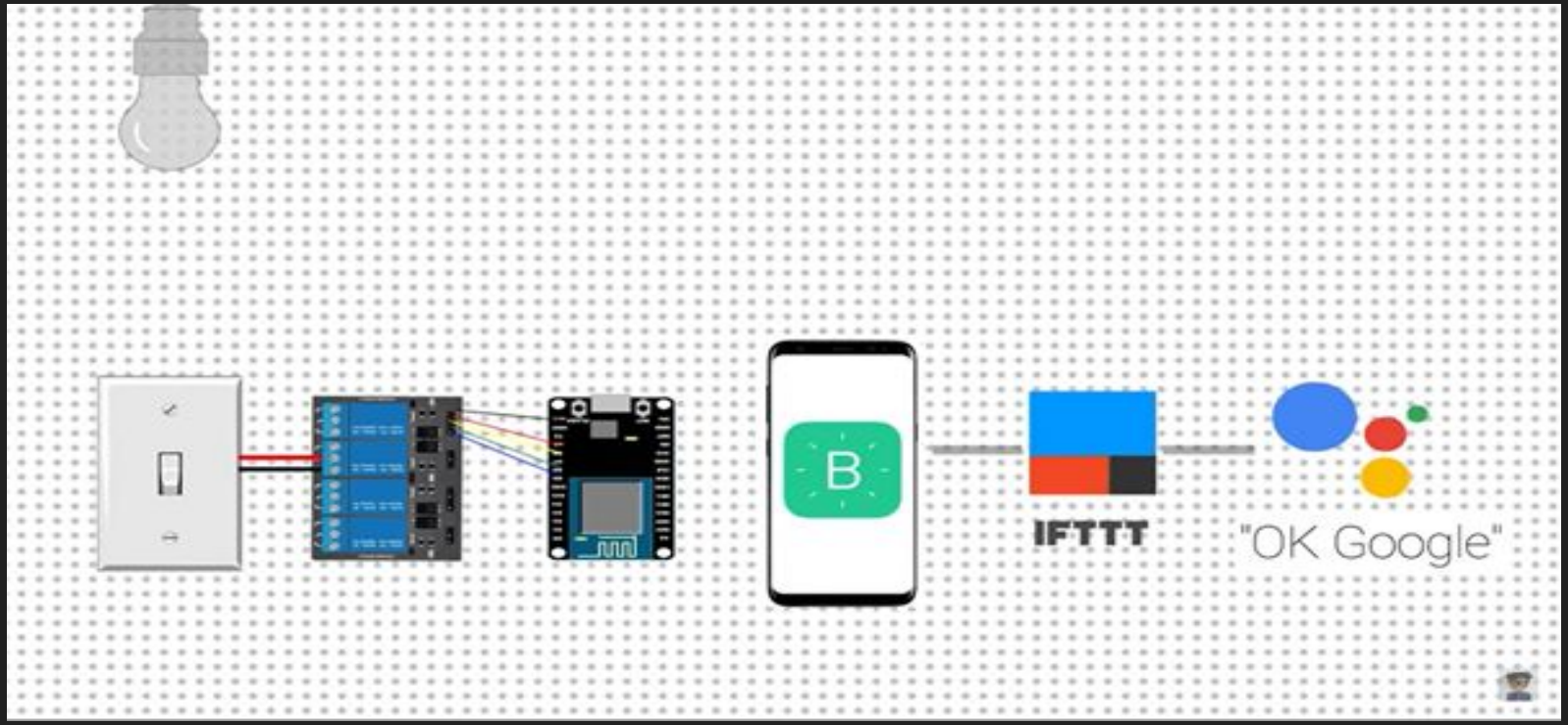
# IOT based Home Automation



# Introduction

→ Home automation evolution starts with some basic ideas.It minimizes the human efforts and it can be deployed in a lot of fields like military, surveillance application is developed in the modern world.

→ Now a day's Home automation is developed by using Wireless technology. Wireless technology in Home automation starts with WI-FI.

→We can operate Fan, Ac, Light, Pump, anything we want to do, by using

Google Assistant.

# Required elements

**Hardware Interfaces**

→ NodeMCU (ESP8266)

→ RELAY BOARD

→ Arduino IDE

**Software Interfaces**

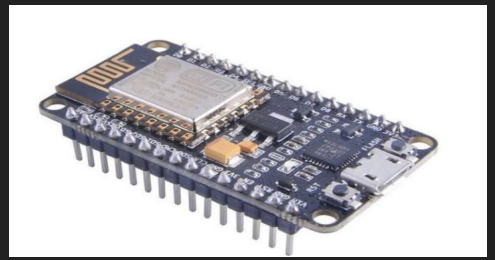
→ Google Assistant application

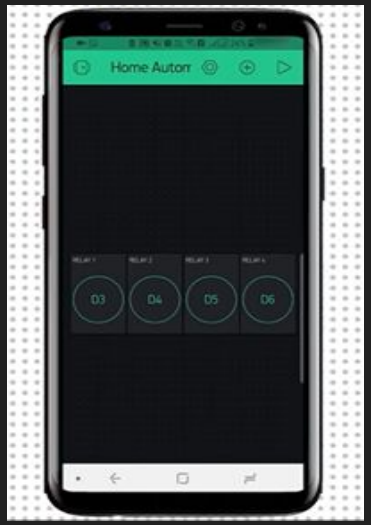
→ IFTTT Service.

→ BLYNK APPLICATION

# NodeMCU (ESP8266)

The NodeMCU (Node MicroController Unit) is an open source software and hardware development environment that is built around a very inexpensive System-on-a-Chip (SoC) called the ESP8266.

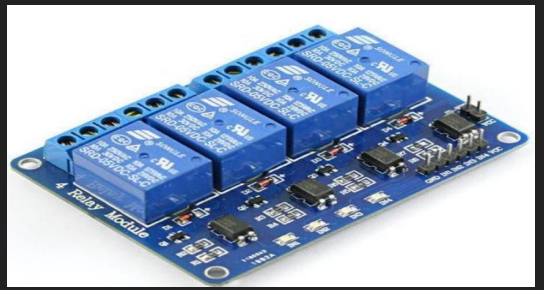





BLYNK APPLICATION

## RELAY BOARD

A relay is an electromagnetic switch. It is activated when a small current of some microampere is applied to it.



# STEPS

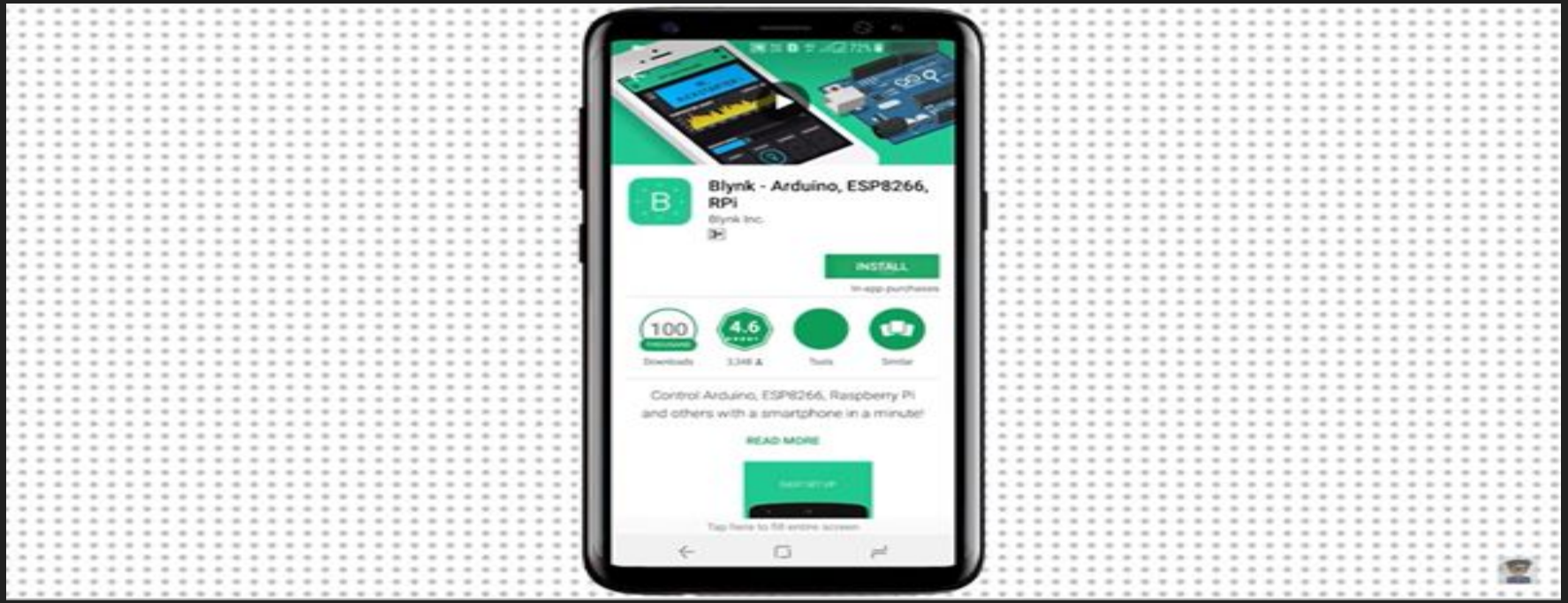
STEP 1 → Download And Setup The Blynk App

STEP 2 → Setting up Arduino IDE and Blynk Libraries

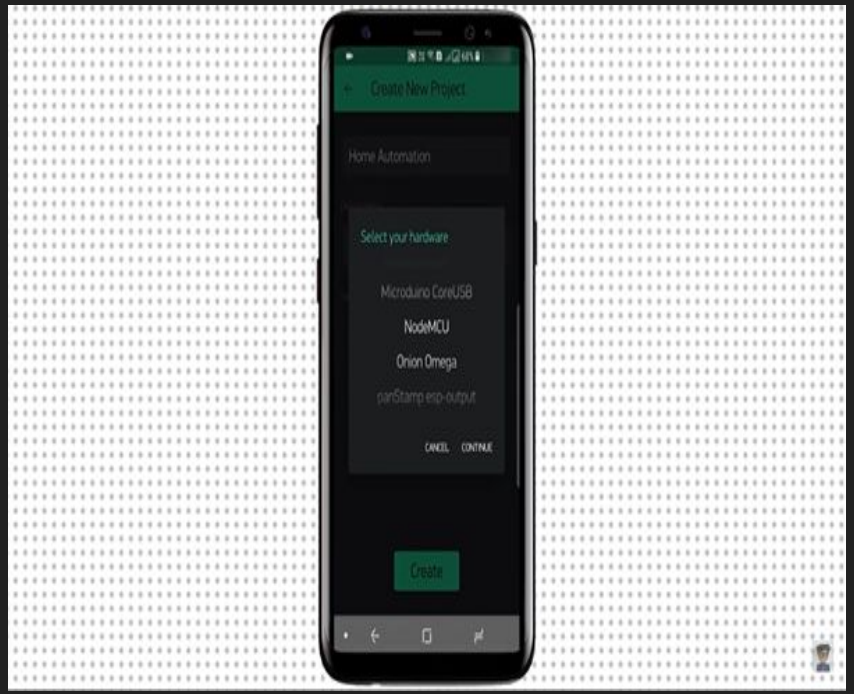
STEP 3 → Hardware Assembly

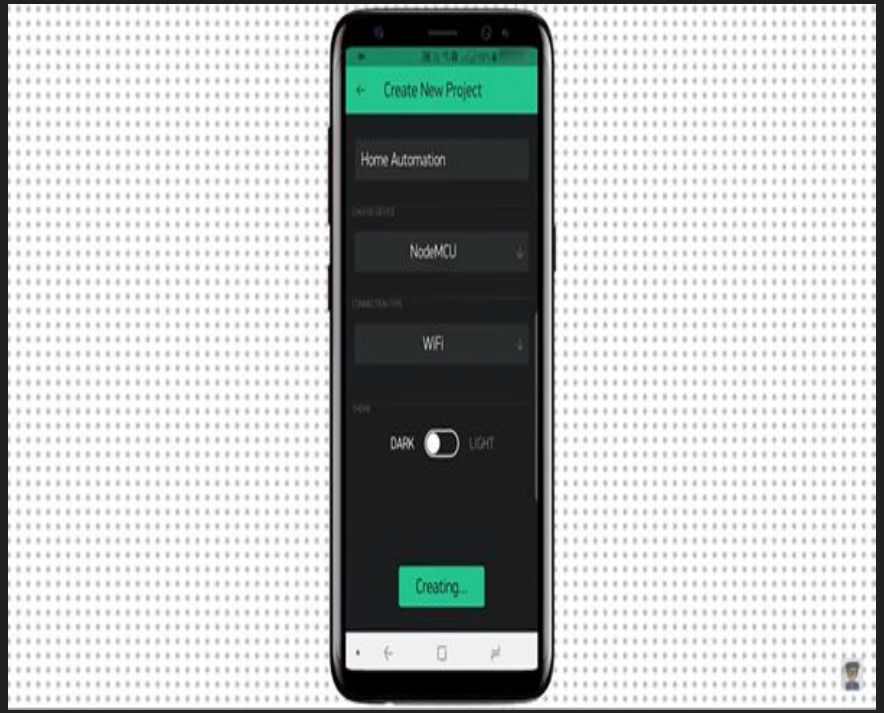
STEP 4 → Configure IFTTT

# STEP 1: Download And Setup The Blynk App

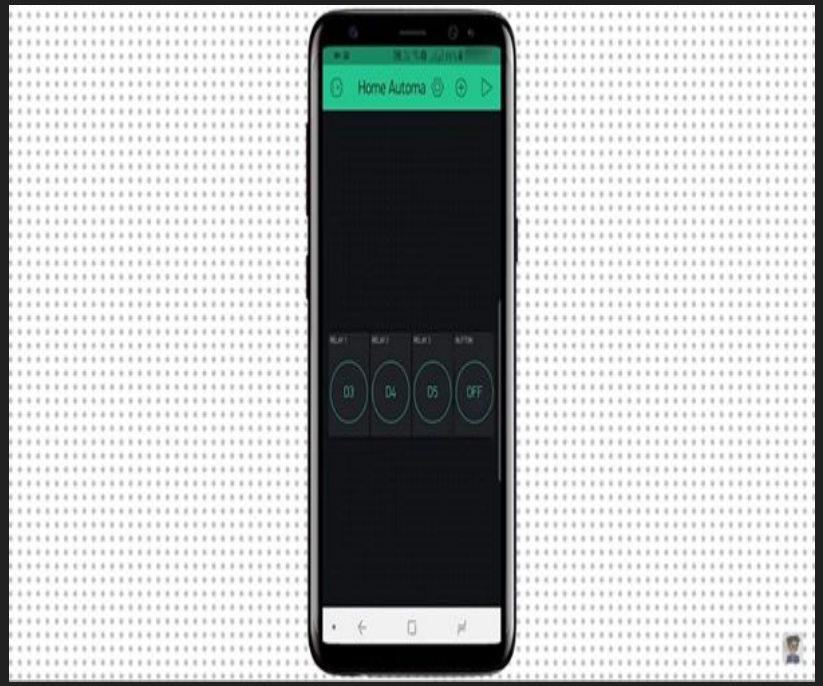


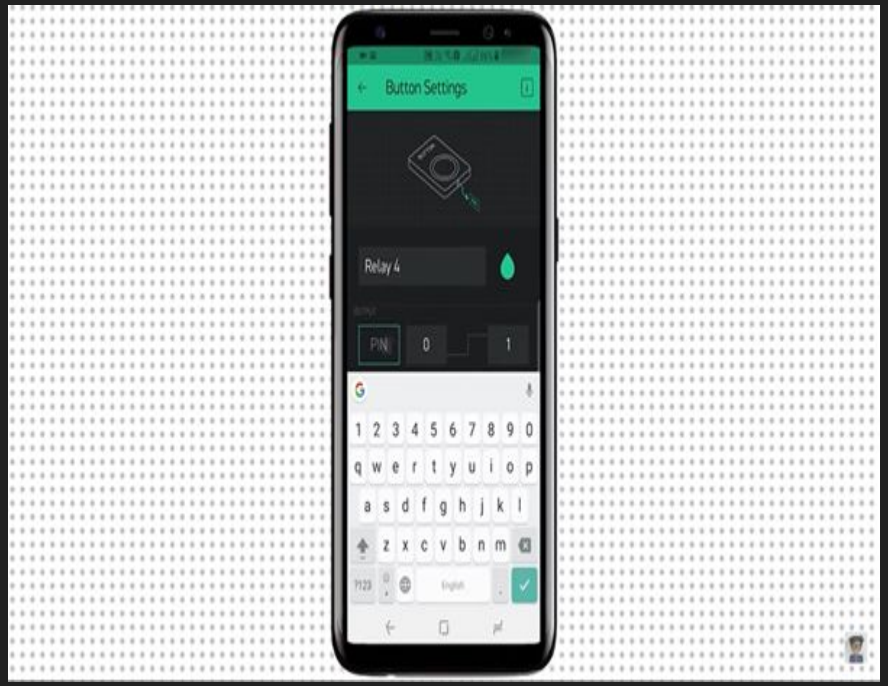
# → Congfigure Blynk



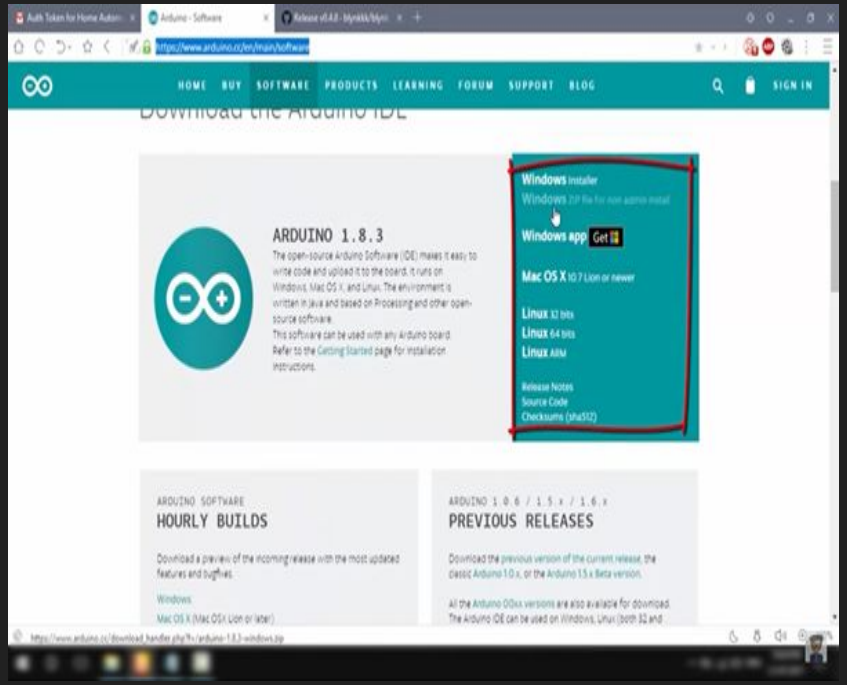



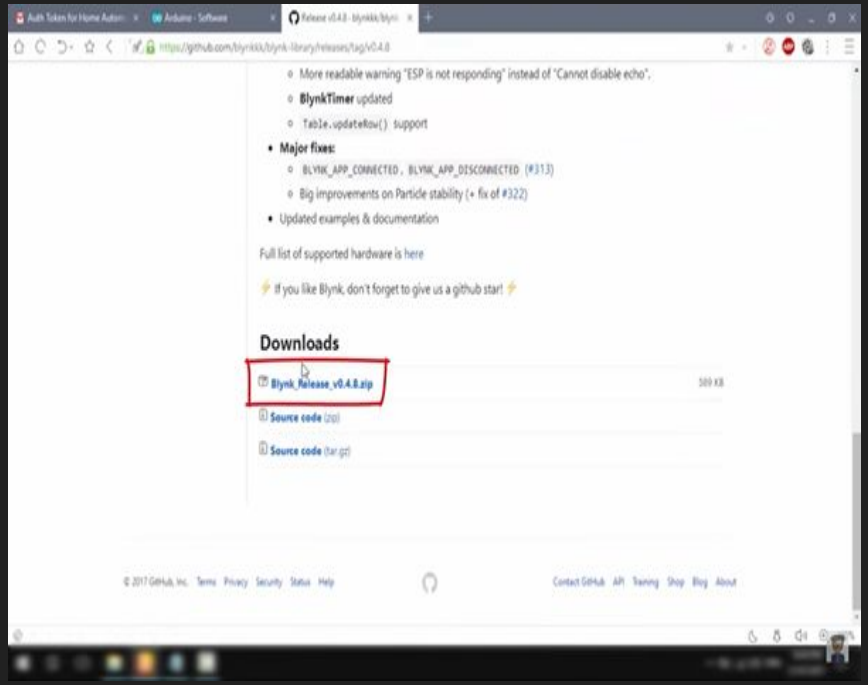
# → Buttons and their names with pin number



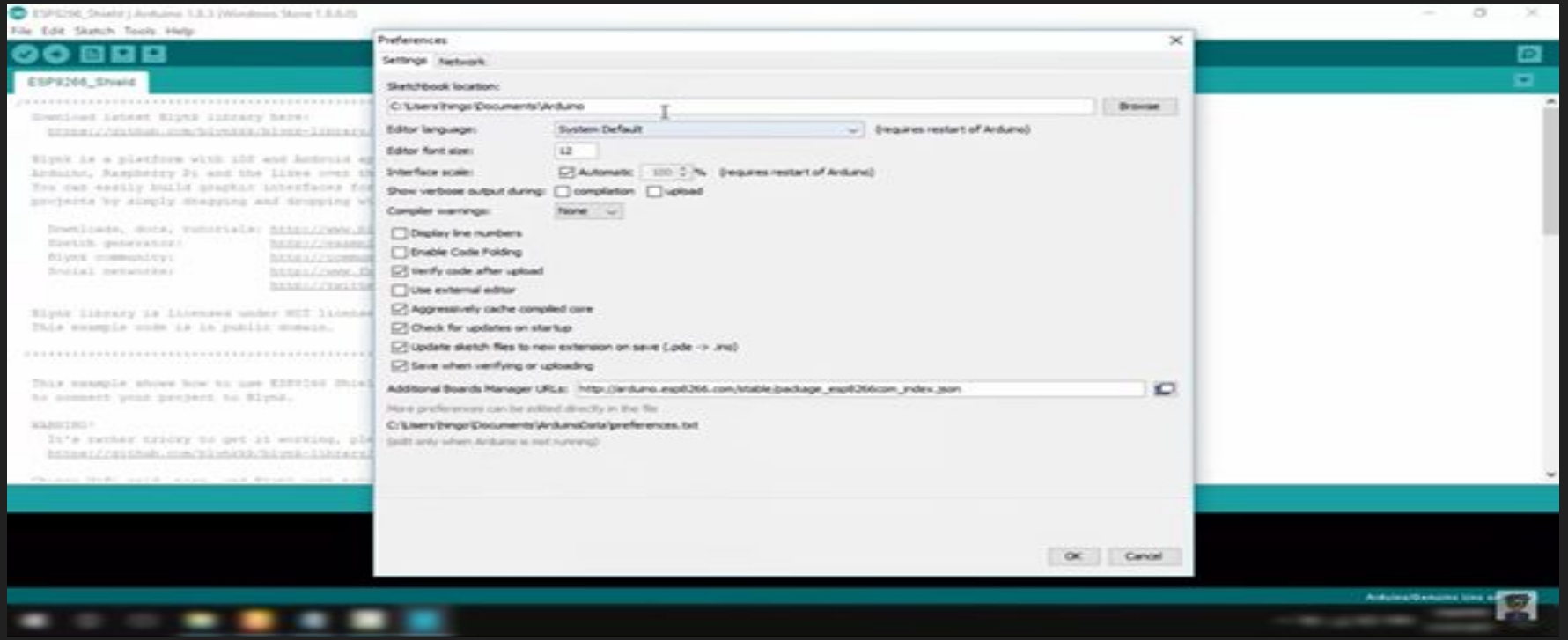



# STEP 2:- Setting up Arudino IDE and Blynk Libraries

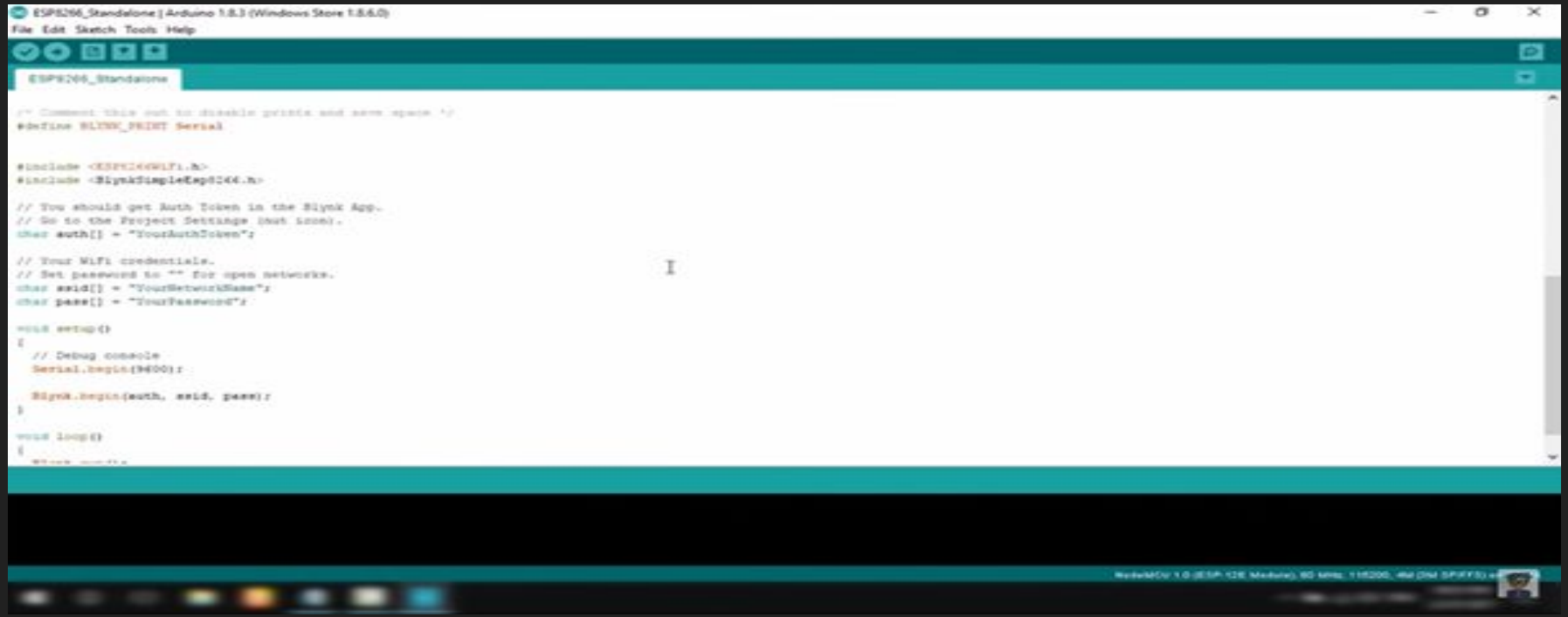


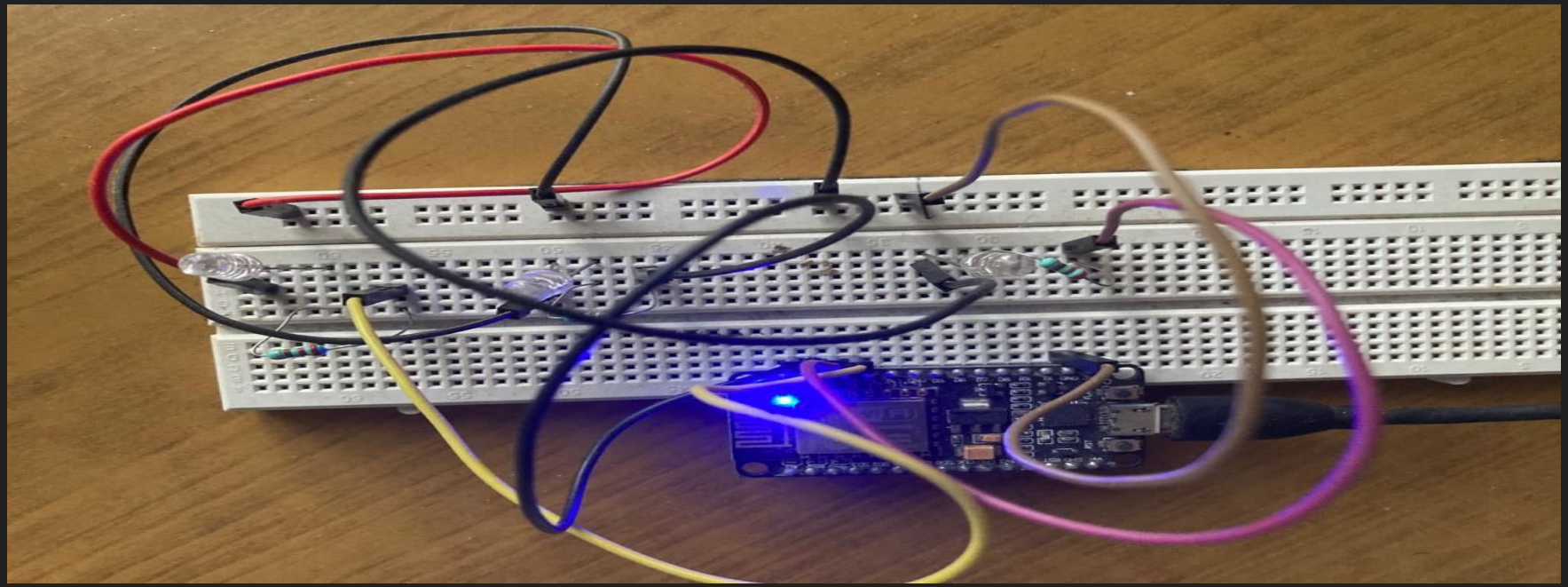
→ Copy Libraries and tools to this path.



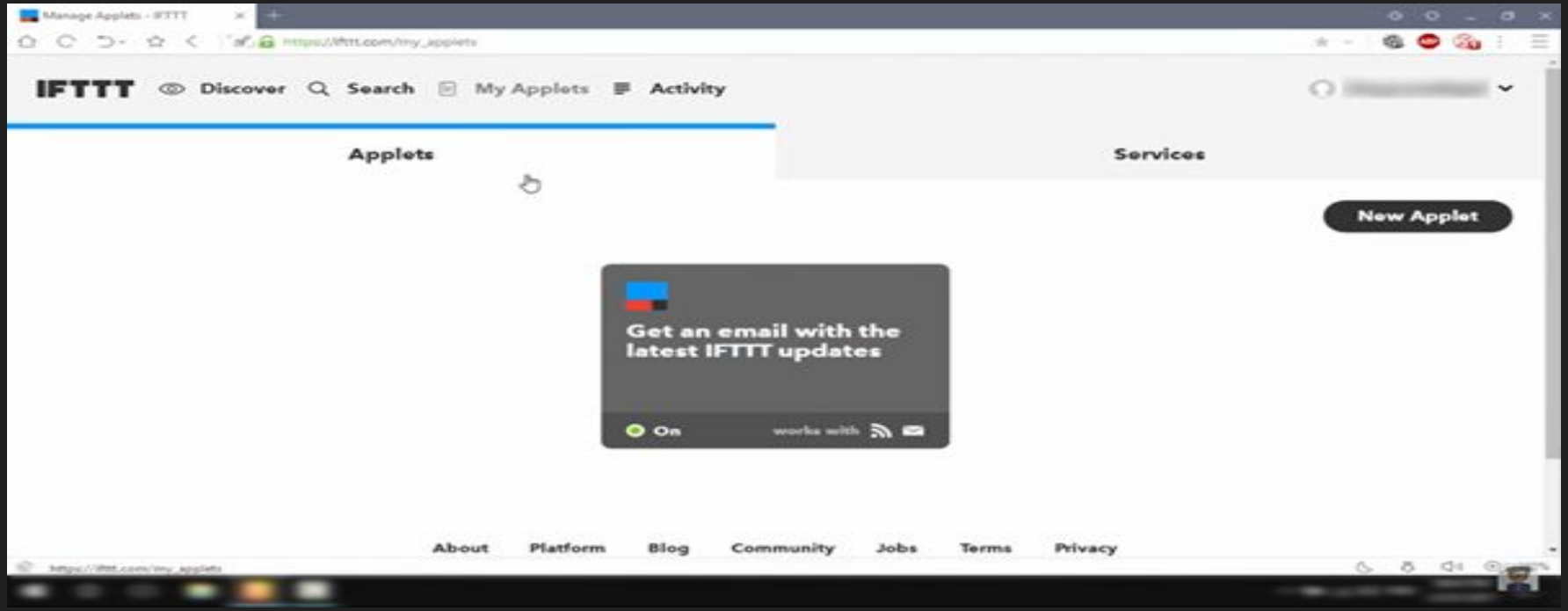
# → Code of node mcu



# STEP 3 → Hardware Assembly

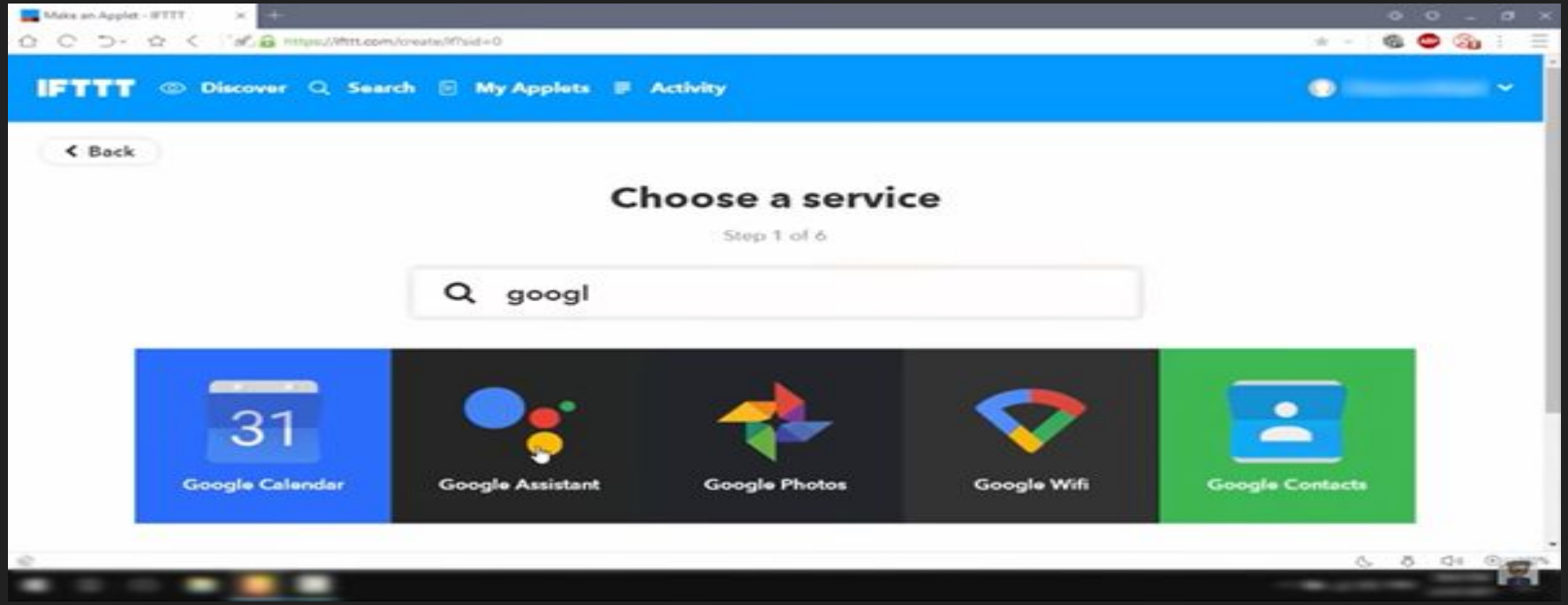


# STEP 4:- Configure IFTTT

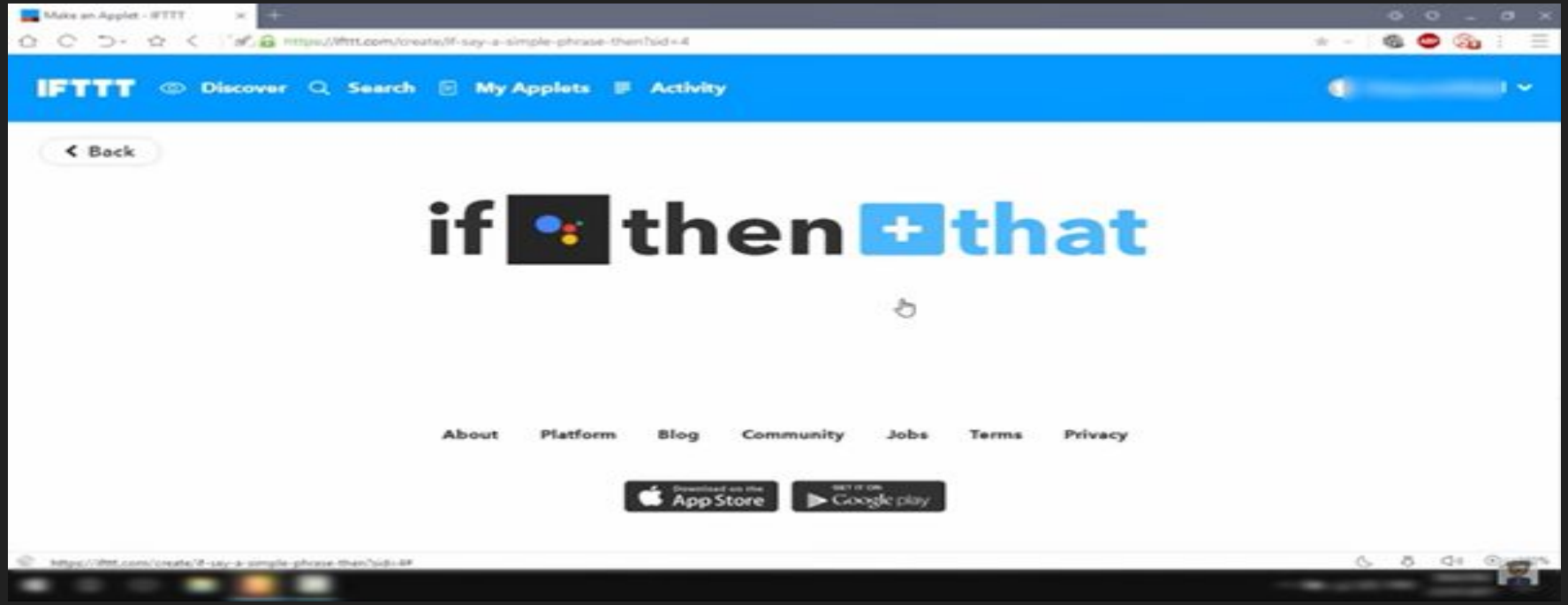


→ How to operate “this”?

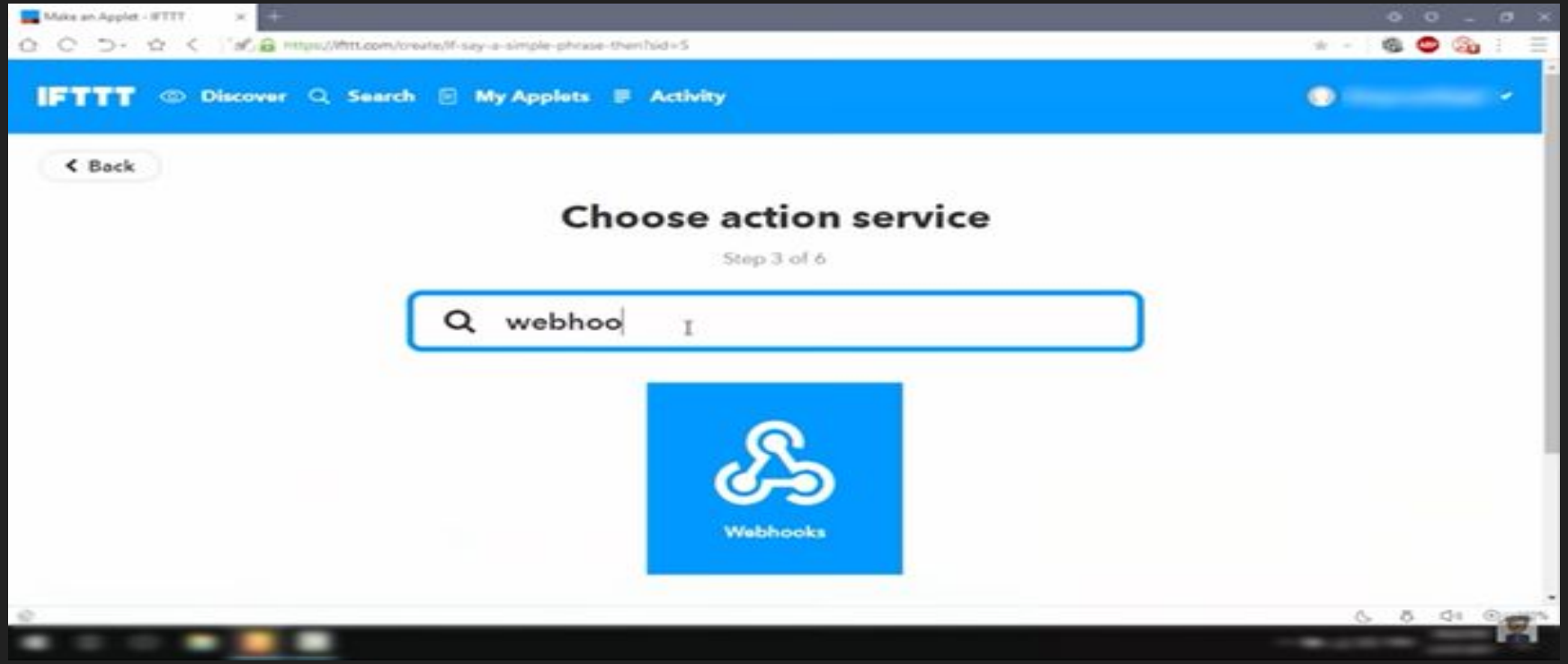
# → Choose Google Assistant



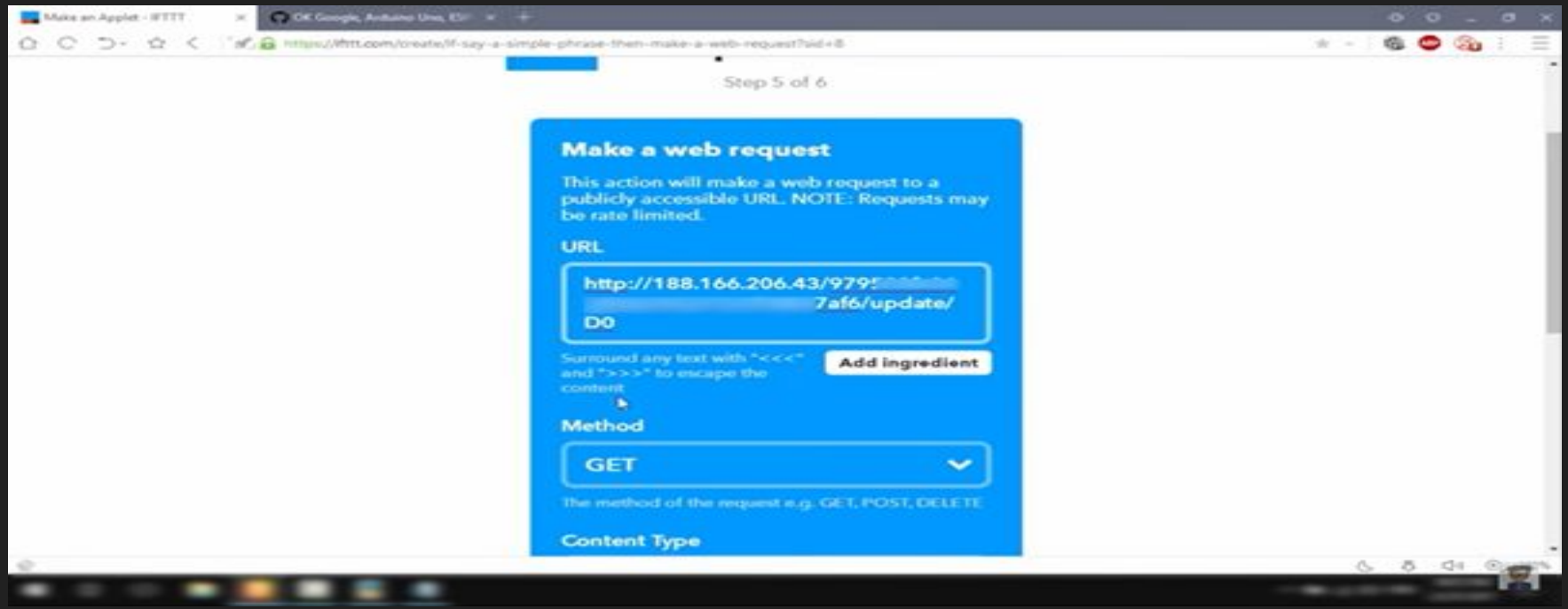
→ How to operate “that”



# Choose Webhooks

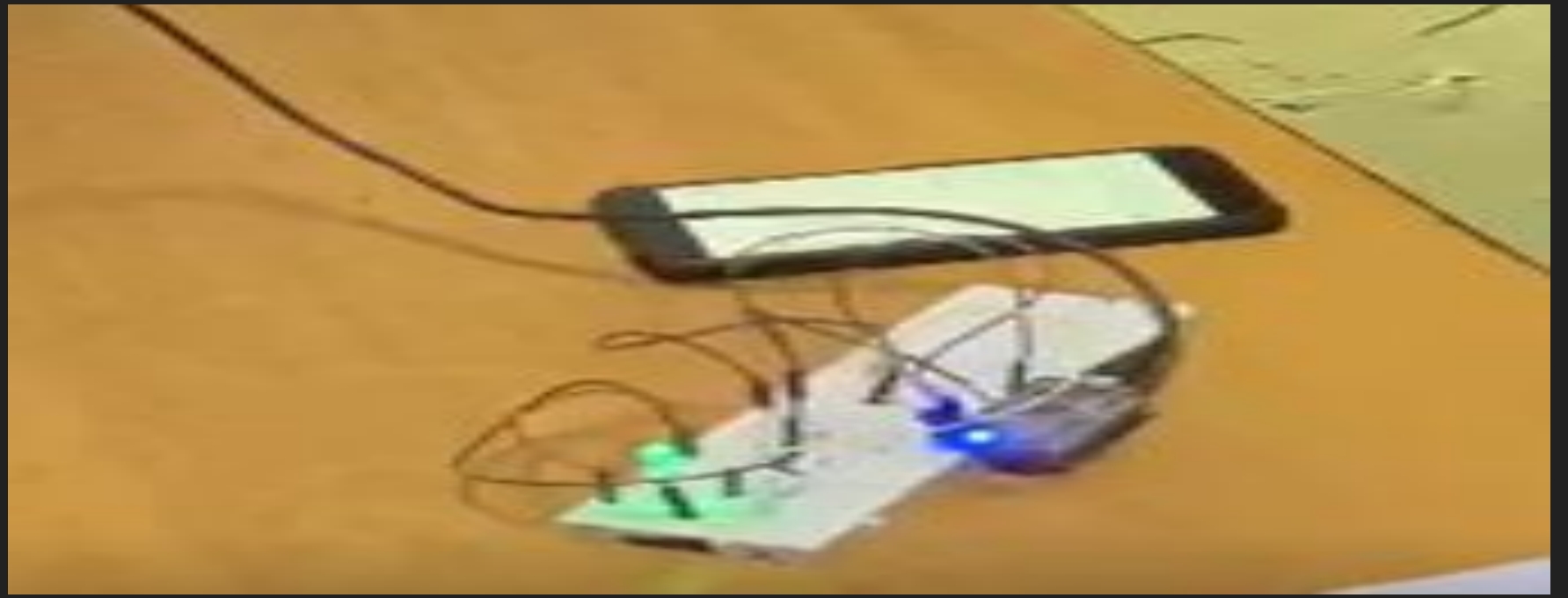


# Auth Token and Pin Number



# Google Assistant

# RESULT



# FUTURE SCOPE

Using this home automation system as a reference, the system can be expanded to include various other options which could include home security feature like capturing the photo of a person moving around the house and storing it onto the cloud. Moreover, if we want to operate a particular device at some place then this will be helpful to do that.

# References


[1] IFTTT: https://ifttt.com/discover

[2] Blynk : https://www.blynk.cc/ https://docs.blynk.cc/

[3] NodeMCU: https://nodemcu.readthedocs.io/en/master
https://iotbytes.wordpress.com/nodemcupinout/

[4] Google Assistant: https://assistant.google.com/intl/en_in/
https://www.pocketlint.com/Apps/Appsnews/Googleapp news

[5] https://www.youtube.com/watch?v=5SvRolROPxA

[6] Wikipedia: https://www.wikipedia.org/

# THANK YOU..!!