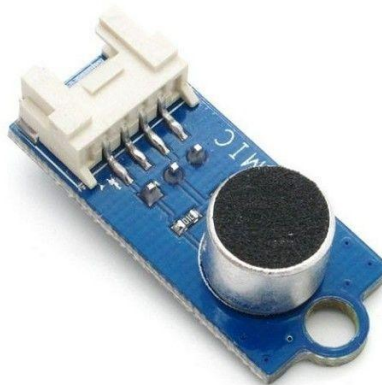ITEAD STUDIO
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Electronic Brick of Microphone

Overview

What is an electronic brick? An electronic brick is an electronic module which can be assembled like Lego bricks simply by plugging in and pulling out. Compared to traditional universal boards and circuit modules assembled with various electronic components, electronic brick has standardized interfaces, plug and play, simplifying construction of prototype circuit on one's own. There are many types of electronic bricks, and we provide more than twenty types with different functions including buttons, sensors, Bluetooth modules, etc, whose functions cover from sensor to motor drive, from Ethernet to wireless communication via Bluetooth, and so on. We will continue to add more types to meet the various needs of different projects.

Electronic brick of microphone can be connected to the analog I / O port, when speaking to the microphone, the analog value will be changed. A recorder can be made by reading and saving the analog value.

Features

1. Plug and Play, easy to use.Compatible with the mainstream 2.54 interfaces and 4-Pin Grove interfaces in the market.

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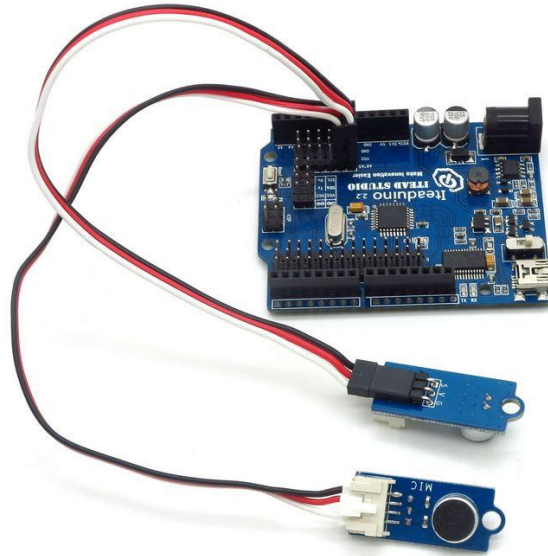
2. With use of M4 standard fixed holes, compatible with M4-standard kits such as Lego and Makeblock
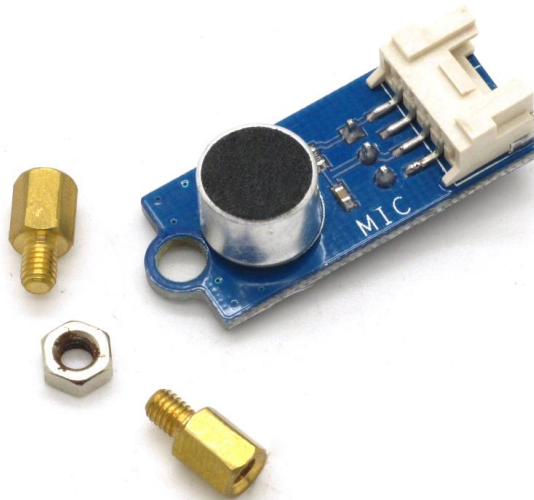
Specifications

PCB Size	33.0mm X 14.0mm X 1.6mm
Working voltage	5V DC
Operating voltage	5V DC
Compatible interfaces	2.54 3-pin interface and 4-pin Grove interface[1]

Note 1: S for digital output port , V and G for voltage at the common collector and ground respectively

Electrical characteristics

Parameter	Min.	Typical	Max.	Unit
Working voltage	4.5	5	5.5	VDC
Digital output voltage（VCC=5V）	0	-	5	V
Working current（5V）	-	260	-	uA
Frequency range	100	-	10000	Hz
Sensitivity	-	-50	-	dB

DEMO

Connect S port of electronic brick of microphone to A0 port of Arduino, and we will use the following program to read the analog value. When the value exceeds the threshold, the LED indicator will flash.

```
const int ledPin =  13;         // the number of the LED pin
const int thresholdvalue=400; //The threshold to turn the led on
void setup() {
      pinMode(ledPin, OUTPUT);
}
void loop() {
   int sensorValue = analogRead(A0); //use A0 to read the electrical signal
   if(sensorValue>thresholdvalue)
   digitalWrite(ledPin,HIGH); //if the value read from A0 is larger than 400,then light the LED
   delay(200);
   digitalWrite(ledPin,LOW);
}
```

Revision Record

Version	Description	Written by	Date
v1.0	First edition	Stan Lee	15th, April, 2013