Grove – Relay User Manual

Release date： 2015/9/22

Version： 1.0

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

Bazaar: http://www.seeedstudio.com/depot/Grove-Relay-p-769.html?cPath=39_42

Document Revision History

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

Contents

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.

Copyright

1. Introduction

The Grove-Relay module is a digital normally-open switch. Through it, you can control circuit of high voltage with low voltage, say 5V on the controller. There is an indicator LED on the board, which will light up when the controlled terminals get closed.

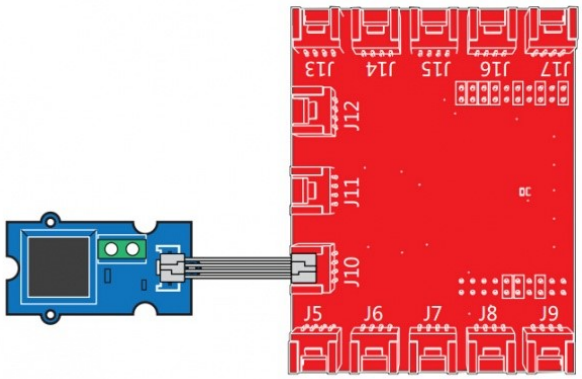
2. Specifications

Parameter	v1.1	v1.2
Product Release Date	27th Jan 2013	9th June 2014
Operating Voltage	5V	3.3/5V
Operating Current	60mA	100mA
Relay Life	100,000 Cycle	100,000 Cycle
Max Switching Voltage	250VAC/30VDC	250VAC/30VDC
Max Switching Current	5A	5A

3. Usage

3.1 With TI LaunchPad

This example showcases how to use the Grove-relay module to control larger load, i.e. a desk lamp light. A 3V voltage signal can cause the relay to switch on, allowing current to flow through the connected appliance.



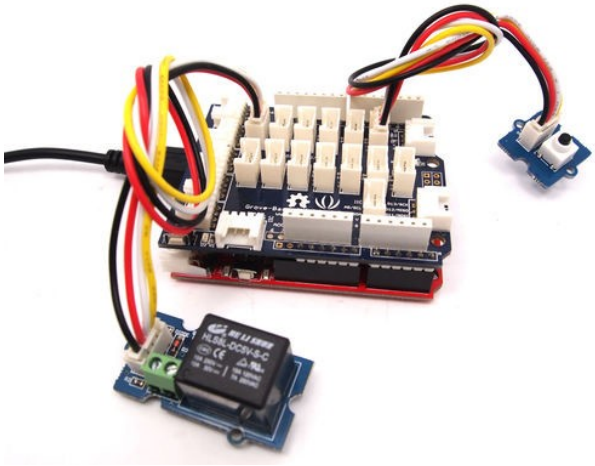

```
/*
Relay
The basic Energia example.
This example code is in the public domain.
*/

#define RELAY_PIN 39

// the setup routine runs once when you press reset:
void setup() {
    pinMode(RELAY_PIN, OUTPUT); // initialize the digital pin as an output.
}

// the loop routine runs over and over again forever:
void loop() {
    digitalWrite(RELAY_PIN, HIGH); // turn the relay on (HIGH is the voltage level)
    delay(1000);   // wait for a second
    digitalWrite(RELAY_PIN, LOW);   // turn the relay o by making the voltage LOW
    delay(1000);   // wait for a second
}
```

3.2 With Arduino



Below is a demo that shows you how to control a Grove - Relay with a Grove - Button. When the button gets pressed, the relay will close.

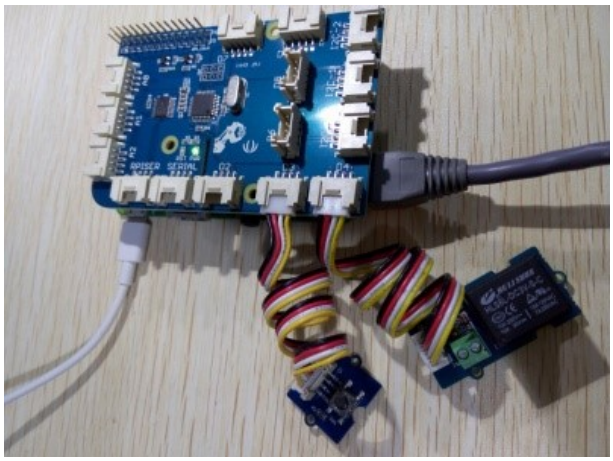
```
// Project Five - Relay Control
//

void setup()
{
  pinMode(1, INPUT);
  pinMode(2, INPUT);
  pinMode(6, OUTPUT);
}

void loop()
{
  if (digitalRead(1)==HIGH)
  {
    digitalWrite(6, HIGH);
    delay(100);
  }
  if (digitalRead(2)==HIGH)
  {
    digitalWrite(6, LOW);
  }
}
```

3.3 With Raspberry Pi

This sample is show you how to use Grove - Relay by Raspberry Pi. The demo below will show that the relay be control by Grove -Button.



```
# Raspberry Pi + Grove Switch + Grove Relay

import time
import grovepi
# Connect the Grove Switch to digital port D3
# SIG,NC,VCC,GND

switch = 3
# Connect the Grove Relay to digital port D4
# SIG,NC,VCC,GND

relay = 4
grovepi.pinMode(switch,"INPUT")
grovepi.pinMode(relay,"OUTPUT")
while True:
    try:
        if grovepi.digitalRead(switch):
            grovepi.digitalWrite(relay,1)
        else:
            grovepi.digitalWrite(relay,0)
            time.sleep(.05)
    except KeyboardInterrupt:
        grovepi.digitalWrite(relay,0)
        break
    except IOError:
        print "Error"
```

Run the program

- Find the path to the file(According to your own path)

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

- Run Program

```
sudo python grove_switch_relay.py
```

4. Resources

- Grove - Relay Eagle File
- Relay_Datasheet
- how to upload code
- Buy it

X-ON Electronics

Largest Supplier of Electrical and Electronic Components

Click to view similar products for Seeed Studio Accessories ***category:***

Click to view products by Seeed Studio ***manufacturer:***

Other Similar products are found below :

101990565 101990564 101020003 101020004 101020025 101020028 101020038 101020058 101020472 101020580 101990029
101990058 101990059 101990061 101990064 101990065 102020143 102070002 102070004 102070007 102070008 102070011
102991175 102991176 102991319 103010002 103020005 103020007 103020008 103020010 103020012 103020030 103020132
103020133 103020135 103020136 103020137 103020252 103020272 103030005 103030009 103030075 103030275 103030276
103030335 103100063 103990183 103990445 104020006 104020048