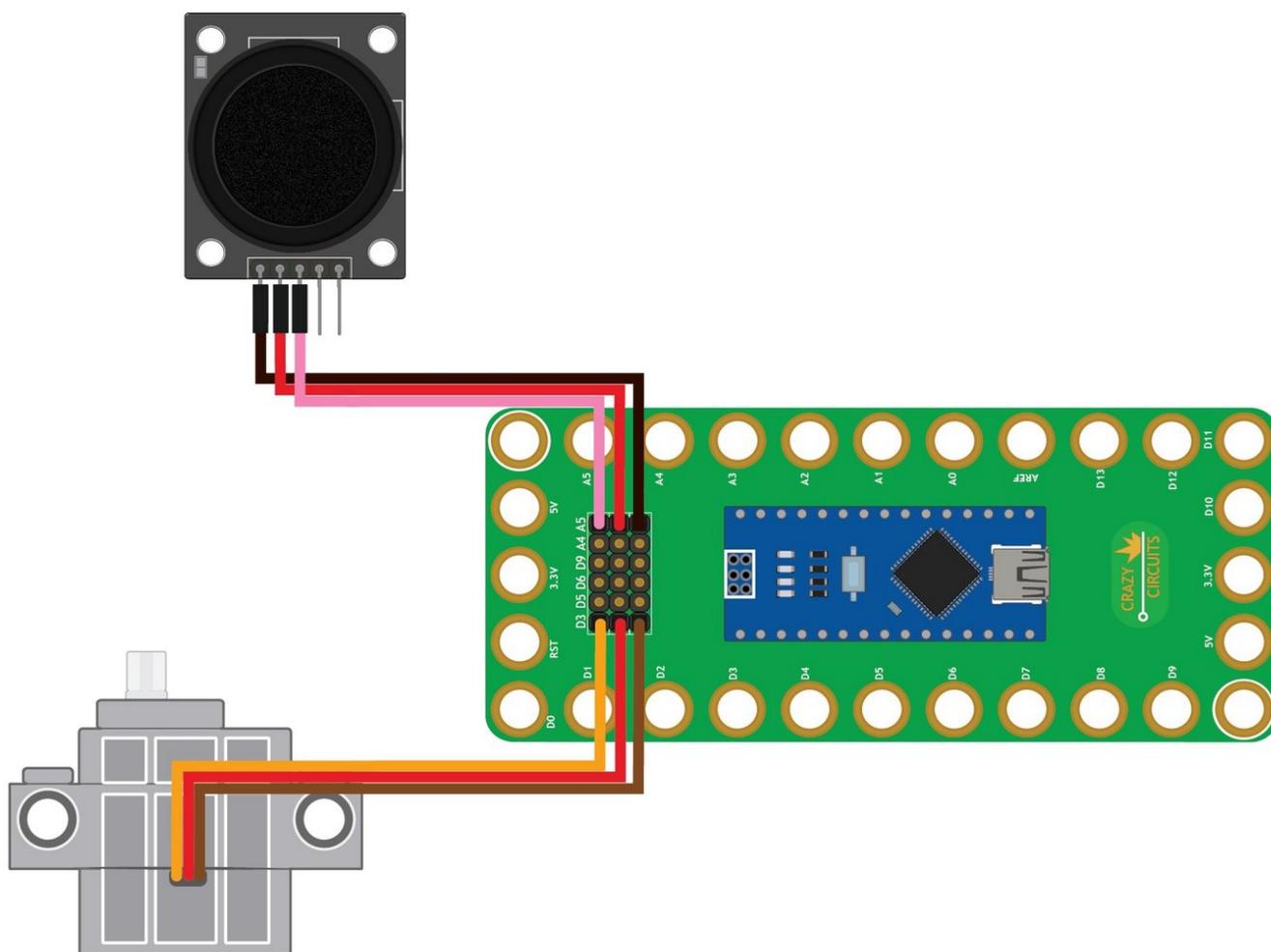




11 - Thumbstick with Servo

Use our Programming 101 kit to control a servo motor with a thumbstick.

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INTRODUCTION

Use our Robotics Board to control a servo motor with a thumbstick.



TOOLS:

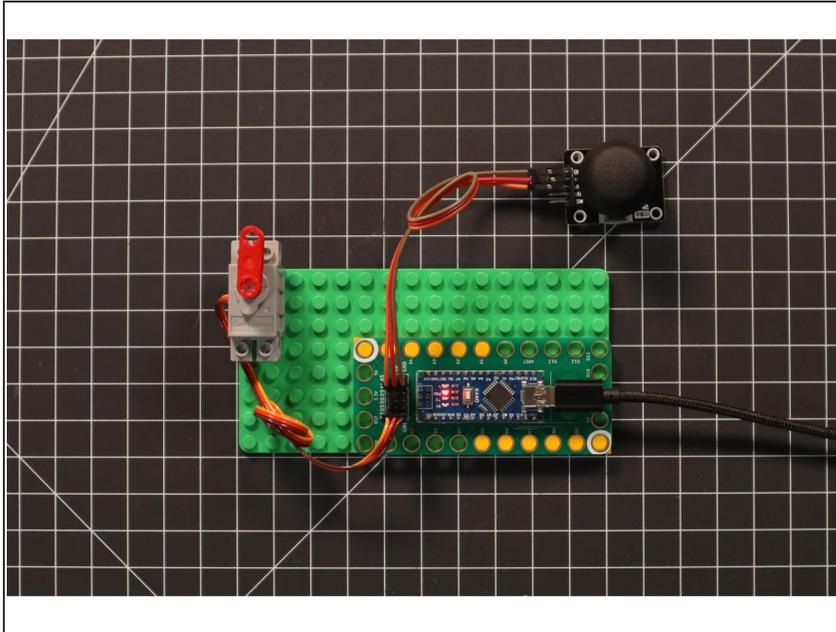
- [Computer](#) (1)



PARTS:

- [Crazy Circuits Robotics Board](#) (1)
- [Thumbstick](#) (1)
- [Brick Compatible 270 Degree Servo](#) (1)
- [Jumper Wires](#) (3)

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.
- ⓘ You can use any color jumper wires for the thumbstick, just make sure they are plugged into the right place.

Step 2 — Upload the Code

```

Thumbstick_with_Servo | Arduino 1.8.13
1/*
2 * Thumbstick_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
14Servo 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
18int ServoPin = 3;
19
20// set variable name for an analog input pin
21int ThumbstickPin = A4;
22
23// set variable name to hold the input value
24int ThumbstickXValue;
25
26// set variable name to hold the adjusted value
27int ThumbstickXValueMapped;
28
29
30// the setup runs once at the beginning of the sketch
31void setup() {
32
33 // by default the analog pins are set as input
34 // so we don't need to specify that in setup
35
36 // set theServo to use the specified pin and
37 // set a min and max pulse width in microseconds
38 theServo.attach(ServoPin, 600, 2100);
39
40 // move the servo to the middle position
41 theServo.write(90);
42
43
44
45
46 // the loop runs forever after the setup is complete
47 void loop() {

```

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