# **KY-023 Dual-axis Joystick Module**



# **Product Description**

- Dual-axis XY Joystick Module
- Dimensions:
- Size: 4 X 2.6 X 3.2CM
- 2 potentiometers for 2 axes
- 1 switch
- Connector: +5Vcc GND VRx VRy SW

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1Pcs XY Joystick Module

### **Product parameters**

**Product Name:** Rocker module (two-axis key rocker)

Product size: 34.0mm \* 26.0mm\* 32.0mm (length x width x height)

Color: Black

Weight: 11.0g(including package)

Packing: Electrostatic bag Packing for single module

Material: FR4+ electronic device

#### **Product Introduction**

Dual-axis key rocker sensor module is made of PS2 key rocker potentiometer, with (X,Y) 2-axis analog output, (Z) 1-way button digital output. Sensor extension board can make remote control and other interactive works. In addition, this product in order to let customers more convenient cooperation. Expansion board and other standard interface, in the design of X,Y,Z axis circuit are single DU out, the user can use 3 pin. The special wire is really connected to the expansion board for use.

# **Product performance**

- 1. Input voltage range: 3.3V to 5V DC
- 2. Output signal: the module is equipped with two analog output and one digital output interfaces. The output values correspond to (X, Y) biaxial offsets respectively, and the type is analog. The key indicates whether the user presses on the Z-axis, and its type is digital switch quantity.
- 3. Creative remote control interactive works can be completed through controller programming and sensor expansion board insertion.
- 4. The cross rocker is a bidirectional 10K resistor. With the different direction of the rocker, the resistance value of the tap changes with the change. This module uses 5V power supply. The readout voltage of X and Y is about 2.5V in YUAN's initial state. When pressed in the direction of the arrow, the readout voltage will increase and Z will reach 5V. When the arrow is pressed in the opposite direction, the readout voltage value decreases and Z is 0V.

#### How to Use:

Before introducing how to use, we first look at its work YUAN principle, which is very helpful for us to use it, the following is a schematic diagram of the function: in fact, this module is a potentiometer, X, Y dimension data output is the voltage value of the analog port read out. In this figure, Z-dimension data output is not drawn. Z-dimension only outputs 0 and 1, which can be achieved by a key. In a word, it is the combination of potentiometer and key. Using it under., X and Y dimensions we connect to two analog ports to read their values, while Z dimensions we connect to digital ports to connect power and ground.

## **Test procedure:**

```
int JoyStick_X = 0; //x
int JoyStick_Y = 1; //y
int JoyStick_Z = 3; //key

void setup() { pinMode(JoyStick_X, INPUT);
  pinMode(JoyStick_Y, INPUT);

pinMode(JoyStick_Z, INPUT);

Serial.begin(9600); // 9600 bps }

void loop() { int x,y,z; x=analogRead(JoyStick_X); y=analogRead(JoyStick_Y); z=digitalRead(JoyStick_Z);

Serial.print(x,DEC); Serial.print(",");

Serial.println(z,DEC);
```