**How To Use: Controllers**

For this project, we are using an Arduino to control the joy cons. Today I’m going show you how to do a basic set up of the breadboard and later we will get into the code.

Everything we will need-

1 breadboard

2 thumb sticks

1 Arduino Leonardo pro micro

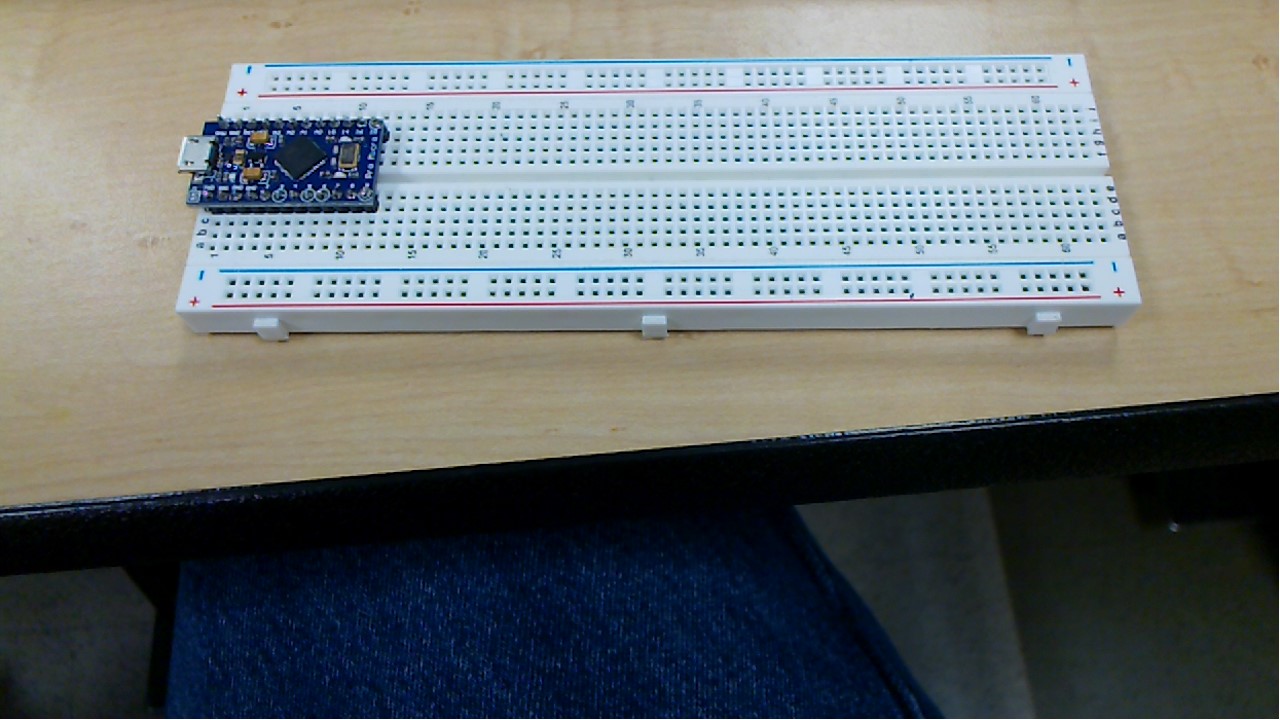
Dupont connectors

Get your breadboard and thumb sticks out and place them on your work surface.

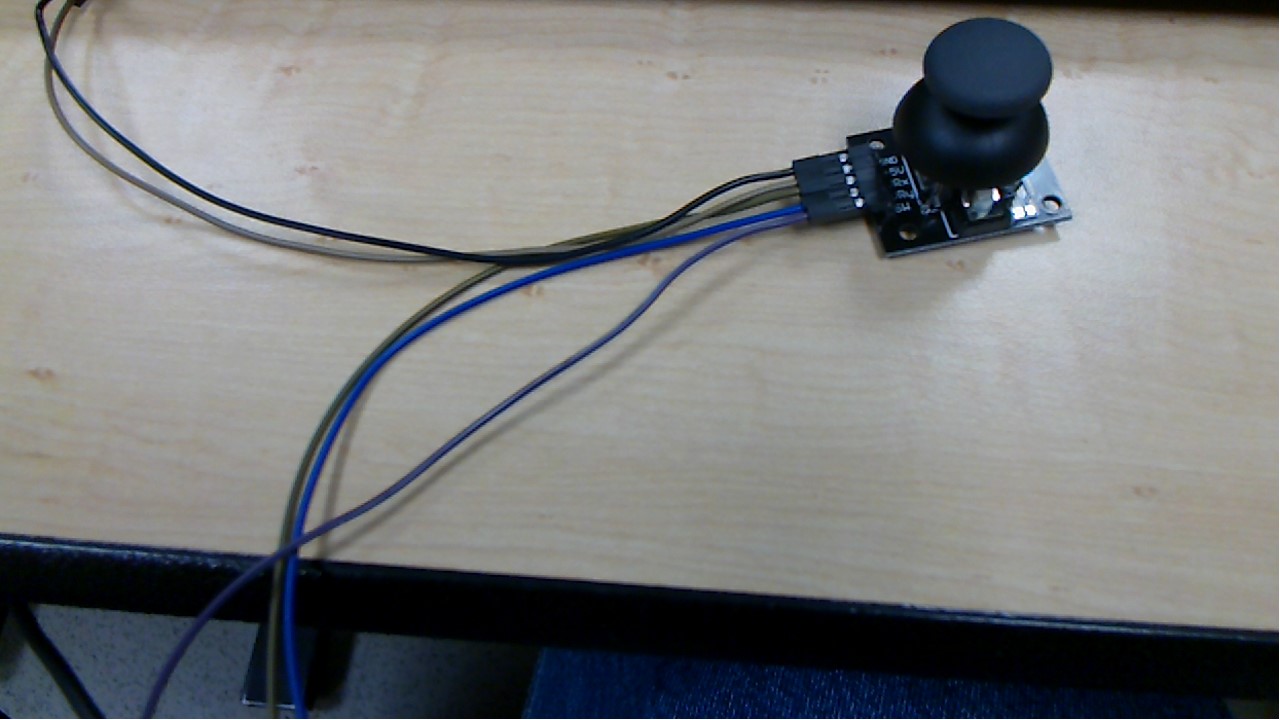
#picture of everything we will need#

On both thumb sticks you will notice they have pins with words next to them. GND is ground which grounds the pins. +5V gives the thumb stick 5 volts of power. VRx and VRy are the x and y axis respectively. SW is the pin that sends out the actual data that the thumb switch generates.

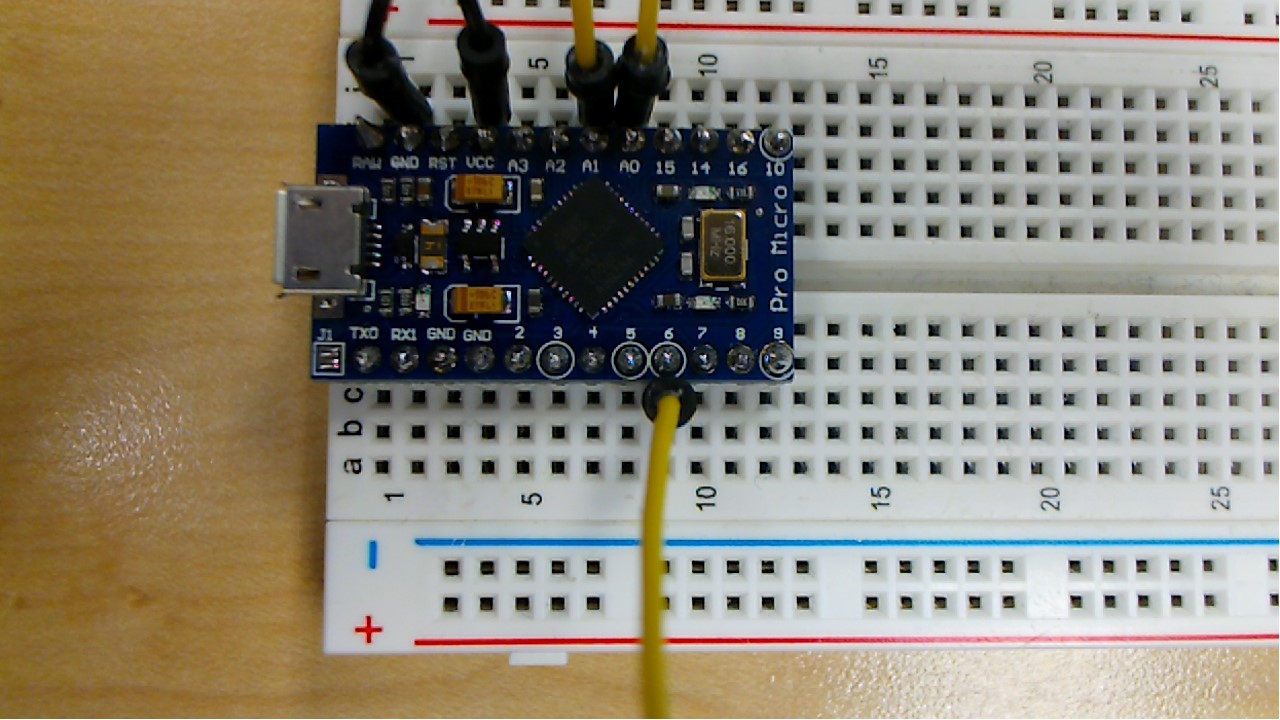
Step 1- At the end of the breadboard, insert the arduino Leonardo into the board. The charging port needs to face away from the board. The board should also be in the center of the ditch as possible.



Step 2- on every pin on the thumb switches, insert a wire that has a single pinout and a single pin in. you will need 10 wires to complete this step.



Step 3- on the breadboard, place a double sided pinout wire in pins GND at the top of the arduino, VCC at the top of the arduino, and a pinout wire on pin 6 at the bottom of the board. Two more wires need to be inserted into the A0 and A1 ports. I have the other ends of the wires under my keyboard to make it easier to take a picture.



Step 4- obtain another double pinout wire and insert one end into negative side of the breadboard.

#picture of new pinout ground wire#

Step 5- The ground wire that is not plugged in will be plugged into hole 40 on the breadboard. A1 will be plugged into hole 35. A0 will be plugged into hole 37. VCC will be plugged into hole 45. Pin 6 will be plugged into hole 50. Remember which pin is which on the board, we will need to know that later.

#picture of all double sided wires connected to the board.#