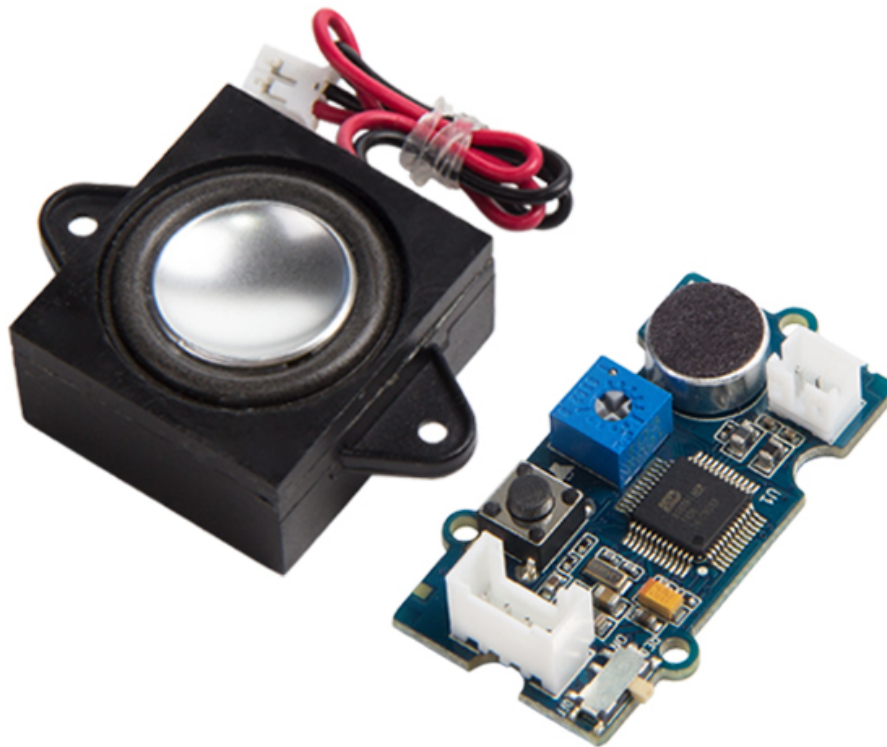


Grove - Recorder V3



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](https://wiki.seeedstudio.com/Grove_System/)
[https://wiki.seeedstudio.com/Grove_System/]

Platform Support

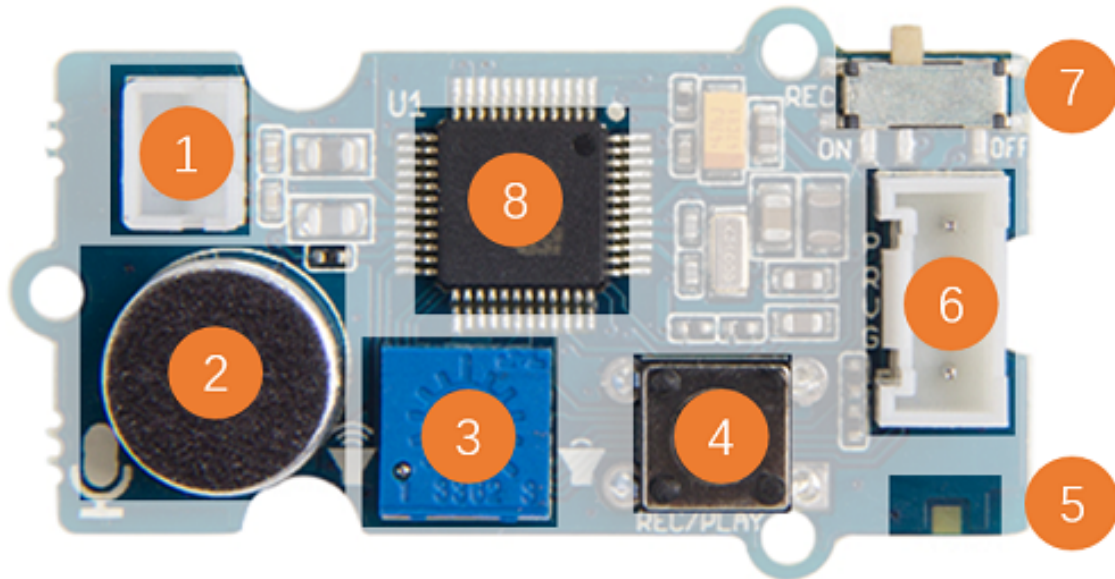
Arduino	Wio	BeagleBone	Raspberry Pi	LinkIt
				

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 via Software

8.MCU

Getting Started

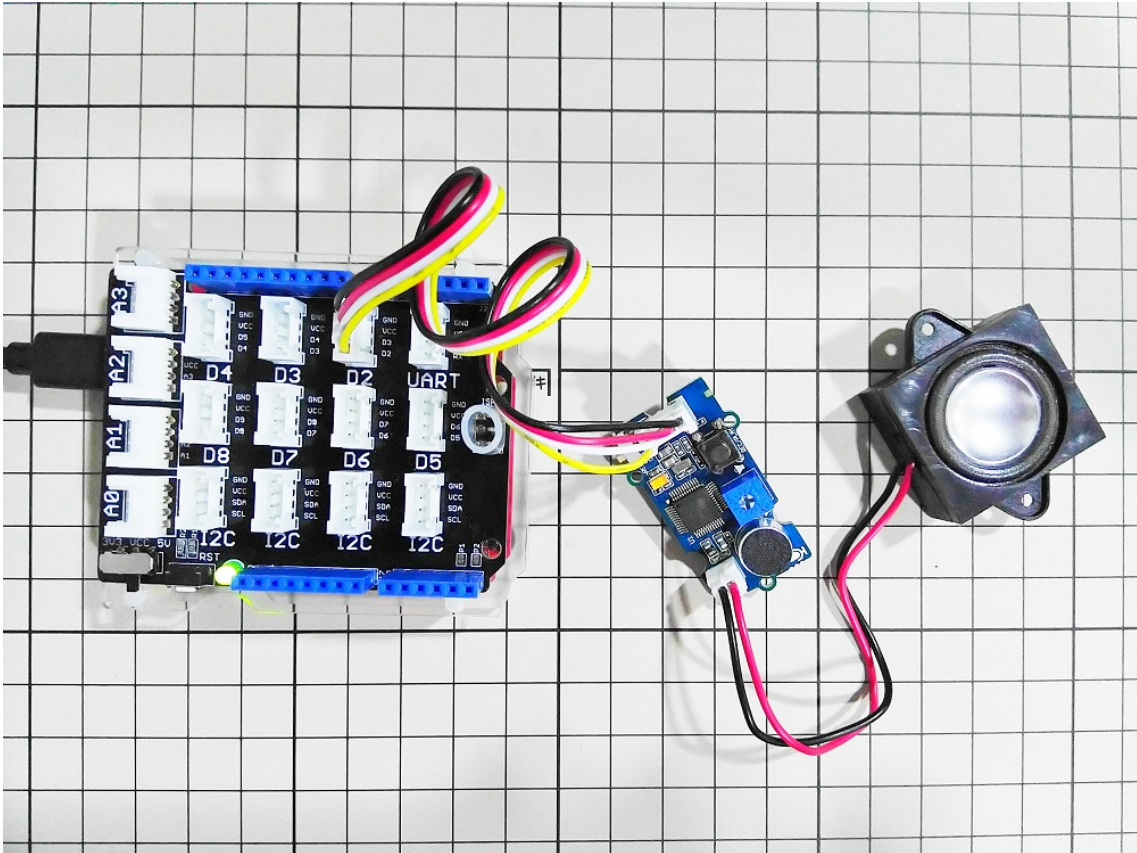
Here we will show you how this Grove - Recorder V3.0 works via a simple demo. First of all, you need to prepare the below stuffs:

Seeeduino V4	Grove - Recorder
	
<p>Get ONE Now [https://www.seeedstudio.com/Seeeduino-V4.2-p-2517.html]</p>	<p>Get ONE Now [https://www.seeedstudio.com]</p>

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 Seeeduino 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
4  |   r - start recording
5  |   s - stop recording
6  |   p - play
7  +-----
8
9  const int pinRec  = 3;
10 const int pinPlay = 2;
11
12 void 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 record
17
18     pinMode(pinRec, OUTPUT);
19     pinMode(pinPlay, OUTPUT);
20     digitalWrite(pinRec, HIGH);
21     digitalWrite(pinPlay, HIGH);
22 }
23
24 void 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'

Play with Codecraft

Hardware

Step 1. Connect a Grove - Record to port D2 of a Base Shield.

Step 2. Plug the Base Shield to your Seeduino/Arduino.

Step 3. Link Seeduino/Arduino to your PC via an USB cable.

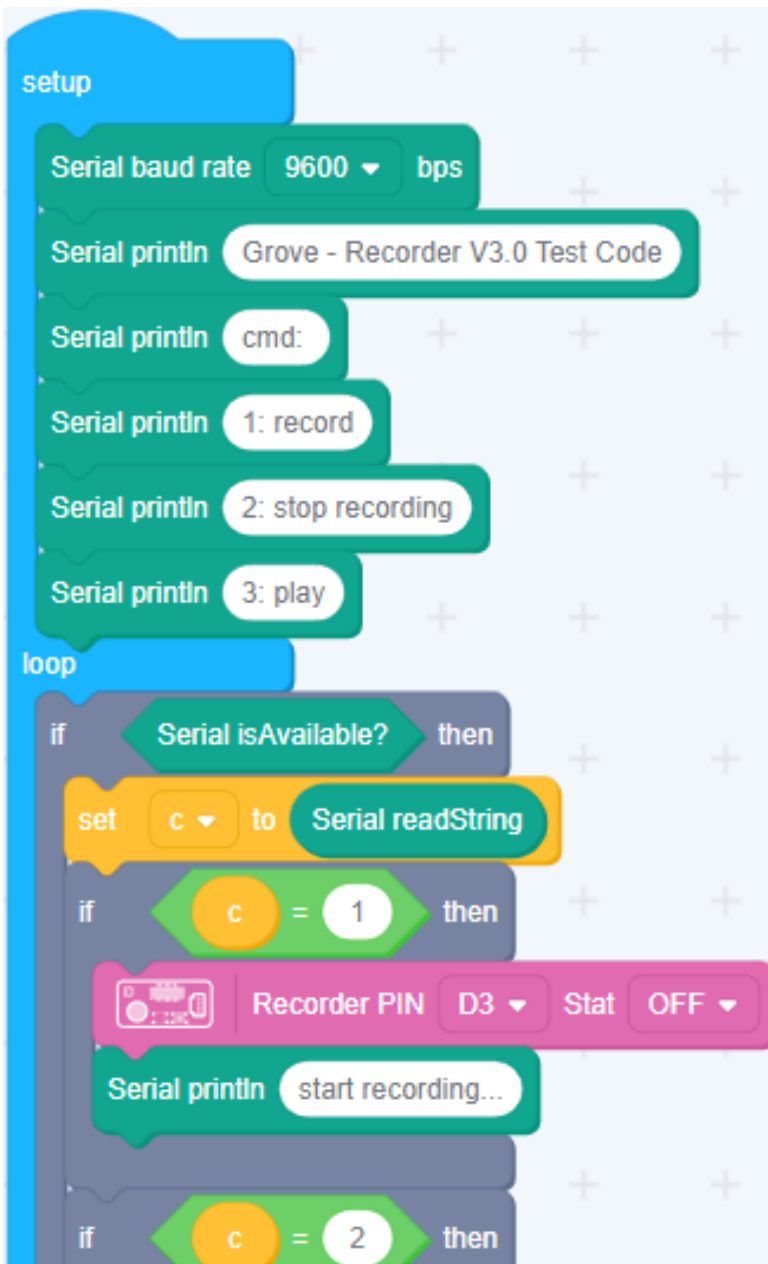
Software

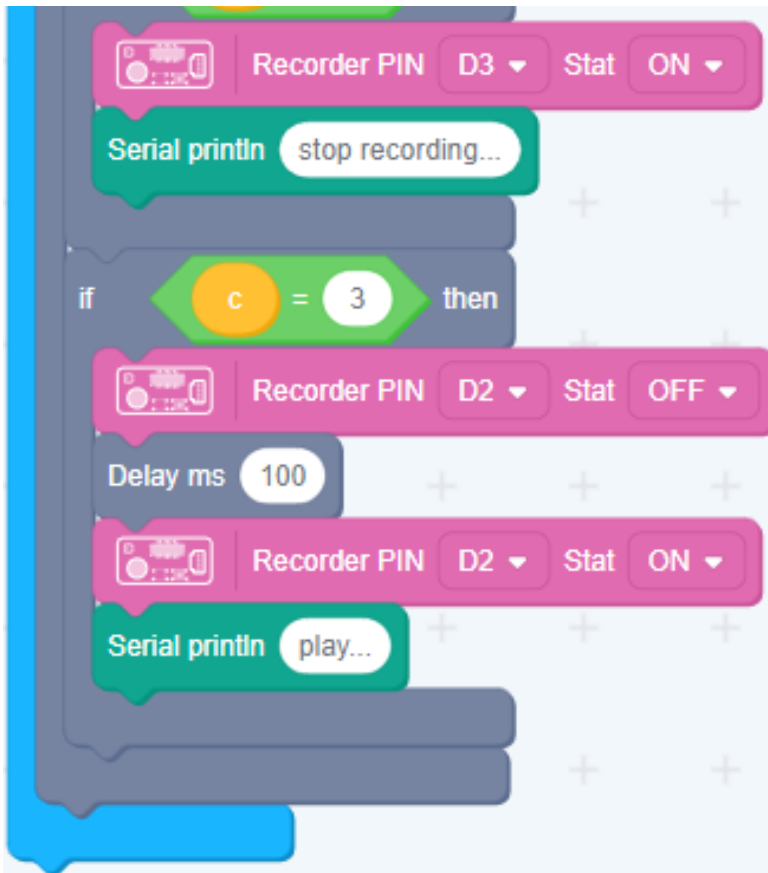
Step 1. Open [Codecraft](https://ide.chmakered.com/) [https://ide.chmakered.com/], add Arduino support, and drag a main procedure to working area.

**Note**

If this is your first time using Codecraft, see also [Guide for Codecraft using Arduino](https://wiki.seeedstudio.com/Guide_for_Codecraft_using_Arduino/) [https://wiki.seeedstudio.com/Guide_for_Codecraft_using_Arduino/].

Step 2. Drag blocks as picture below or open the cdc file which can be downloaded at the end of this page.





Upload the program to your Arduino/Seeeduino.



Success

When the code finishes uploaded, you can use Recorder to record and play via Serial Monitor.

Schematic Online Viewer



Resources

- [Schematics in PDF](https://files.seeedstudio.com/wiki/Grove_Recorder_V3/res/Grove%20-%20Recorder%20v3.0a.pdf)
[https://files.seeedstudio.com/wiki/Grove_Recorder_V3/res/Grove%20-%20Recorder%20v3.0a.pdf]
- [Schematics in Eagle](https://files.seeedstudio.com/wiki/Grove_Recorder_V3/res/eagle.zip)
[https://files.seeedstudio.com/wiki/Grove_Recorder_V3/res/eagle.zip]

- [Codecraft CDC File](#)

[https://files.seeedstudio.com/wiki/Grove_Recorder/res/Grove_Recorder_CDC_File.zip]

Tech Support

Please submit any technical issue into our [forum](#)

[<https://forum.seeedstudio.com/>].



[https://www.seeedstudio.com/act-4.html?utm_source=wiki&utm_medium=wikibanner&utm_campaign=newproducts]