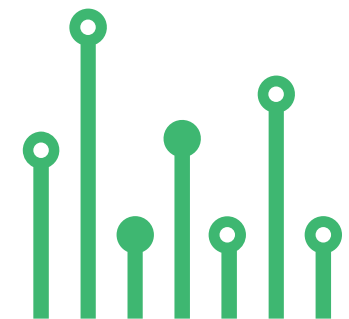


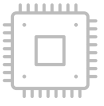
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MICROCONTROLLER



2 Channel Wi-Fi Relay Module Using ESP8266 NodeMCU



SKU: EL140830

MICROCONTROLLER

2 Channel Wi-Fi Relay Module Using ESP8266 NodeMCU



The project described here is an ESP8266 NodeMCU Two Channel Relay Module. This board enables users to control 2 x relays remotely. The 2 channels can be controlled remotely using a webserver/WiFi connection. The project works with 5VDC. Two LEDs indicate relay operation. Screw terminals help user to connect devices and power the supply. Relay output has 3 contacts normally closed, normally open, and common. Relay can drive a load up to 10A/250VAC or 10A/30VDC. It can be used in applications such as IoT and smart Home/Home automation.

The board can be connected to a server through a TCP Client and also can be controlled by HTTP. With this module, users can upload firmware and can create a versatile IoT project. It is suitable for your smart home and IoT project with network control.

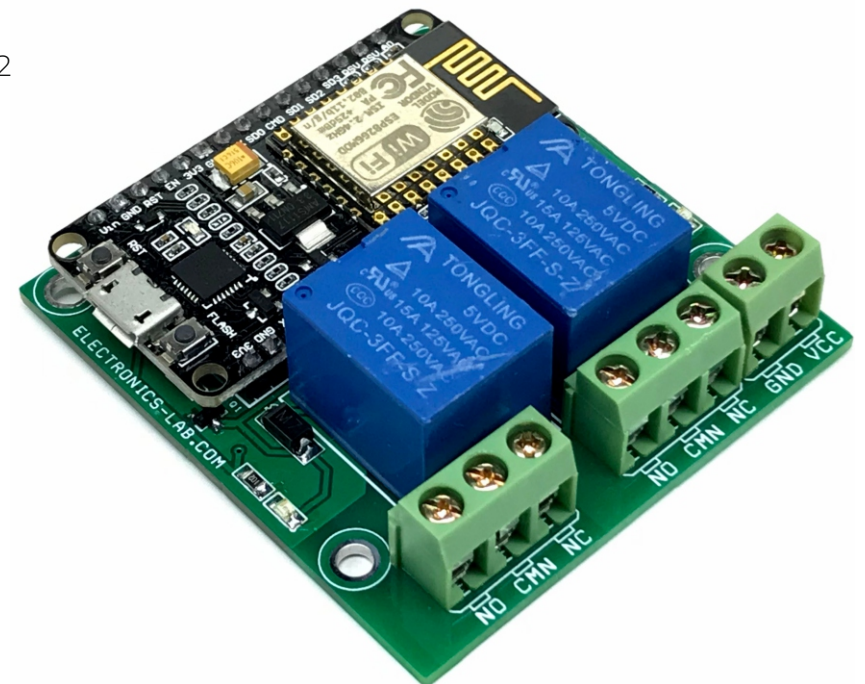
More details about the software and code are available here:

<https://randomnerdtutorials.com/esp8266-relay-module-ac-web-server/>

https://www.easyelectronics.in/index.php?route=product/product&product_id=152

FEATURES

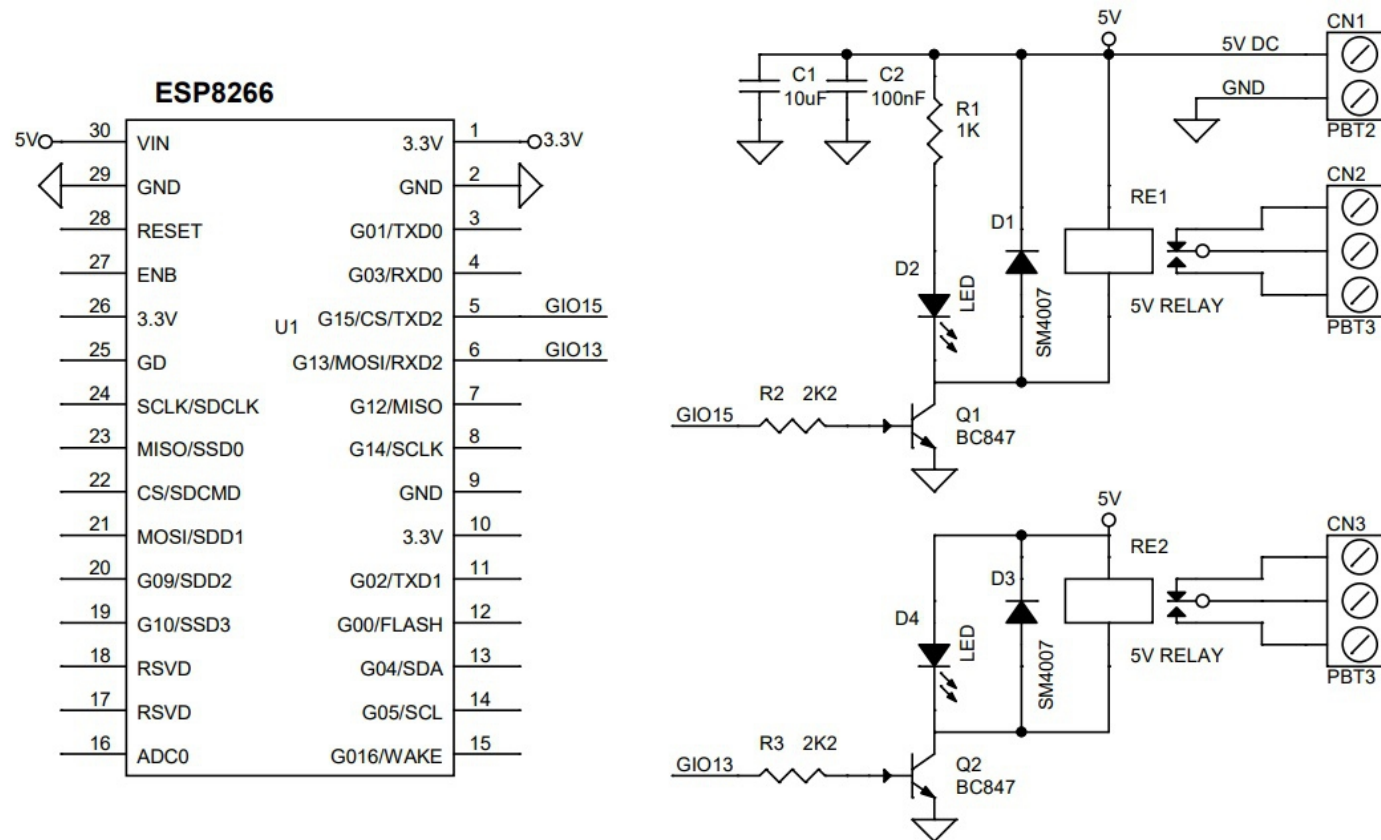
- Power Supply 5V DC
- Current 100mA (When Relay are on)
- 2 X Relay LED
- 4 X 3MM Mounting Holes
- Screw Terminal for Easy Connections
- PCB Dimensions 57.63MM X 53.98 MM



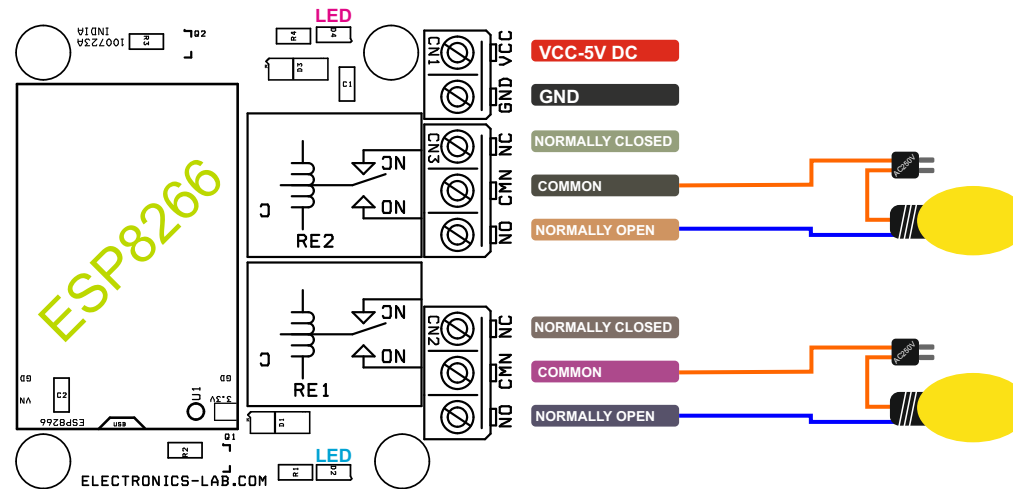
FEATURES

- ESP8266 MCUNODE (WiFi)
- 2 x 5V Relay 2 x LEDs Relay Operations
- 2 x 3 Pin Screw Terminals (Relay Output Normally Open, Normally Closed and Common Connections)
- 2 Pin Screw Terminal Power Input 5V DC
- 2 x BJT (Transistors) drive relays
- 2 x Flyback diodes
- ESP8266 GPIO15 Connected to Relay 1
- ESP8266 GPIO13 Connected to Relay 2

Schematic



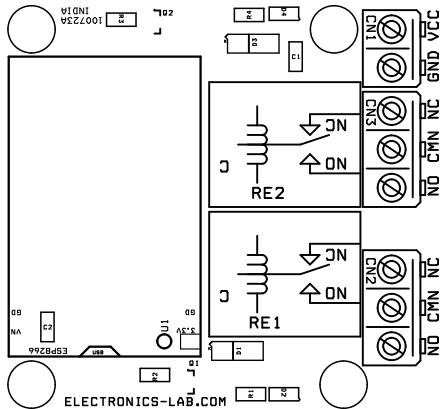
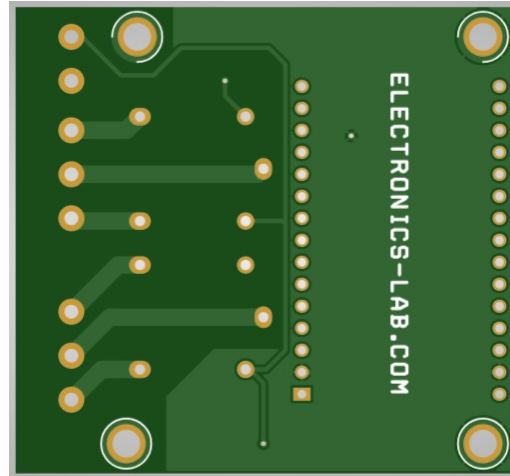
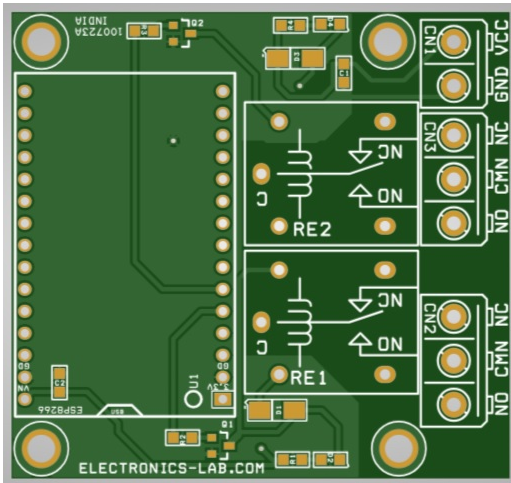
Connections



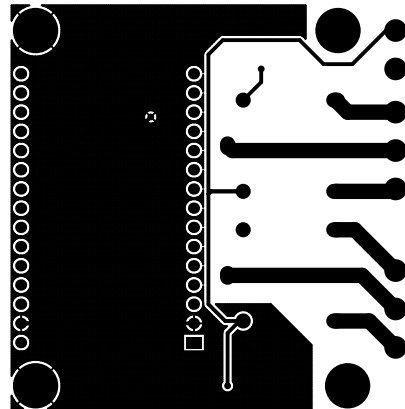
CONNECTIONS AND OTHER DETAILS

- CN1 Power Supply: Pin 1 = 5V DC, Pin 2 = GND
- CN2: Pin 1 Normally Closed, Pin 2 = Common, Pin 3 = Normally Open (Relay 1 Contacts)
- CN3: Pin 1 Normally Closed, Pin 2 = Common, Pin 3 = Normally Open (Relay 2 Contacts)
- D2: LED for Relay 1
- D4: LED for Relay 2

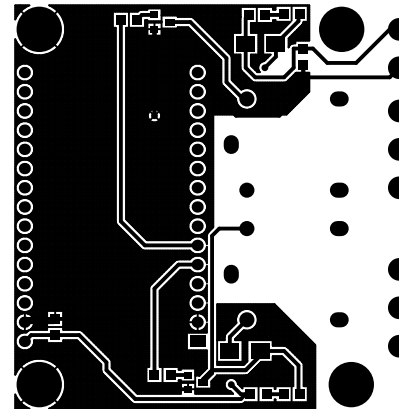
PCB



SILK SCREEN TOP



BOTTOM LAYER

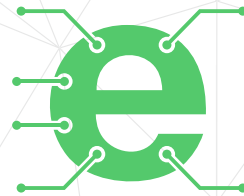


TOP LAYER

PCB DIMENSIONS 57.63 X 53.98MM

Parts List

| BOM | | | | | | |
|-----|------|---------|-----------------------------------|------------------|----------|-----------------------|
| NO | QNTY | REF | DESC | MANUFACTURER | SUPPLIER | SUPPLIER PART NO |
| 1 | 1 | CN1 | 2 PIN SCREW TERMINAL PITCH 5.08MM | PHOENIX | DIGIKEY | 277-1247-ND |
| 2 | 2 | CN2,CN3 | 3 PIN SCREW TERMINAL PITCH 5.08MM | PHOENIX | DIGIKEY | 277-1248-ND |
| 3 | 1 | C1 | 10uF/10V CERAMIC SMD SIZE 0805 | YAGEO/MURATA | DIGIKEY | |
| 4 | 1 | C2 | 100nF/50V CERAMIC SMD SIZE 0805 | YAGEO/MURATA | DIGIKEY | |
| 5 | 2 | D1,D3 | SM4007 SMD | DIODE INC | DIGIKEY | S1MBDITR-ND |
| 6 | 2 | D2,D4 | LED RED SMD SIZE 0805 | OSRAM | DIGIKEY | 475-1278-1-ND |
| 7 | 2 | Q1,Q2 | BC847 | NEXPERIA | DIGIKEY | 1727-2924-2-ND |
| 8 | 2 | RE1,RE2 | 5V RELAY | AMERICAN/ZETTLER | DIGIKEY | 3385-AZ943-1CH-5DE-ND |
| 9 | 1 | R1 | 1K 5% SMD SIZE 0805 | YAGEO/MURATA | DIGIKEY | |
| 10 | 2 | R2,R3 | 2K2 5% SMD SIZE 0805 | YAGEO/MURATA | DIGIKEY | |
| 11 | 1 | U1 | ESP8266NODEMCU MODULE | EBAY/ALIEXPRESS | DIGIKEY | EBAY/ALIEXPRESS |



Keep
In touch..

electronics-lab
.com

info@electronics-lab.com
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from ideas to **boards**

