



SW-420 Vibration Sensor Module

This vibration sensor module produce logic states depends on vibration and external force applied on it. When there is no vibration this module gives logic LOW output. When it feels vibration then output of this module goes to logic HIGH. The working bias of this circuit is between 3.3V to 5V DC.



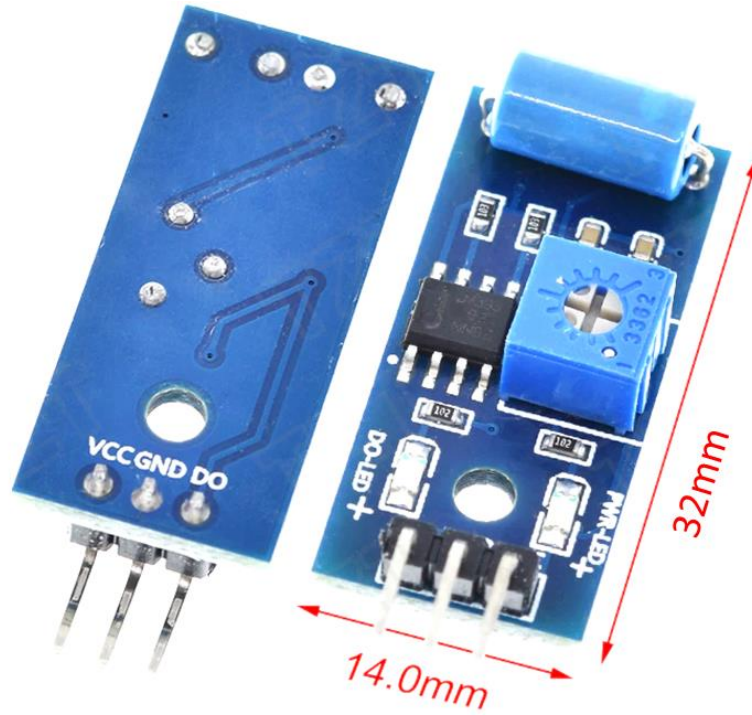
SKU: [SSR1064](#)

Brief Data:

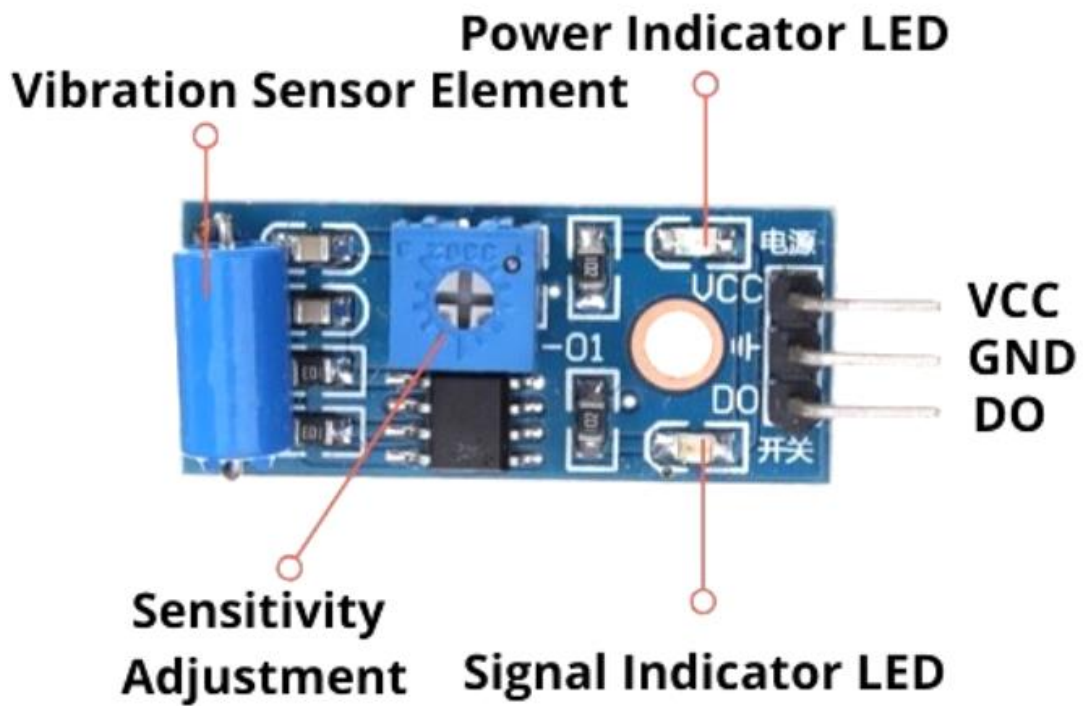
- Name: SW-420 Vibration Sensor Module.
- Operating Voltage: (3.3~5)Vdc.
- Default Output: Normally Close (NC).
- Output: Digital D0.
- On-board signal indicator LED.
- On-board LM393 Op-Amp for Sensitivity Adjustment.
- Module Dimension: 32mm x 14mm.

Mechanical Dimension:

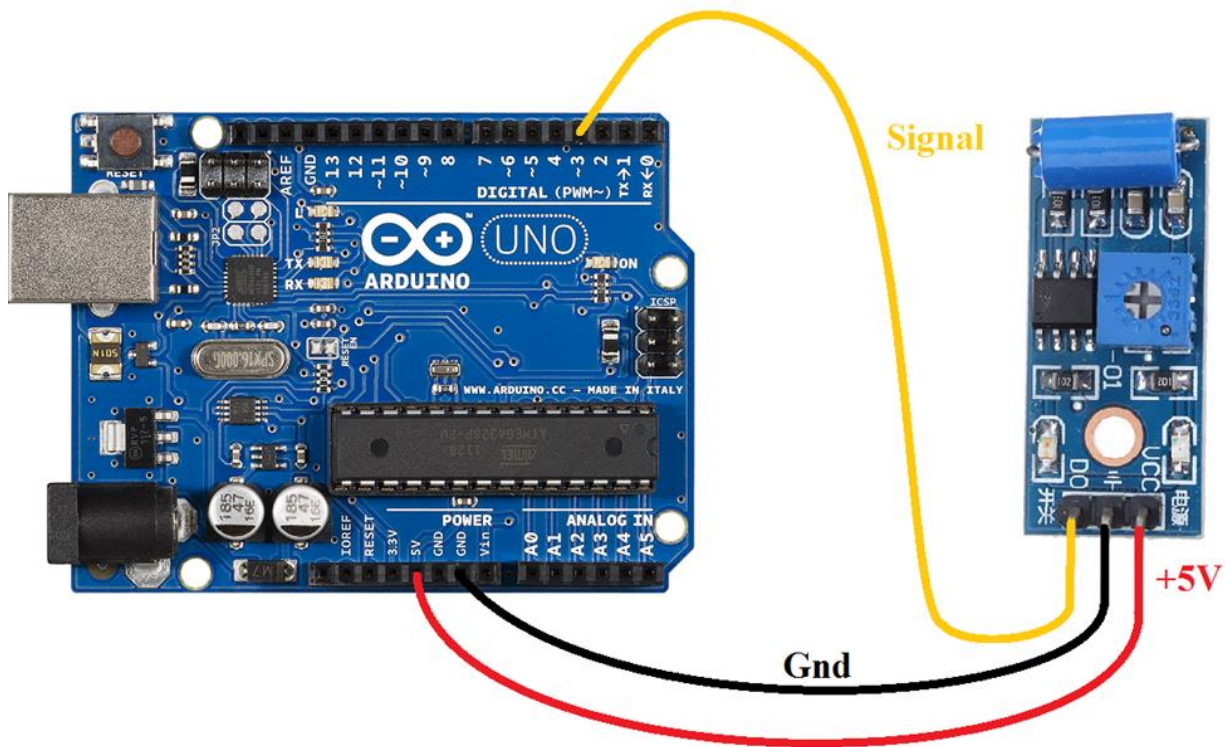
Unit: mm



Pin Function Assignment:



Application Example With Arduino:



Upload the below sketch to the Arduino controller board:

Arduino Code for Value Reading and serial printing Vibration value, this code turns ON the onboard LED when measurement goes greater than 1000, you can adjust this threshold to your need.

```
int LED_Pin = 13;

int vibr_Pin =3;

void setup(){

  pinMode(LED_Pin, OUTPUT);

  pinMode(vibr_Pin, INPUT); //set vibr_Pin input for measurment

  Serial.begin(9600); //init serial 9600

  // Serial.println("-----Vibration demo-----");

}

void loop(){

  long measurement =TP_init();

  delay(50);
```

```
// Serial.print("measurment = ");  
  
Serial.println(measurement);  
  
if (measurement > 1000){  
    digitalWrite(LED_Pin, HIGH);  
}  
  
else{  
    digitalWrite(LED_Pin, LOW);  
}  
}  
  
long TP_init(){  
    delay(10);  
  
    long measurement=pulseIn (vibr_Pin, HIGH); //wait for the pin to get HIGH and returns measurement  
  
    return measurement;  
}
```

Web Resources:

- <https://theorycircuit.com/sw-420-vibration-sensor-arduino-interface/>



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