Rotary Encode Module (SE055)

1 Introduction

Rotary encoder is a rotary input device (as in knob) that provides an indication of how much the knob has been rotated AND what direction it is rotating in.It's a great device for stepper and servo motor control. You could also use it to control devices like digital potentiometers.

Specification

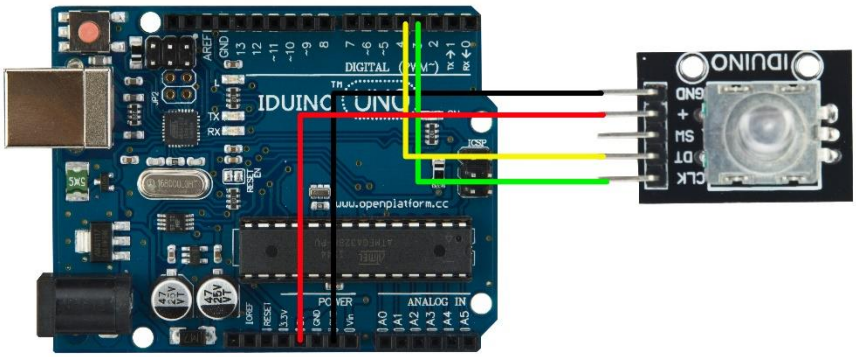
- Operation voltage: 5V
- 5Pinout
- Size:32*20*30mm
- Weight: 8g

2 Pinout

Pin	Description
CLK	Encoder A
DT	Encoder B
SW	Switch button
+	Power(5V DC)
Gnd	Ground

3.Example

This is a simple sketch that shows how to count the encoder position and how to determine direction of rotation. It has no switch debounce, nor does it use interrupts. A fully developed application might need to incorporate these in order to make it robust.



******Code Begin******

```
int pinA = 3;  // Connected to CLK
 int pinB = 4;  // Connected to DT
 int encoderPosCount = 0;
 int pinALast;
 int aVal;
 boolean bCW;

 void setup() {
   pinMode (pinA,INPUT);
   pinMode (pinB,INPUT);
   /* Read Pin A
   Whatever state it's in will reflect the last position
   */
   pinALast = digitalRead(pinA);
   Serial.begin (9600);
 }

 void loop() {
   aVal = digitalRead(pinA);
   if (aVal != pinALast){ // Means the knob is rotating
     // if the knob is rotating, we need to determine direction
     // We do that by reading pin B.
     if (digitalRead(pinB) != aVal) {  // Means pin A Changed first -
We're Rotating Clockwise
       encoderPosCount ++;
```

```
      bCW = true;
    } else {// Otherwise B changed first and we're moving CCW
      bCW = false;
      encoderPosCount--;
    }
    Serial.print ("Rotated: ");
    if (bCW){
      Serial.println ("clockwise");
    }else{
      Serial.println("counterclockwise");
    }
    Serial.print("Encoder Position: ");
    Serial.println(encoderPosCount);

  }
  pinALast = aVal;
}
```

******Code End******