

# Joystick Module Tutorial

## 1.Overview:

This PS2 game dual axis joystick module is made of high quality metal PS2 joystick potentiometer, with (X, Y) 2 axis analog output, (Z) 1 button digital output.

## 2.Product parameters:

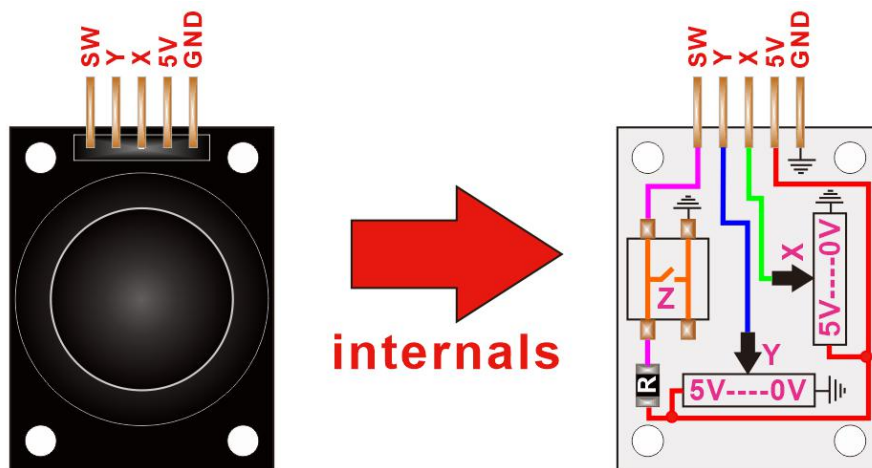
Interface type: analog, digital value

Three axes (X, Y, Z (buttons))

Interface: 2.54mm pin header

Size: 34x26x32mm

## 3.Pin and internal structure:



GND: Connect to the negative pole of the power supply

5V: connected to the positive pole of the power supply

X: X axis analog value output

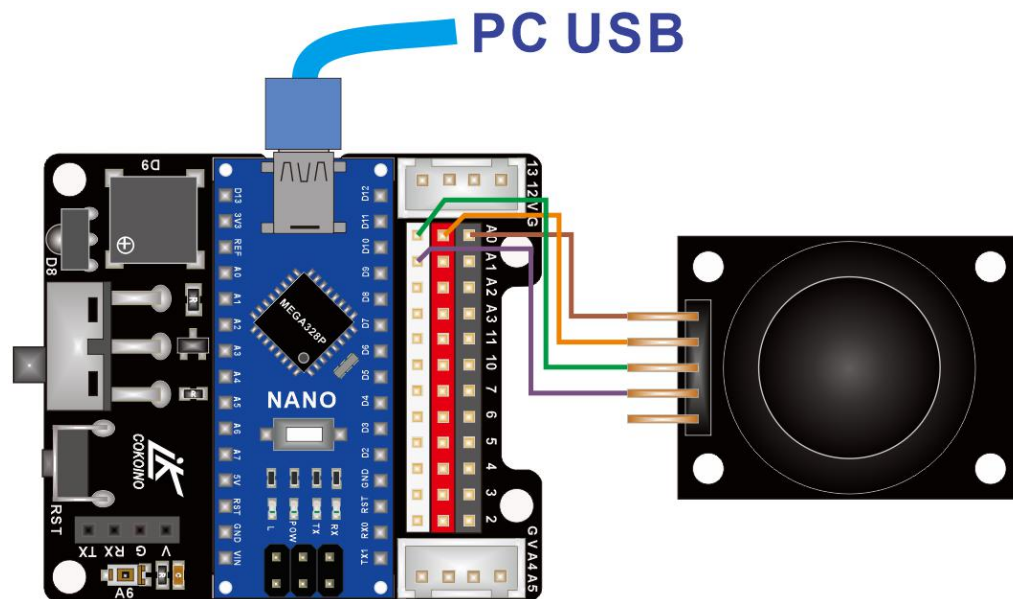
Y: Y-axis analog value output

SW: Z-axis output (button)

The joystick is made up of two passive potentiometers (variable resistors) and a push button, it is made by mounting two potentiometers at a 90 degrees angle. The potentiometers are connected to a short stick centered by springs. 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. This joystick also has a select button that is actuated when the joystick is pressed down.

## 4.How to Use Joystick?

### Wiring Diagram



**Note:** The Z-axis function is not used in the robot arm, so the joystick is not equipped with Z-axis function, you do not need to connect the sw pin.

### Code:

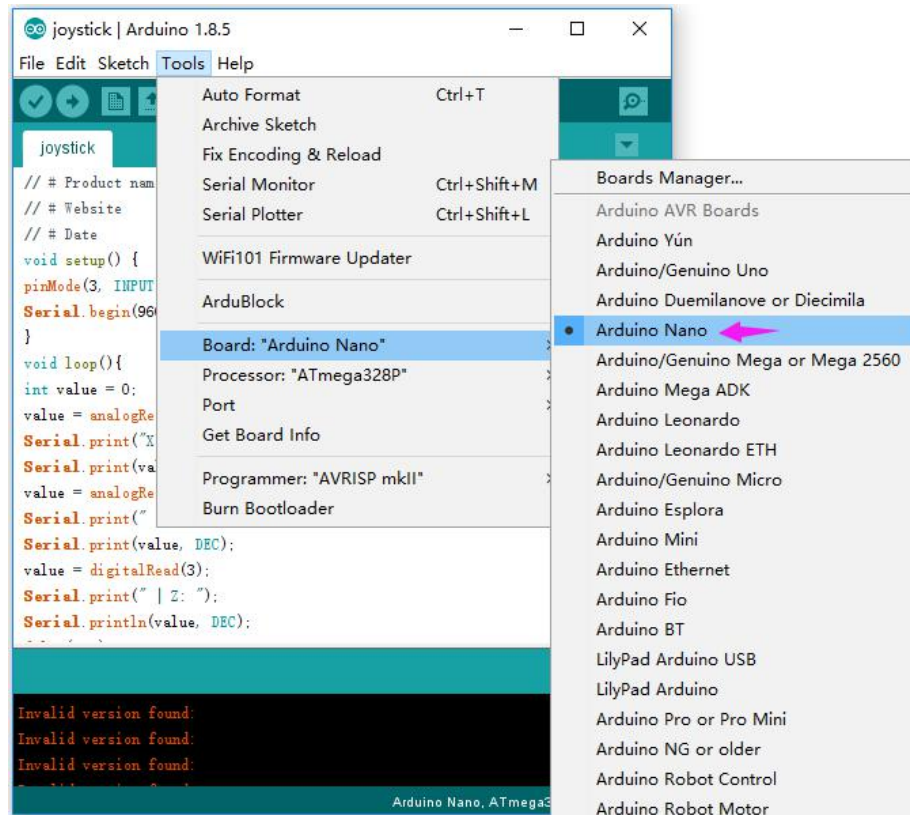
```
// # Product name: Joystick Module
// # Website      : https://github.com/Cokoino/
// # Date         : 2019-11-22

void setup() {
  pinMode(3, INPUT);
  Serial.begin(9600);
}

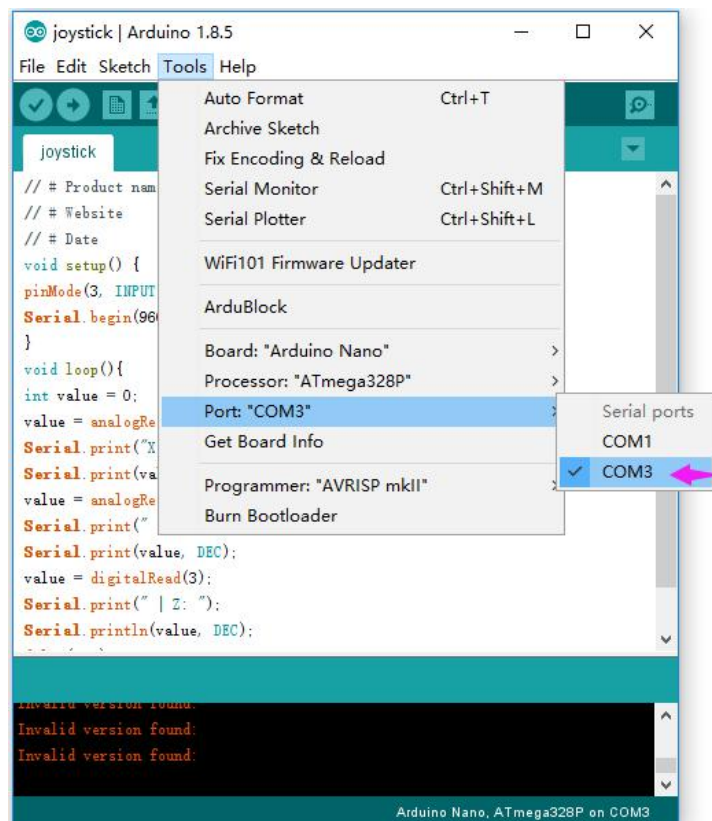
void loop(){
  int value = 0;
  value = analogRead(A0);
  Serial.print("X:");
  Serial.print(value, DEC);
  value = analogRead(A1);
  Serial.print(" | Y:");
  Serial.print(value, DEC);
  value = digitalRead(3);
  Serial.print(" | Z: ");
  Serial.println(value, DEC);
  delay(100);
}
```

## Setting up the arduino IDE

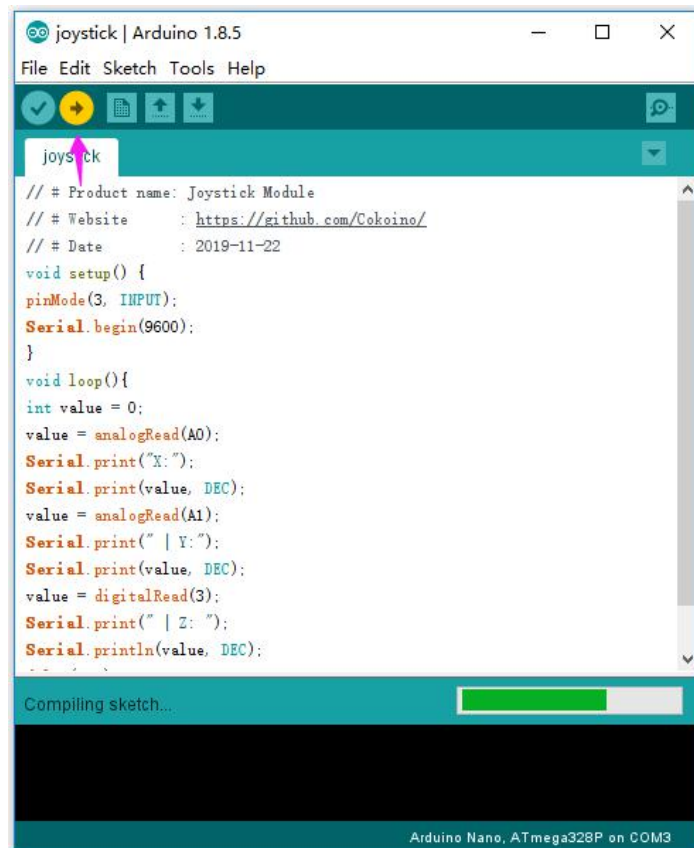
Select board



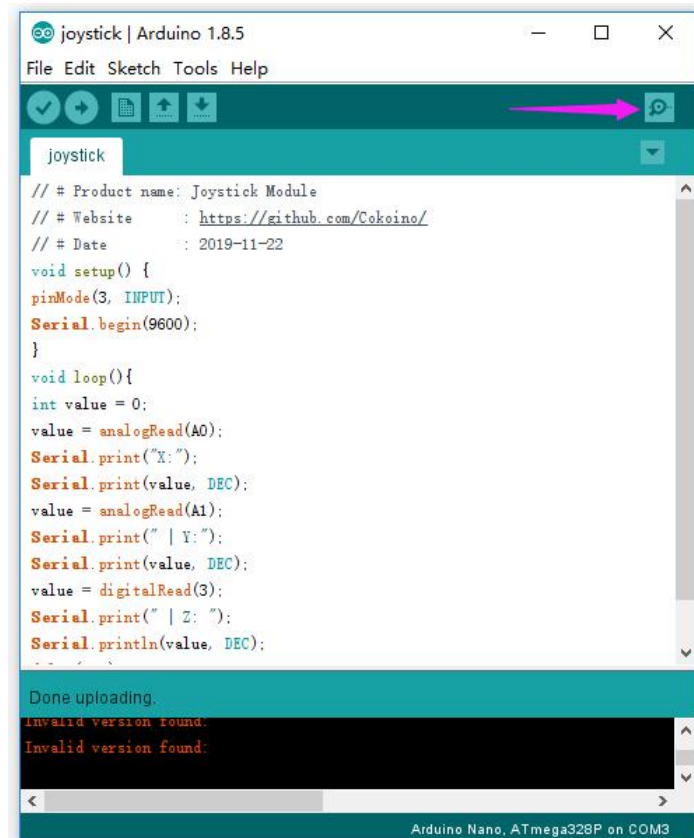
Select port



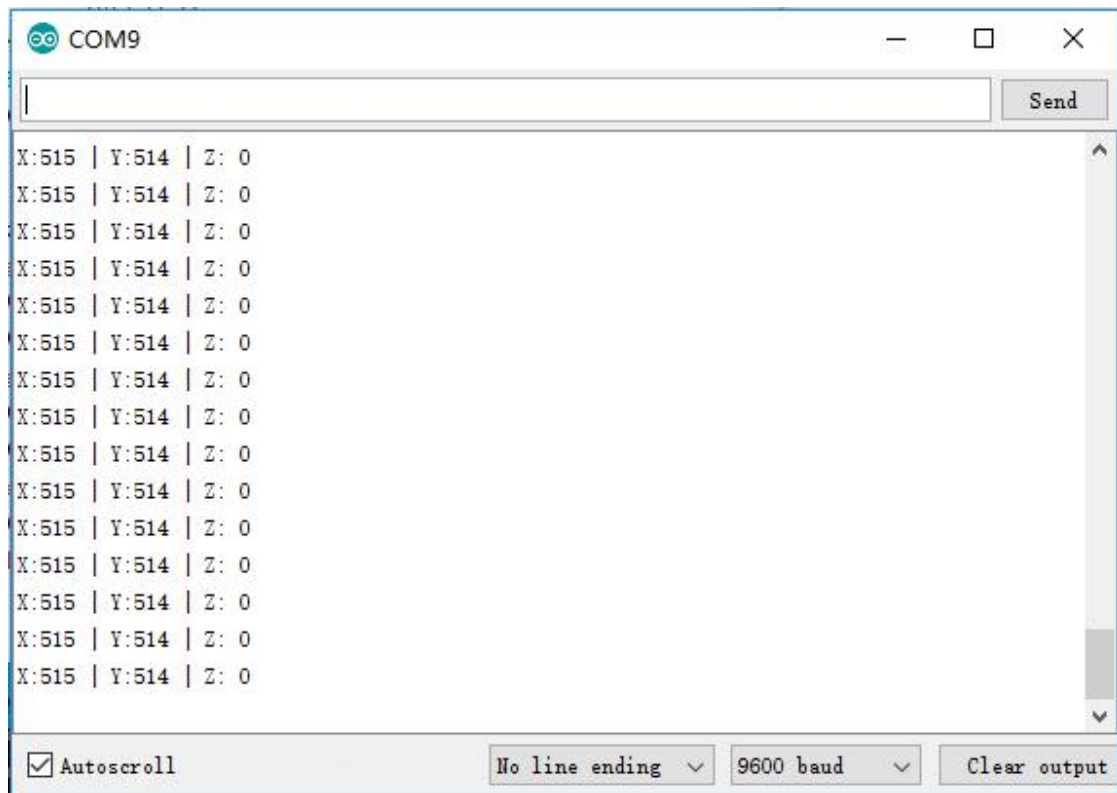
## Upload the code



## Open the serial monitor



The serial display can reflect the x, y, z 3D data of the joystick module in real time to the Serial Monitor window, as shown below:



Company website address: <http://cokoino.com/>

Github : <https://github.com/Cokoino/>