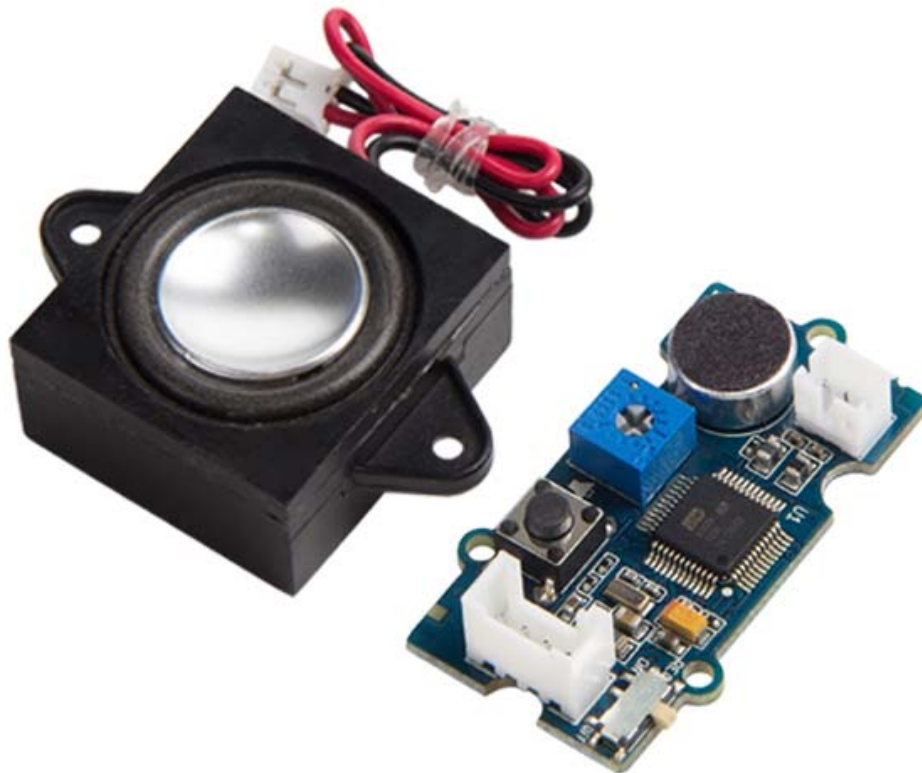




## Grove - Recorder V3



This is the latest version of Grove-recorder, and also the best version. Comparing the previous one, there are some updates that we would like to mention.

First change is MCU. In V3.0, the MCU is upgraded from to be ISD9160FI, which is more powerful than the old one ISD1820PY. How is it more powerful? Together with the newly added 2Mbytes flash, it allows you to record up to 83 seconds, much longer than previous 12 sec record.

Secondly, if you have ever used previous version, you would know that if you want to play back what you have recorded, you need to press another button on the Grove button that connected separately. In V3.0, we integrated the record button and play back button in to one button. By holding the button for 2 sec, it starts recording, by push the button quickly, it plays back what has been recorded.

## What's new in V3

- MCU from ISD1820PY to ISD 9160FI
- Record and playback button
- Record switch
- 2Mbytes flash




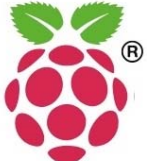

## Features

- Very long record time, up to 83s
- Built-in button to operate
- Built-in led indicator
- Stand alone or control by MCU
- Built-in Microphone

### Tip

More details about Grove modules please refer to [Grove System](#)

## Platform Support

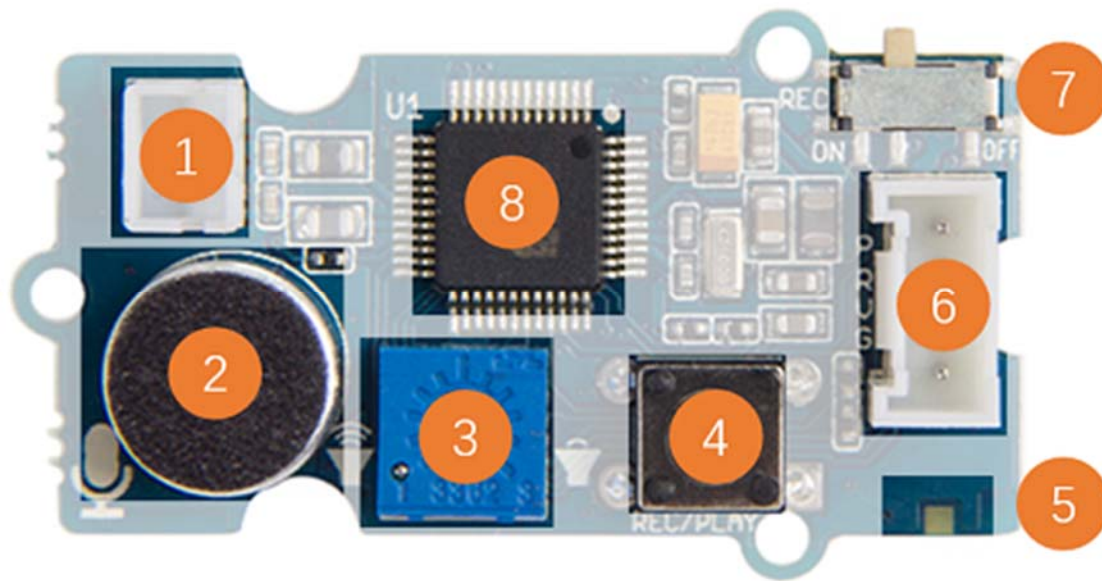
Arduino	Wio	BeagleBone	Raspberry Pi	LinkIt
				

## Specification

- Working Voltage: 3.3V
- Working Current (@5V, 25°C)
  - Standby: 25-30mA
  - Recording: 29-35mA
  - Playing: 110-150mA
- Working Current (@3.3V, 25°C)
  - Standby: 23-25mA
  - Recording: 25-30mA

- Playing: 70-150mA
- Working Temperature: 0~85°C
- Size: 40x20mm
- Weight: 31.5g

## Hardware Overview



1.Speaker Connector - JST2.0

2.Microphone

3.Voice Control

4.Button

- Short Press and Release: Play
- Long Press: Start recording until release the button

5.Led Indicator

- Red led, lights when button press

6.Grove Connector


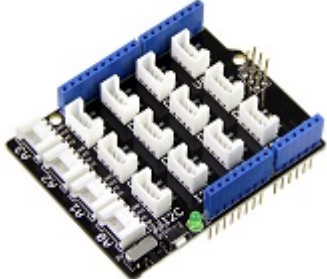
7.REC Switch

- Switch to ON if you want to control the module to record vis Software

8.MCU

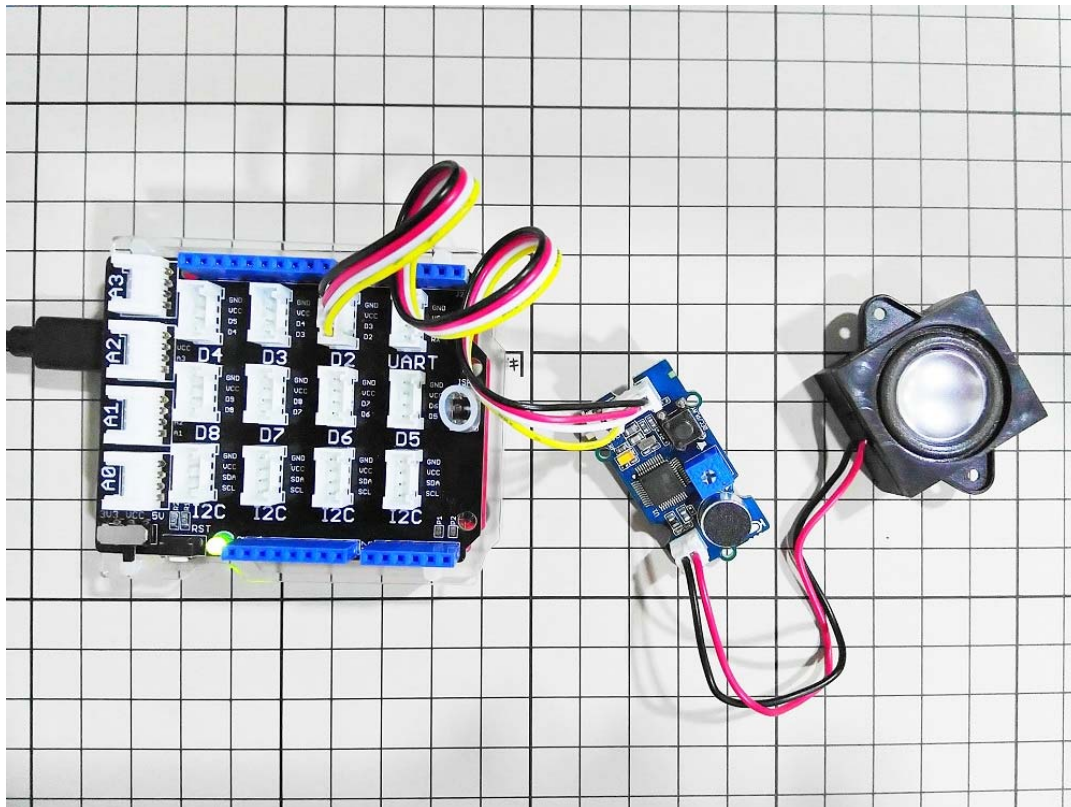
## Getting Started

Here we will show you how this Grove - Recorder V3.0 works via a simple demo. First of all, you need to prepare the below stuffs:

Seeeduino V4	Grove - Recorder	Base Shield
		

## Hardware Connection

Thanks to the benefit of Grove series module, you don't need to make soldering or bread board, what you need to do is connect the modules to the right port of Base Shield. For this demo, we connect Grove - Recorder to D2.



## Standalone

This module can work standalone without coding.

- **Record** - Press the button until the LED light, and it's recording, release the button when finish recording.
- **Play** - Press and release the button to play the voice that had been recorded.

If you want to control the module by code. please go ahead.

## Software

Copy the below code and paste to your Arduino IDE, and upload to your Seeeduno V4. After upload the code to an Arduino, then open the Serial monitor.

```
1/* Grove - Recorder Test Code
2+-----+
3|   Open Serial Monitor and input command to control the module:
4|   r - start recording
5|   s - stop recording
6|   p - play
7+-----*/
8
9const int pinRec = 3;
10const int pinPlay = 2;
11
12void setup()
13{
14   Serial.begin(115200);
15   Serial.println("Grove - Recorder V3.0 Test Code");
16   Serial.println("cmd: \r\nr: record\r\ns: stop recording\r\np: play");
17
18   pinMode(pinRec, OUTPUT);
19   pinMode(pinPlay, OUTPUT);
20   digitalWrite(pinRec, HIGH);
21   digitalWrite(pinPlay, HIGH);
22}
23
24void loop()
25{
26   if(Serial.available())
27   {
28       char c = Serial.read();
29       if(c == 'r')           // begin to record
30       {
31           digitalWrite(pinRec, LOW);
32           Serial.println("start recording...");
33       }
34       else if(c == 's')     // stop recording
35       {
36           digitalWrite(pinRec, HIGH);
37           Serial.println("stop recording...");
38       }
39       else if(c == 'p')     // play
```

```
40     {
41         digitalWrite(pinPlay, LOW);
42         delay(100);
43         digitalWrite(pinPlay, HIGH);
44         Serial.println("play...");
45     }
46 }
47 }
```

## Enter Command

You can enter some command in Serial monitor:

- **Start recording** - Enter a 'r'
- **Stop recording** - Enter a 's'
- **Play** - Enter a 'p'

## Tech Support

Please submit any technical issue into our [forum](#) or drop mail to [techsupport@seeed.cc](mailto:techsupport@seeed.cc).