Mini Microphone Module

The Microphone module can be used for sound/audio detection; it comes with the basic components to get started. Supplying power and it is good to be used. This sensor module can only detect the present of sound/audio, but not to differentiate the sound's level. User may use it to detect sound and further determine whether human or animal is present in a room, maybe for light activate with clap. There is only digital output. Threshold can be adjusted with on board potentiometer for the digital output.

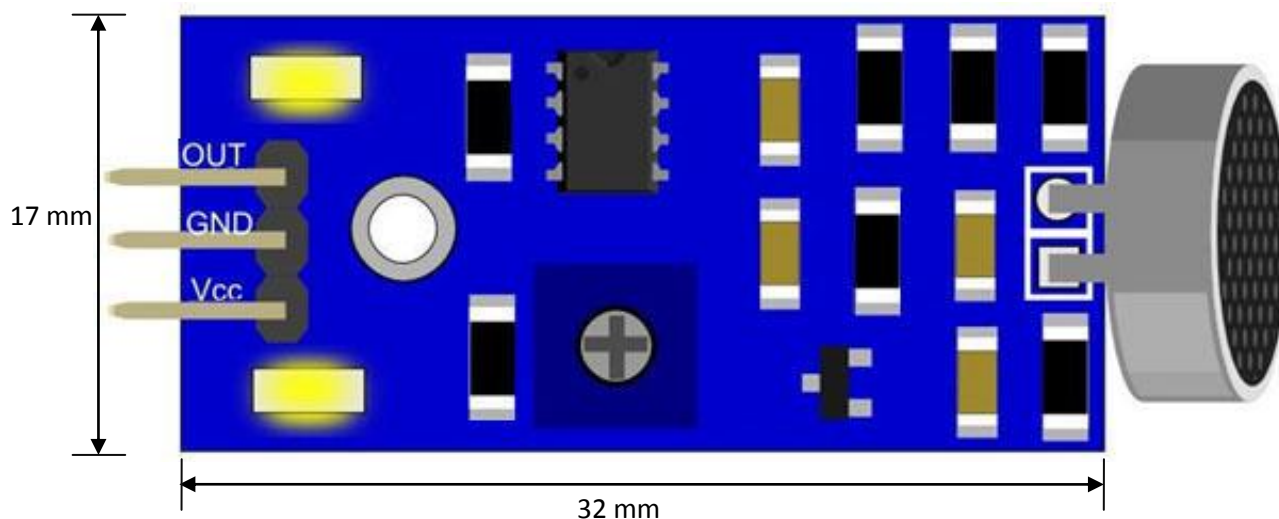## Technical Specifications

Operating voltage: 3.3−5 VDC
Potentiometer Adjustment Direction: clockwise (module sensitive to sound), counterclockwise (module less sensitive to sound)
Dimension: 32mm L×17mm W×60mm H
Weight: 6 g

Dimensions, Configuration and Pin-out

Product dimension:

Pin definitions and ratings:

Pin	Name	Function
VCC	Supply Voltage	Connects to V_{CC}
OUT	Digital Output	Connects to digital output interface (0 and 1)
GND	Ground	Connects to Ground

Mechanism

- Sound module is most sensitive to environmental sound intensity, generally used to sound intensity testing environment.
- Through the adjustment of the potentiometer, detecting the sound threshold can be changed. Clockwise will make module sensitive to sound while counterclockwise will make module less sensitive to sound.
- When the sound intensity of external environment exceeds the preset threshold, the output goes low. Green LED will turn **ON**.
- When the sound intensity of external environment less than the preset threshold, the output goes high. Green LED will remain turn **OFF**.
- Small digital output OUT can be directly connected with the MCU, the MCU to detect high level, thereby to detect environmental sounds.
- Small digital output OUT also can directly drive the relay module, which can be composed of a voice activated switch.

Applications

1) Educational purpose to understand the real microphone mechanism
2) Factory
3) Baby monitoring room