



Grove - Vibration Motor User Manual

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Version: 1.0

Wiki: http://www.seeedstudio.com/wiki/Grove_-_Relay

Bazaar: http://www.seeedstudio.com/depot/Grove-Vibration-Motor-p-839.html?cPath=39_40

Document Revision History

Revision	Date	Author	Description
1.0	Sep 22, 2015	Loovee	Create file

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Disclaimer

For physical injuries and possessions loss caused by those reasons which are not related to product quality, such as operating without following manual guide, natural disasters or force majeure, we take no responsibility for that.

Under the supervision of Seeed Technology Inc., this manual has been compiled and published which covered the latest product description and specification. The content of this manual is subject to change without notice.

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1. Introduction

This is a mini vibration motor suitable as a non-audible indicator. When the input is HIGH, the motor will vibrate just like your cell phone on silent mode.



2. Features

- Grove compatible
- Non-audible
- Low power consumption
- High reliability

3. Specification

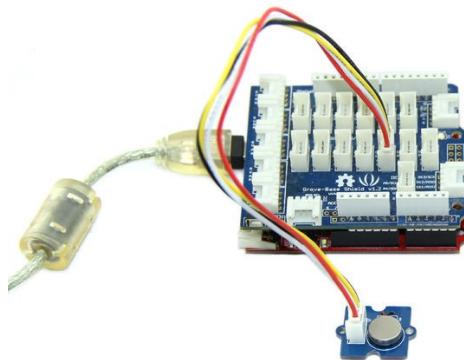
Item	Min	Typ	Max
Operate Voltage	2.0V	5.0V	5.5V
Control Mode	Logic Level (When Logic HIGH, the motor is ON. When LOW, the motor is OFF.)		
Rate Speed		9000rpm	

4. Usage

4.1 With Arduino

To make it vibrate is just as easy as to turn on an LED. Here is an example showing how to turn on the vibration motor.

1. Plug it onto the Digital port 9 of Grove - Base Shield using a Grove cable.
2. Plug the Grove - Base Shield onto Arduino.



3. Connect Arduino to PC by using a USB cable.
4. Copy and paste code below to a new Arduino sketch, and upload it to your Arduino. Please click [here](#) if you do not know how to upload.

Demo code like:

```
int MoPin = 9;    // vibrator Grove connected to digital pin 9

void setup() {
  pinMode( MoPin, OUTPUT );
}

void loop() {

  digitalWrite(MoPin, HIGH);
  delay(1000);

  digitalWrite(MoPin, LOW);
  delay(1000);
}

}
```


Now, feel the vibration of your motor!

4.2 With Raspberry Pi

1. You should have got a raspberry pi and a grovepi or grovepi+.
2. You should have completed configuring the development enviroment, otherwise follow [here](#).
3. Connection
 - Plug the sensor to grovepi socket D8 by using a grove cable.

4. Navigate to the demos' directory:

```
cd yourpath/GrovePi/Software/Python/
```

- To see the code

```
nano grove_vibration_motor.py  # "Ctrl+x" to exit #
import time
import grovepi

# Connect the Grove Vibration Motor to digital port D8
# SIG, NC, VCC, GND
vibration_motor = 8

grovepi.pinMode(vibration_motor, "OUTPUT")

while True:
    try:
        # Start vibrating for 1 second
        grovepi.digitalWrite(vibration_motor, 1)
        print 'start'
        time.sleep(1)

        # Stop vibrating for 1 second, then repeat
        grovepi.digitalWrite(vibration_motor, 0)
        print 'stop'
        time.sleep(1)

    except KeyboardInterrupt:
        grovepi.digitalWrite(vibration_motor, 0)
        break
    except IOError:
        print "Error"
```

5. Run the demo.

```
sudo python grove_vibration_motor.py
```

5. Version Tracker

Revision	Descriptions	Release
v0.9b	Initial public release	May 10, 2011
v1.0	directly use a I/O port to drive vibration Motor	Nov 5, 2011
v1.2	add a transistor, use bigger current to drive Vibration Motor	July 11, 2013

6. Resources

- [Grove - Vibration Motor Eagle File](#)
- [S9013datasheet](#)
- [ANDA-B1020_datasheet](#)

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