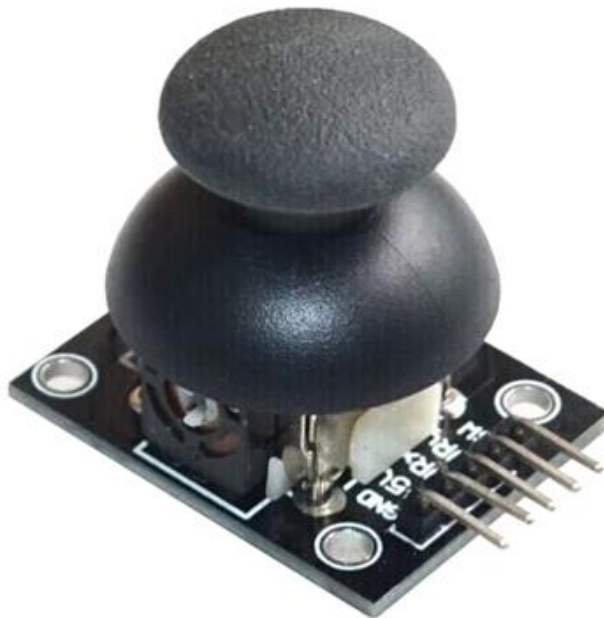


PS2 Joy Stick for Arduino/Raspberry

This PS2 style joystick is a thumb operated device, offers a convenient way of getting user input. It is fundamentally consists of two potentiometers and a push button switch. The two potentiometers indicate which direction the potentiometer is being moved. The switch sends low (or ground) when the joy stick knob is pressed. This module produces an output of around 2.5V from X and Y when it is in resting position. Moving the joystick will cause the output to vary from 0v to 5V depending on its direction.



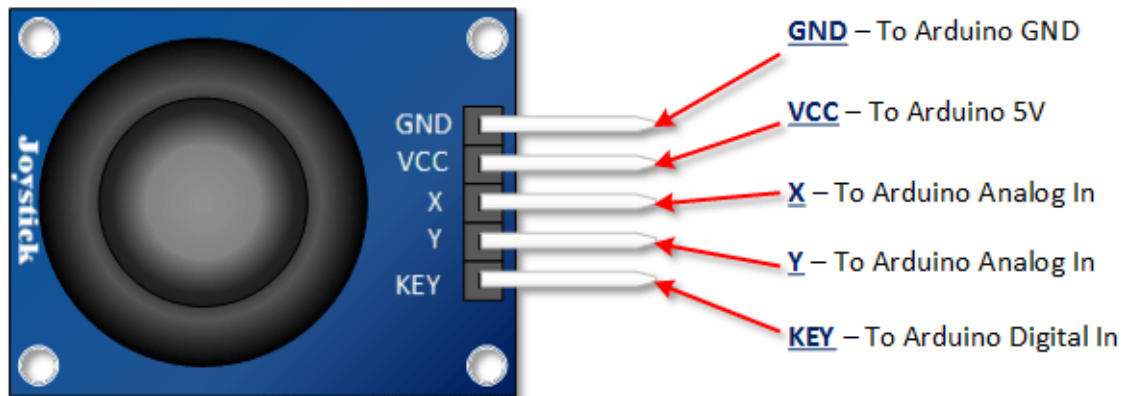
SKU: [ASS-1056](#)

Brief Data:

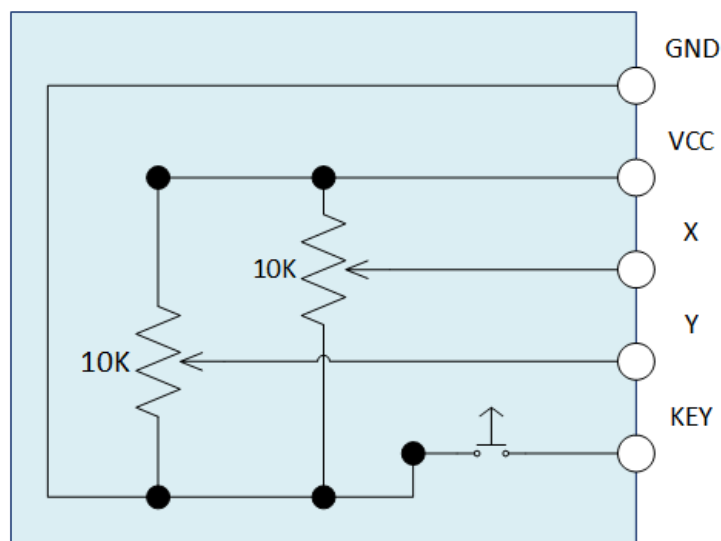
- Analog output: 2-Axis X and Y.
- Digital Output: One Push Button.
- Interface: 5-pins.
- Mounting: 4x M4 mounting hole.
- Dimensions: (34 x 26 x 32) mm.

Pin Assignment:

This input device interfaces to your Arduino via five pins. Three of which are inputs to your Arduino, while the remaining two supply voltage and ground.

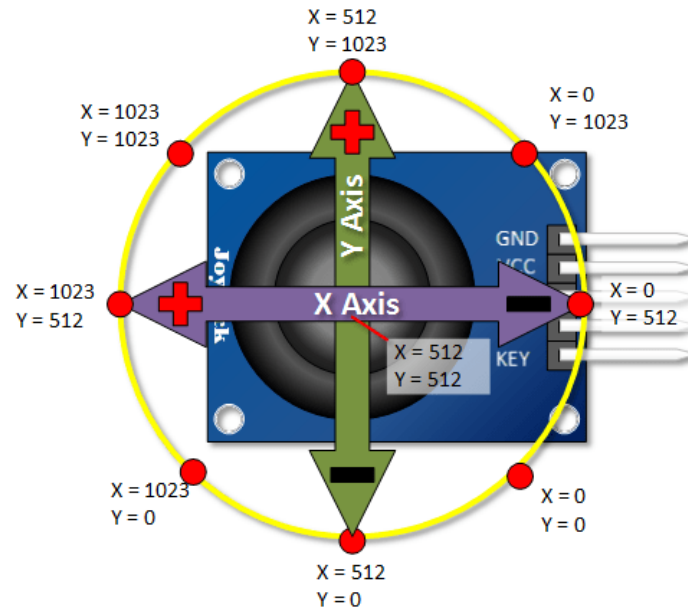


PS2 Joy Stick Schematic:



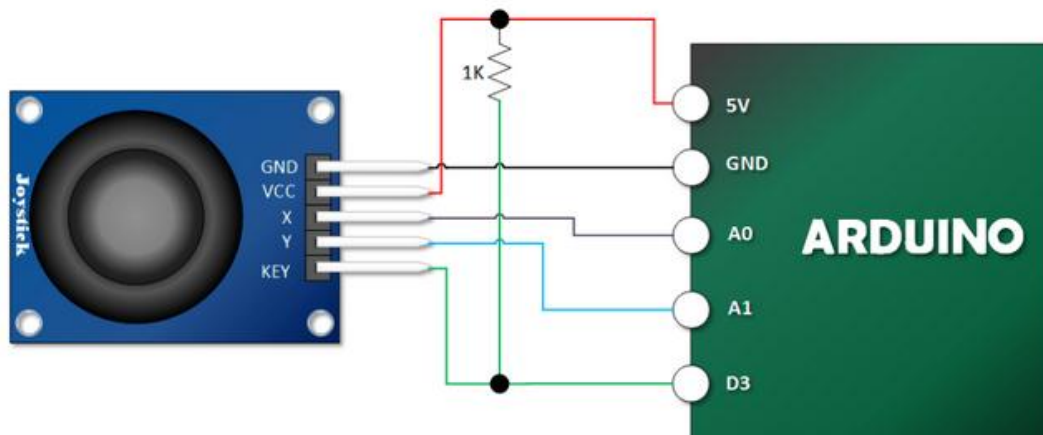
Output Orientation:

In order to put this thumb controller to use, you need to understand which direction is X and which direction is Y. You will also need to decipher the direction it is being pushed in either the X or the Y direction. In this tutorial we are using analog inputs to measure the joystick position. The analog inputs provided indications that range between 0 and 1023. The graphic below shows the X and Y directions and also gives an indication of how the outputs will respond when the joystick is pushed in various directions.



Arduino PS2 Joystick Tutorial:

Setup the PS2 Joystick to Arduino Uno controller board as below diagram. Note that the use of pull up 1K Ω resistor between the key switch and the digital input. Once you move beyond experimentation, recommend some sort of software or hardware debounce for this switch as well.



Upload the following sketch to Arduino Uno board:

```

/*=====
// Author : Handson Technology
// Project : Arduino Uno with PS2 Joystick
// Description : Reading PS2 Joystick Value with Arduino Uno
// Source-Code : ps2-Joystick.ino
// PS2 Jostick Module: KY023
//=====
*/

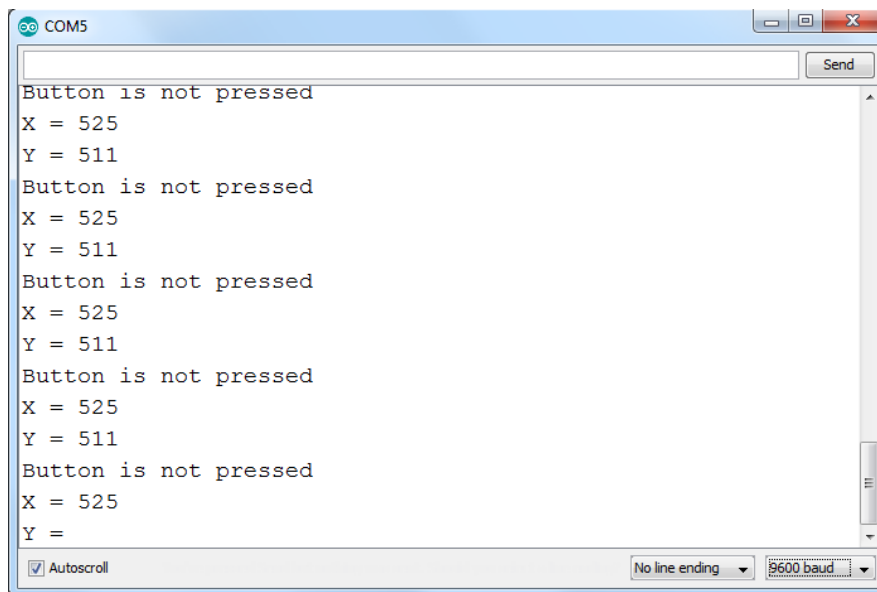
int Xin= A0; // X Input Pin
int Yin = A1; // Y Input Pin
int KEYin = 3; // Push Button

void setup ()
{
  pinMode (KEYin, INPUT);

```

```
Serial.begin (9600);  
}  
void loop ()  
{  
  int xVal, yVal, buttonVal;  
  
  xVal = analogRead (Xin);  
  yVal = analogRead (Yin);  
  buttonVal = digitalRead (KEYin);  
  
  Serial.print("X = ");  
  Serial.println (xVal, DEC);  
  
  Serial.print ("Y = ");  
  Serial.println (yVal, DEC);  
  
  Serial.print("Button is ");  
  if (buttonVal == HIGH){  
    Serial.println ("not pressed");  
  }  
  else{  
    Serial.println ("PRESSED");  
  }  
  
  delay (500);  
}
```

Open up the Serial Monitor with baud rate of 9600, move the PS2 joystick and observe the reading:





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