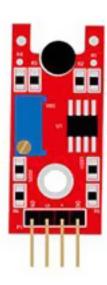
## **Sound Detector Module**

This module has a microphone for detecting sounds and has two outputs:

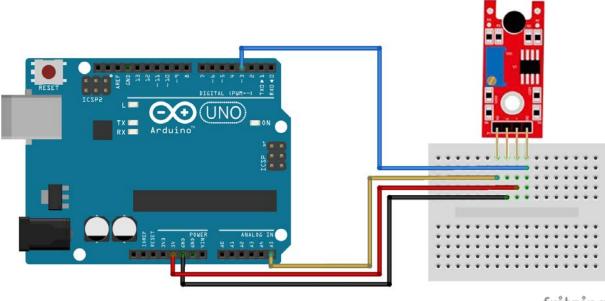
AO: analog output, real-time output voltage signal of the microphone.

DO: digital output, when the sound intensity reaches a certain threshold, the output high and low signal. The threshold-sensitivity can be adjusted via potentiometer on the sensor.



## **Pinout and Connection to Arduino**

Connect + to 5v, GND to ground, AO to pin A5 and DO to pin 3. Only AO or DO needs to be connected depending on desired operation.



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## **Arduino Example Sketch**

The following Arduino Sketch will light the LED when a sound is detected using the digital output.

```
int Led = 13 ;// define LED
int buttonpin = 3; // define DO Sensor
int val = 0; // define numeric variables val

void setup ()
{
    pinMode (Led, OUTPUT) ; // define LED as output
    pinMode (buttonpin, INPUT) ; // output DO is defined sensor
}

void loop ()
{
    val = digitalRead(buttonpin); // read pin 3 to val
    if (val == HIGH) // When sound is detected, LED flashes
    {
        digitalWrite (Led, HIGH);
    }
    else
    {
        digitalWrite (Led, LOW);
    }
}
```

The following Arduino Sketch will output the value from the analog output via serial monitor and blink the LED according to the detected sound level.

```
int sensorPin = A5; // select the input pin for A0
int ledPin = 13; // select the pin for the LED
int sensorValue = 0; // variable to store the value coming from the sensor

void setup ()
{
    pinMode (ledPin, OUTPUT);
    Serial.begin (9600);
}

void loop ()
{
    sensorValue = analogRead (sensorPin);
    digitalWrite (ledPin, HIGH);
    delay (sensorValue);
    digitalWrite (ledPin, LOW);
    delay (sensorValue);
    Serial.println (sensorValue, DEC);
}
```