

# Garden Light Control



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# Product Introduction



- Problem identified:-

Gardener duty is to take care of our garden and take all the measures that garden is up-to-date but he is a human he may forget to do this or else he is on holiday so due to this unnecessary energy is wasted so to avoid this problem we think to buy a robot but this is not economical possible for all. So we have **“Ideal solution for your dark evenings....”** The product named as **‘Garden light control’**.

- Problem solution:-

We designed IoT based system which automatically examine turn ON/OFF garden lights by timings for example suppose at evening 6pm system triggers and send a signal to controller. Then Control identifies the signal and according to input signal turn ON's all garden lights. Same for the morning at 6 am control turns off the light. This product also uses google assistance by receiving command from user it will operate lights

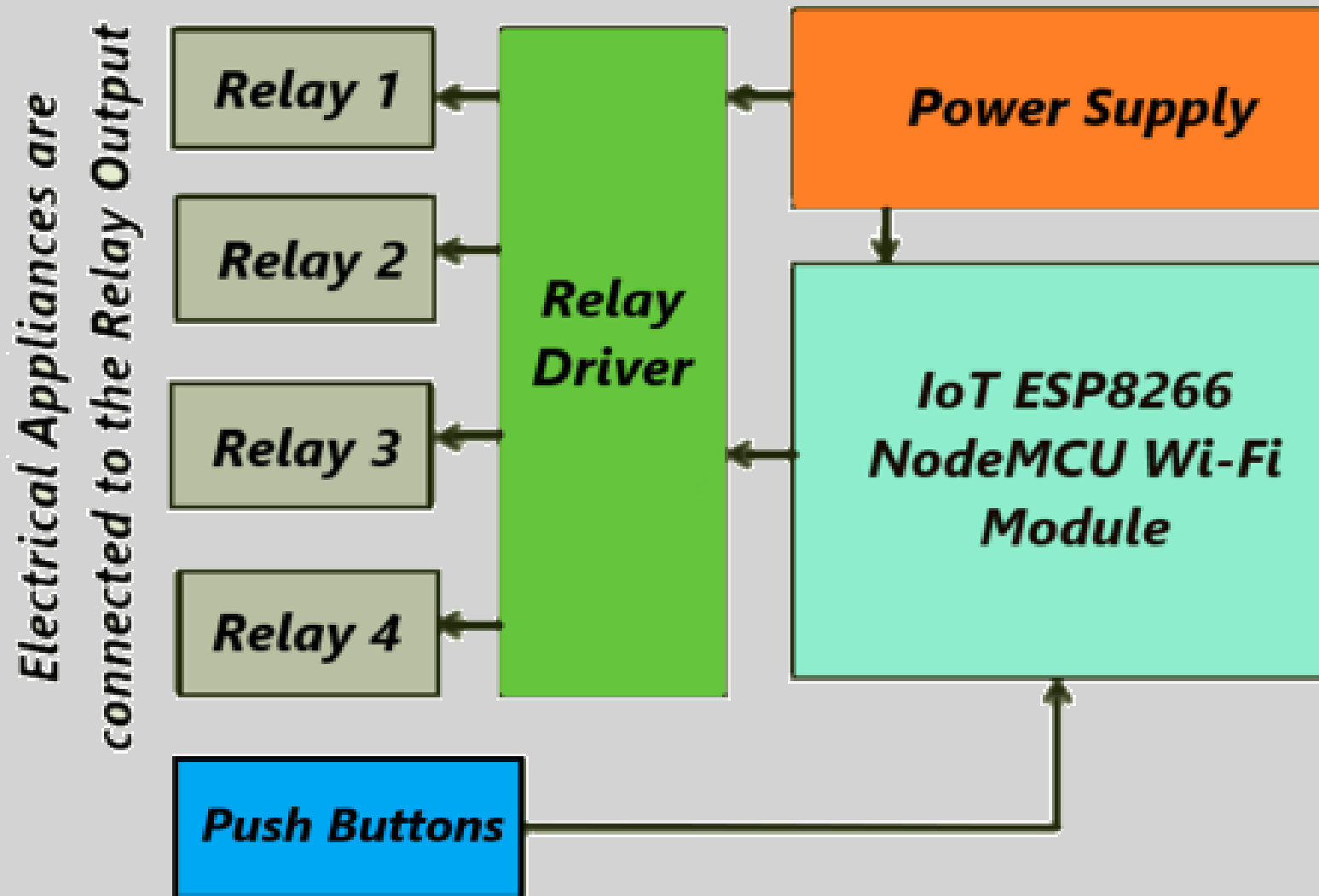
# Product Features



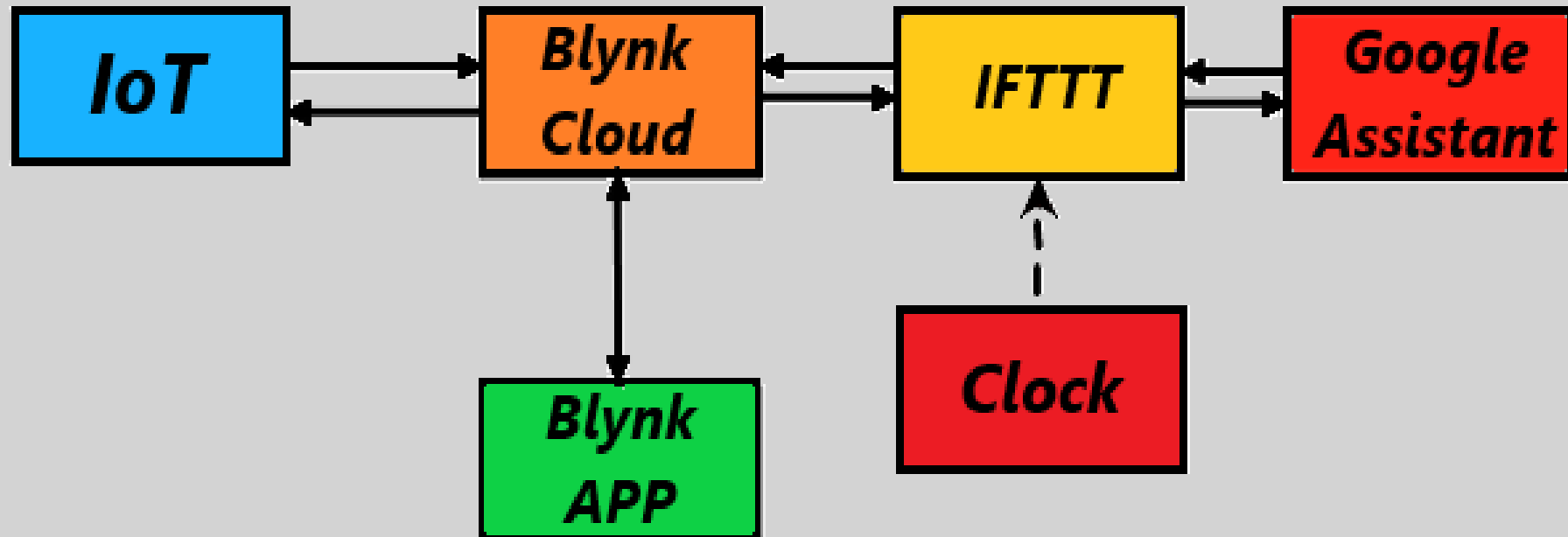
- Secure
- Internet connectivity
- Reduced installation cost
- Scalable and Expandable
- Wireless and uses less power
- Automated as well as Manual
- More than 32 Electrical applications can be done
- It can also monitor watering system using different Commands by user
- Requires 5v DC



# Product hardware block diagram

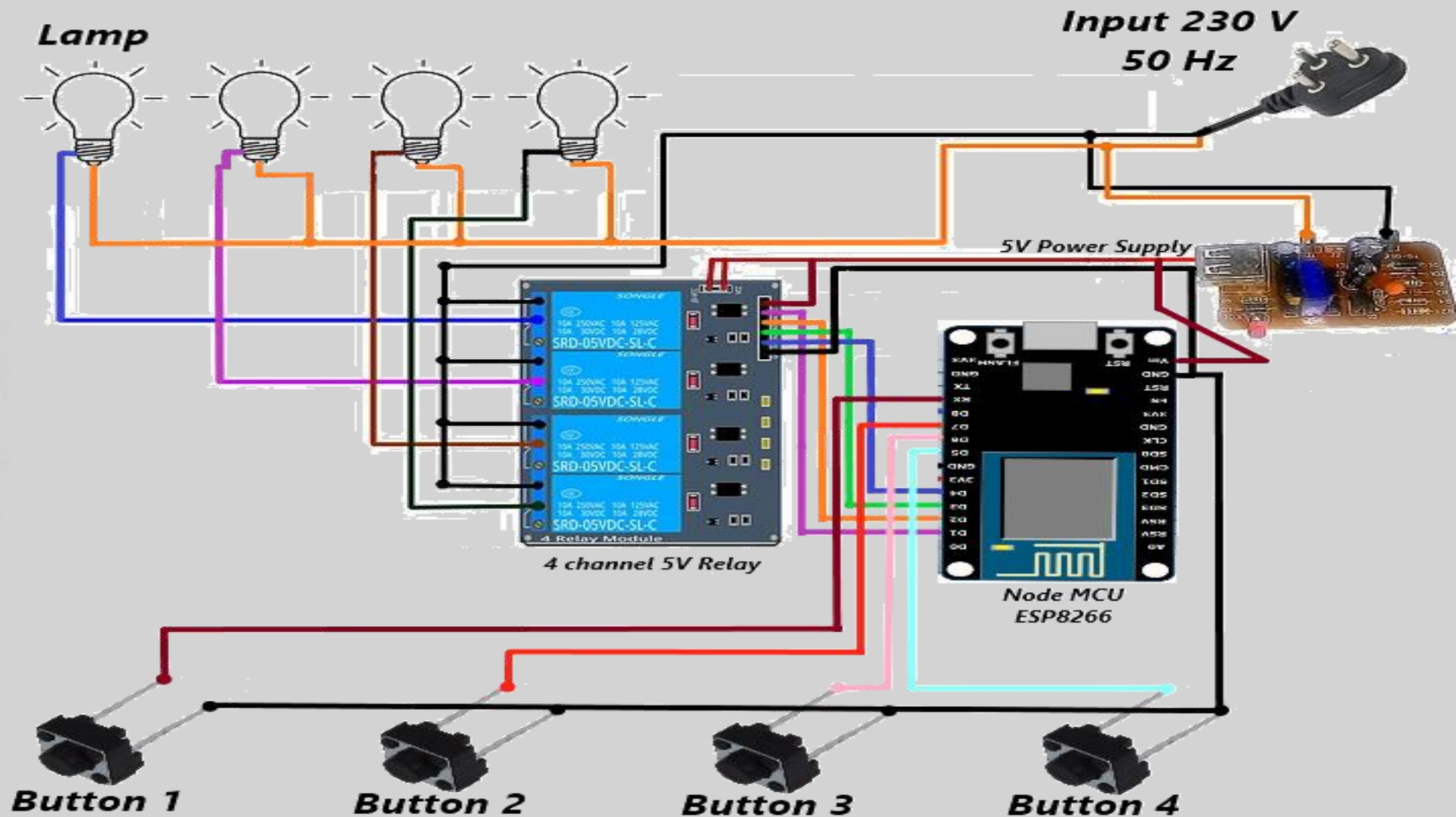


# Block diagram





# Circuit Diagram

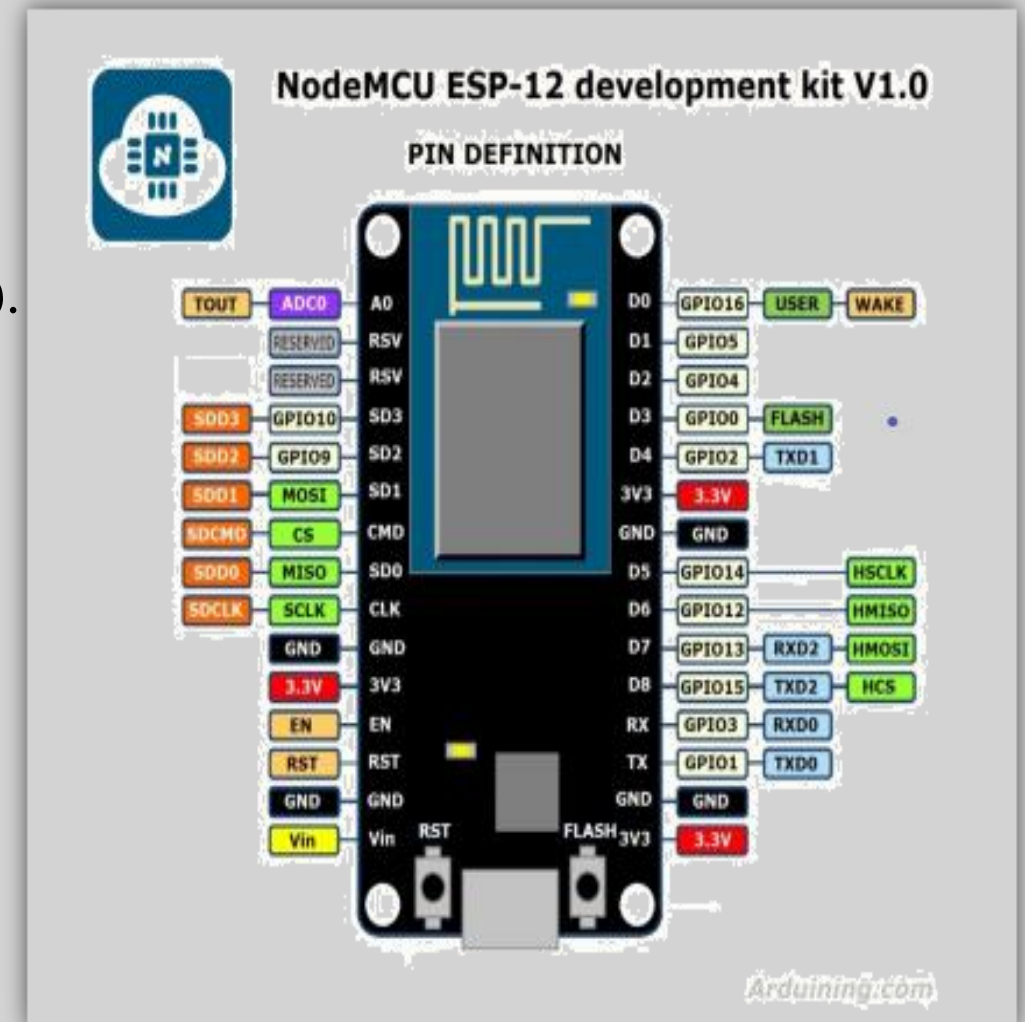


# Methodology



## • NODE MSU

1. Voltage: 3.3V.
2. Wi-Fi Direct (P2P), soft-AP.
3. Current consumption: 10uA~170mA.
4. Flash memory attachable: 16MB max (512K normal).
5. Integrated TCP/IP protocol stack.
6. Processor: Tensilica L106 32-bit.
7. Processor speed: 80~160MHz.
8. RAM: 32K + 80K.
9. GPIOs: 17 (multiplexed with other functions).
10. Analog to Digital: 1 input with 1024 step resolution.
11. +19.5dBm output power in 802.11b mode
12. 802.11 support: b/g/n.
13. Maximum concurrent TCP connections: 5.





# BLYNK APP



1. Similar API & UI for all supported hardware & devices
2. Connection to the cloud using:
3. Wi-Fi
4. Bluetooth and BLE
5. Ethernet
6. USB (Serial)
7. GSM Set of easy-to-use Widgets
8. Direct pin manipulation with no code writing
9. Easy to integrate and add new functionality using virtual pins
10. History data monitoring via Super Chart widget
11. Device-to-Device communication using Bridge Widget
12. Sending emails, tweets, push notifications, etc.

# IFTTT



If every day at



Then Make a web request



URL

`http://188.166.206.43  
/50fddb79b08c41bd8303f0ccc2fe4  
ab2/update/D5`

Complete action fields



Make a web request

This action will make a web request to a publicly accessible URL. NOTE: Requests may be rate limited.

## IFTTT

At 06.00 PM  
Turn on Garden Lights

by rushigunjai2016

Connected

1

At 06.00 AM  
Turn off Garden Lights

by rushigunjai2016

Connected

1

IFTTT for Android



## IFTTT

Every thing works  
better together



0:01

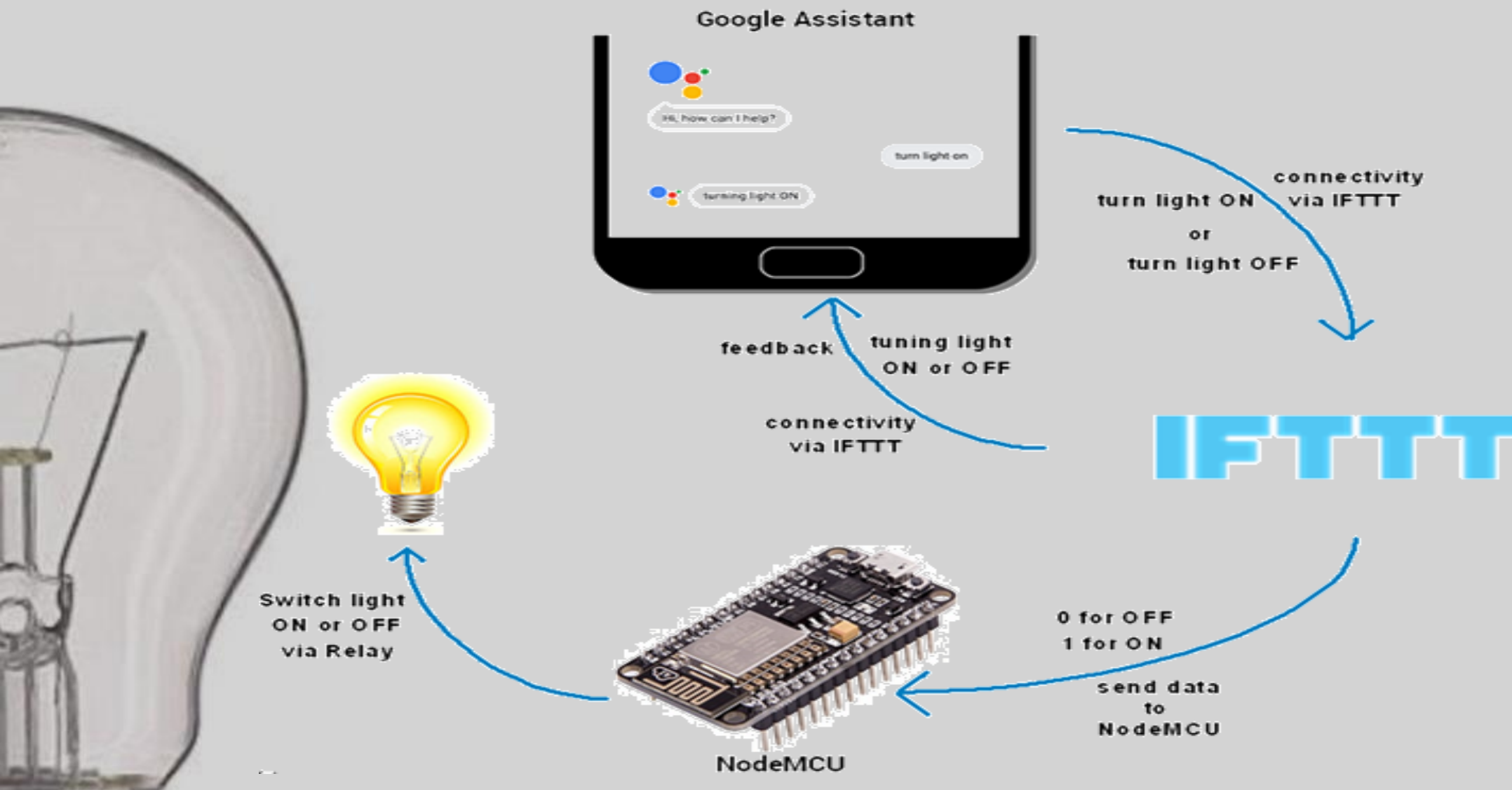


0:25

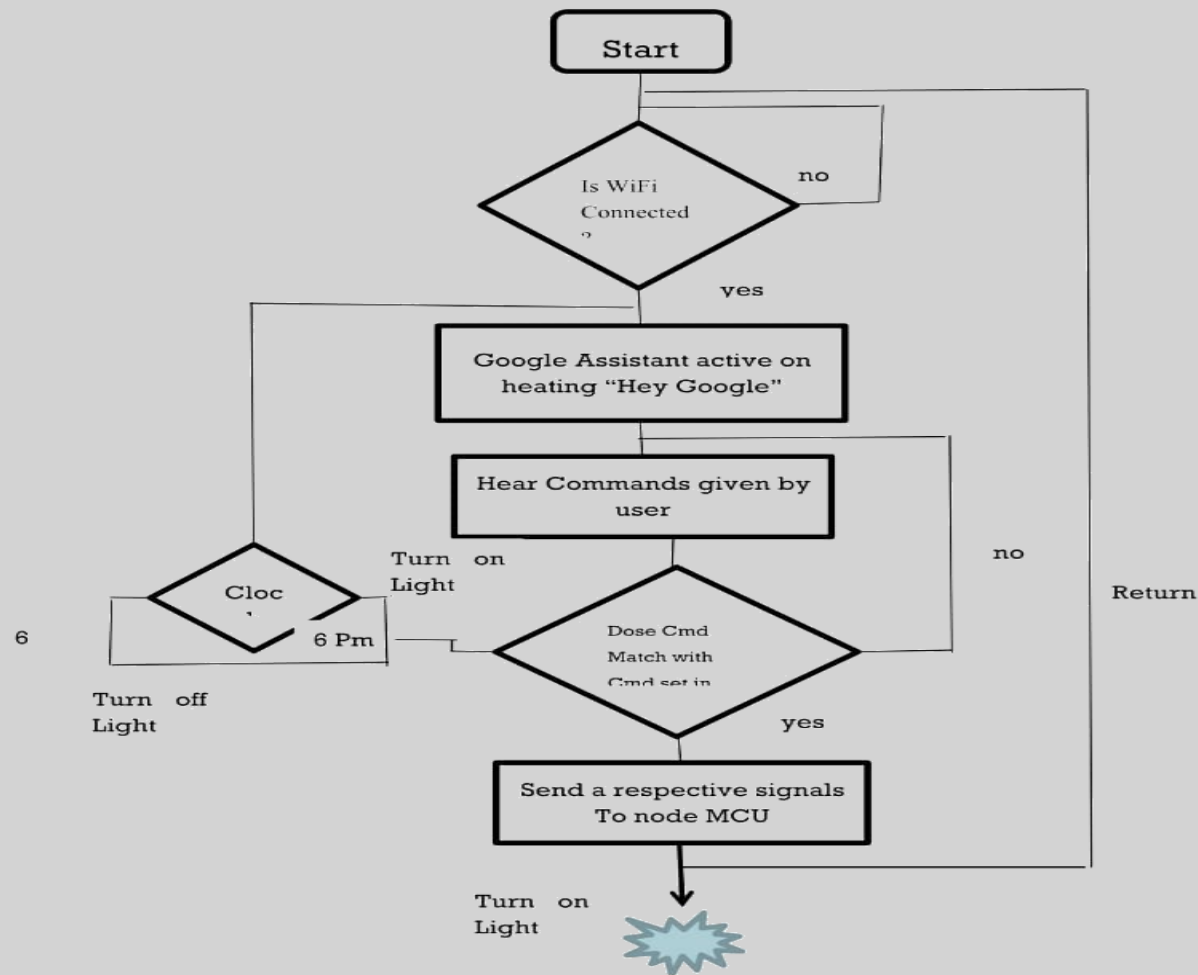
YouTube



# Our Innovation



# Flowchart



**We used to be so busy  
busy as one can be**

**Now it's all automatic  
oh my life is so static!!!!**

**Now all we do is sit around  
waiting for the call**

**But now there is nothing,  
nothing to do for me**

**We used to have a Purpose  
working like a fire ball**

**'JustInnovate' want to give you all  
static life just like us.....because  
you deserve all the light in the  
world**



# Conclusion



- Uses friendly system.
- This system is highly reliable and efficient for the aged gardener also paralyzed person on the wheel chair who cannot reach the switch for the switching of on /off and controlling the lights and are dependent.
- Turning ON and OFF of garden lights every evening and every morning This application can also be done by giving Voice Commands to Google Assistant simply using smartphone.
- In short purposed system accurately controls the switching of lights in garden every day

# Advantages and Application

## • Advantages:-

1. Worldwide
2. No need of extra efforts for light control
3. No need of Gardner to stay more than his working hours at evening
4. Low cost

## • Applications:-

1. We can use this system anywhere there is Lights



