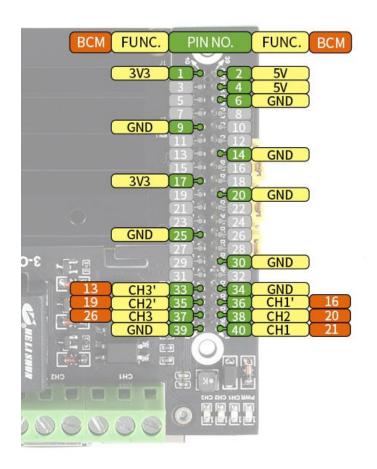
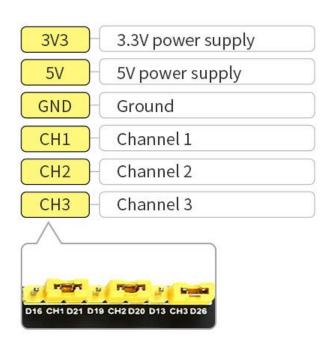
# 3-CH Relay for Jetson Nano

- Standard 40PIN GPIO header, directly pluggable onto the Jetson Nano
- Incorporate quality relay component, max load: ≤5A 250V AC or ≤5A 30V DC
- Optocoupler isolation, prevent interference from the high voltage circuitry
- Indicators for monitoring the relay operating status
- Control pins of relays are configurable via jumpers
- Acrylic bottom panel, isolating the Jetson Nano from the relay expansion board

## **Pinout**





### **Pins**

The pins which are used for cotnrolling the channle of Relay are listed:

Channel	BCM	Dexceiption
CH1	P21/P16	Channel 1
CH2	P20/P19	Channel 2
CH3	P26/P13	Channel 3

[Note] The silk printing of PCB is based on BCM libraries.

### **Jumpers**

Relay\_JMP is used to configure the control pins. If you plug the jumpers on the pins, channels are connected to the GPIO of Jetson for controlling.

For example, if you want to stack two relay boards for 6-CH, you can stack board A on the board B and: Set the jumpers of board A on D21, D20, D26. Set the jumpers of board B on D16, D19, D13.

### **Examples**

#### **Download Demo Codes**

Open a terminal, download the demo codes and unzip it

```
sudo apt-get install p7zip
wget https://www.waveshare.com/w/upload/f/f8/3-ch_Realy_for_jetsonnano.7z
7zr x 3-ch_Realy_for_jetsonnano.7z -r -o./3-ch_Realy_for_jetsonnano
cd 3-ch_Realy_for_jetsonnano
```

### Testing

Hardware configuration: set the jumpers on D21, D20, D26 (default setting) Go to the directory 3-ch\_Realy\_for\_jetsonnano and run the following commands:

```
sudo python test.py
```

Expect result: The Relay channels onboard are toggled and the LEDs indicate according to the status of the channel. You can press Ctrl+C to

#### Web Control

The example use python Web framework to control the Relay board. Open a terminal and run the following commands:

```
sudo apt-get install python-bottle
cd python-bottle
sudo python main.py
```

Open a chrome browser, and go to page [IP of Jetson nano ]:8080.

for example: 192.168.1.11:8080

Then you can click the icon on the Webpage to troggle the relay.

## **Document**

• <u>Schematic</u>

# **Demo Codes**

• <u>Demo Code</u>

**Technical Support**