

## Home Automation With Android application and Google Assistance

Google assistant is AI (Artificial Intelligence) based voice command service. Using voice, we can interact with the google assistant and it can search on the internet, schedule events, set alarms, control appliances, etc.

This service is available on smartphones and Google Home devices.

We can control smart home devices including lights, switches, fans, and thermostats using our Google Assistant.

Google Assistant offers voice commands, voice searching, and voice-activated device control, letting you complete a number of tasks after you've said the "OK Google" or "Hey Google" wake words. It is designed to give you conversational interactions.

Google Assistant will:

- Control your devices and your smart home
- Access information from your calendars and other personal information
- Find information online, from restaurant bookings to directions, weather and news
- Control your music
- Play content on your Chromecast or other compatible devices
- Run timers and reminders
- Make appointments and send messages
- Open apps on your phone
- Read your notifications to you
- Real-time spoken translations
- Play games

### **Smart Home with Google Assistant & Alexa using NodeMCU ESP8266**

To make Smart Home with Google Assistant and Alexa using NodeMCU ESP8266 and Sinric Pro.

With this NodeMCU ESP8266 project, you can control **3 home appliances** with Google Assistant, Alexa, and **manual switches**.

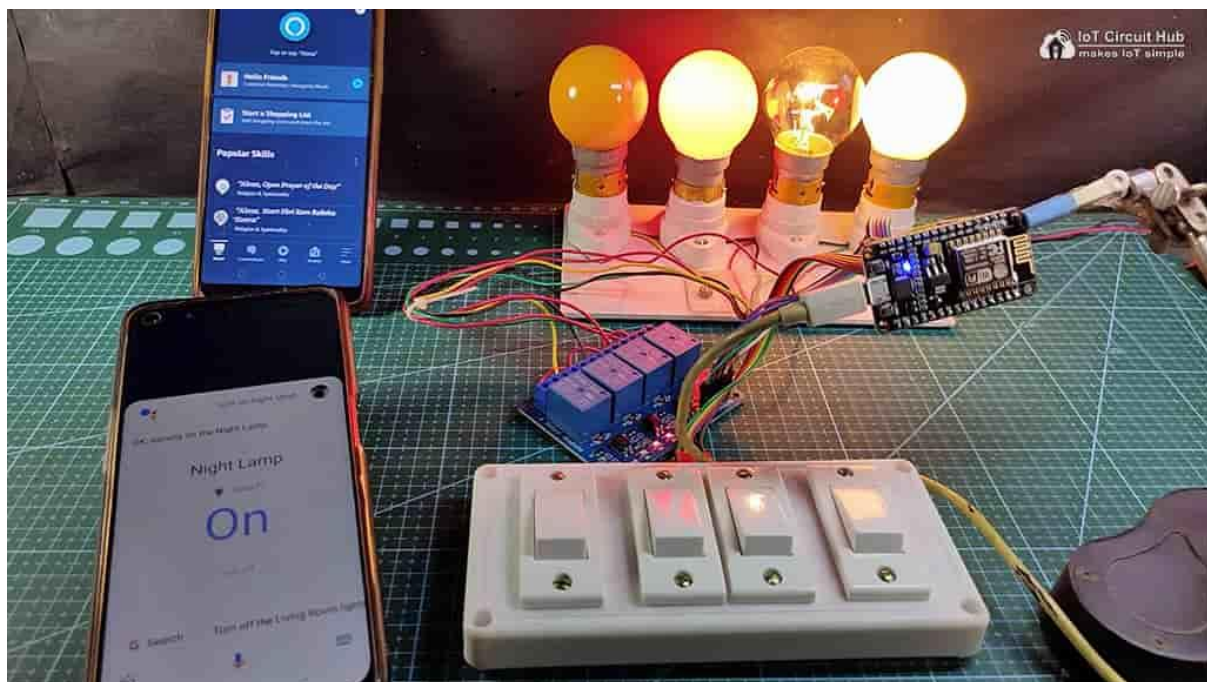
You can also control the relays from **Google Home** and **Amazon Alexa App** from anywhere in the world.

You can control the relay module from the manual switches if there is no internet available.

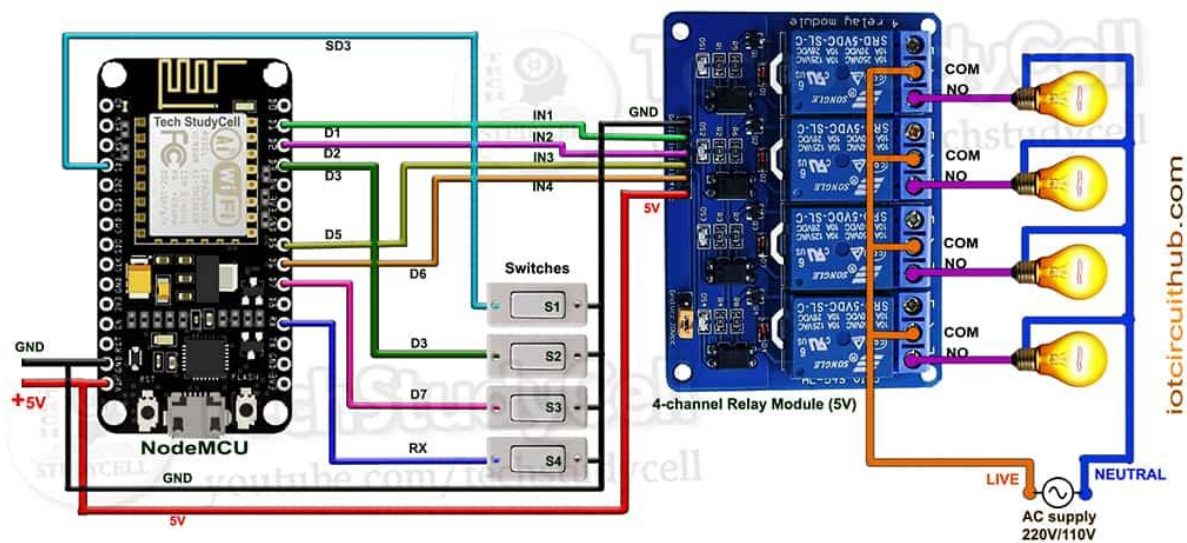
And you **don't** need any **Google Nest** or **Amazon Echo Dot** devices for this voice control home automation project.



With this home automation project, you can control & monitor the **real-time feedback** of the relays in the **Google Home** and **Alexa App** from anywhere in the world. If the WiFi is available, the **NodeMCU** will automatically connect with the Wi-Fi.



## NodeMCU control Relay Module



The circuit is very simple, used **D1, D2, D5 & D6** GPIO to control the 4-channel relay module.

And the GPIO **SD3, D3, D7 & RX** are connected with manual switches to control the relay module manually.

used the **INPUT\_PULLUP** function in Arduino IDE instead of using the pull-up resistors with each switch.

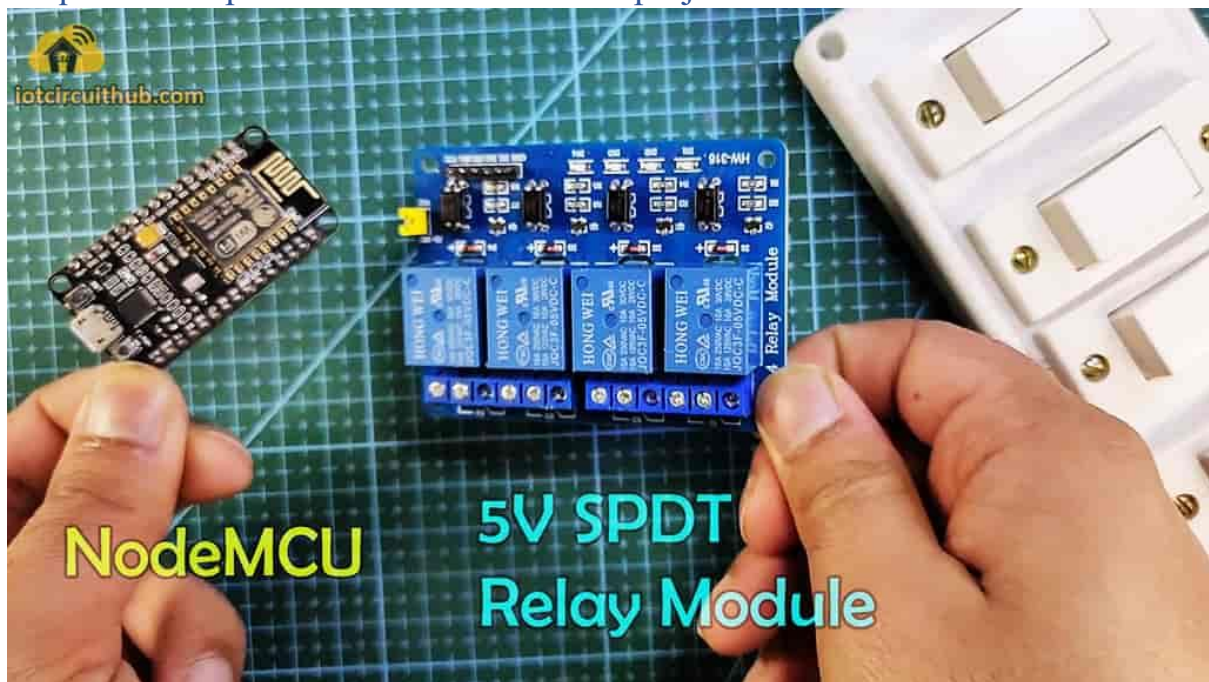
As per the source code, when the control pins of the relay module receive the **LOW** signal the respective relay will **turn on** and the relay will **turn off** for the **HIGH** signal in the control pin.

used a 5V 2Amp mobile charger to supply the circuit.

**\*\*The Boot will fail if SD3 and D3 are grounded during the Boot process. So manual switch-S1 and switch-S2 must be OFF during NodeMCU Boot.**

Now, if you want to use **pushbuttons** then just connect the pushbuttons across the GPIO pins and GND pin instead of switches.

## Required Components for the NodeMCU projects



1. NodeMCU
2. 4-channel 5V SPDT Relay Module
3. Manual Switches or Pushbuttons
4. Amazon Echo Dot (**optional**)
5. Google Nest Mini (**optional**)