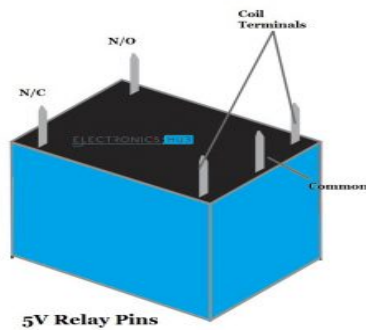


Week 7

Aim: switch on relay given using cron where relay contact terminals are connected to a load

Relay

In layman terms, a relay is a switch. Technically speaking, a relay is an electromagnetic switch where a small control signal (usually from a microcontroller) at the input of the Relay will control a high voltage supply (usually AC mains). Since this is a Raspberry Pi based project, let us talk with respect to Raspberry



Components Required

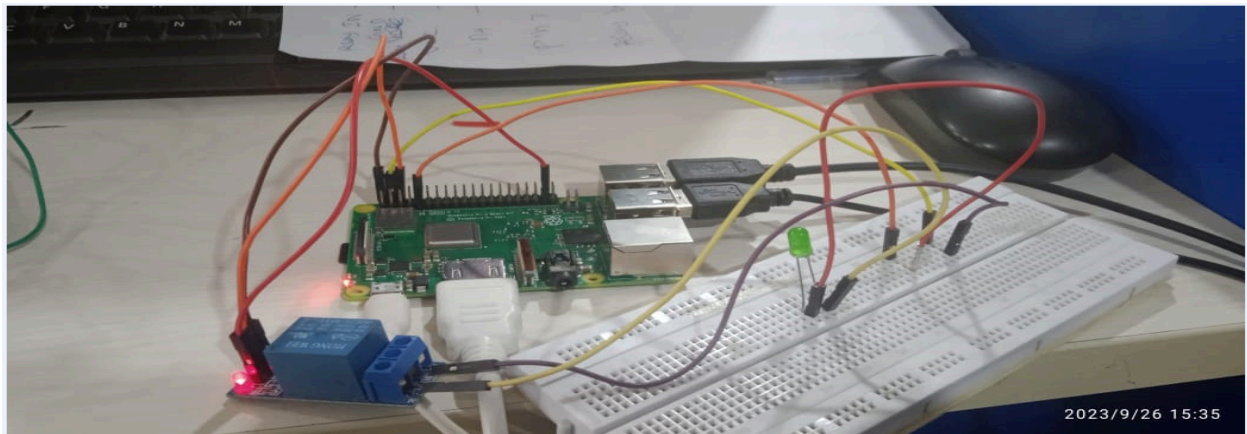
- Raspberry Pi 3 Model B
- 5V Relay Module
- Two Small Incandescent Bulbs (for demonstration in the output)
- Connecting wires
- Power Supply
- Computer

Working

The main concept behind this project is to understand the working and use of a relay and also control a relay using Raspberry Pi.

There is nothing special going in the project. All you need to do is to control the GPIO pins connected to the Relay Module. If the GPIO Pin is made HIGH, the corresponding load will be switched ON. To turn OFF the load, make the GPIO pin LOW.

Connections:



Code:

```
1 import time
2 import RPi.GPIO as GPIO
3 LedPin=18
4 relay_ch=26
5 GPIO.setmode(GPIO.BCM)
6 GPIO.setup(relay_ch, GPIO.OUT)
7 GPIO.output(relay_ch, GPIO.LOW)
8 time.sleep(1)
9 GPIO.output(relay_ch, GPIO.HIGH)
10 GPIO.cleanup()
11
```

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Output:

Relay on

Led on

