



**Mini Project Report**  
**On**

**“Mini Project Title”**

**Submitted by**

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## **“ Mini Project Title”**

to my satisfaction and submitted the same during academic year 2019-20 Trimester VII as part of Embedded and Internet of Things Laboratory subject.

**Prof. M. A. Bhalekar**  
**(Mini Project Guide)**

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**Date:** \_\_\_\_\_

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## INTRODUCTION

Today, home automation using Internet of things (IoT) is one of the major domains which is attracting attention from large tech companies.

We all want to own a smart home, but sometimes language becomes a barrier in setting up IOT home automation system. Most of the existing home automation systems support only a few languages, generally English.

## PROBLEM STATEMENT

# **Multi-Language Voice Control IOT Home Automation Using Google Assistant and Raspberry Pi**

## HARDWARE AND SOFTWARE REQUIREMENTS

Raspberry pi	Relay Board
GPIO 13	Relay IN 1
GPIO 15	Relay IN 2
5V	Relay 5V

GND

GND

### **Testing :**

Power the Raspberry Pi with 5V DC. Then connect Raspberry Pi and your phone to your Wi-Fi network or you can also use phone HOTSPOT. Then say “hey google” followed by the voice command that we have set in our preferred language. For example, say “hey google light on kar do”

And it will turn on the lights. You can also control lights with the app we have just created. Open the app and press the icons in navigation to turn the lights on/off

### **Setting Google Assistant**

Now, we are going to prepare the google assistant for our voice command. First open the language settings of google assistant and select the language of your choice. Then open the google assistant settings and go to “Routines” option. You will get a plus floating button in the menu of Routines, click on that and then set the voice command that you want to create. For example, if you want to control lights, you can set the voice commands in your preferred language to turn on the lights. After this, set the action for that voice command in the given format.

## Connection Diagram

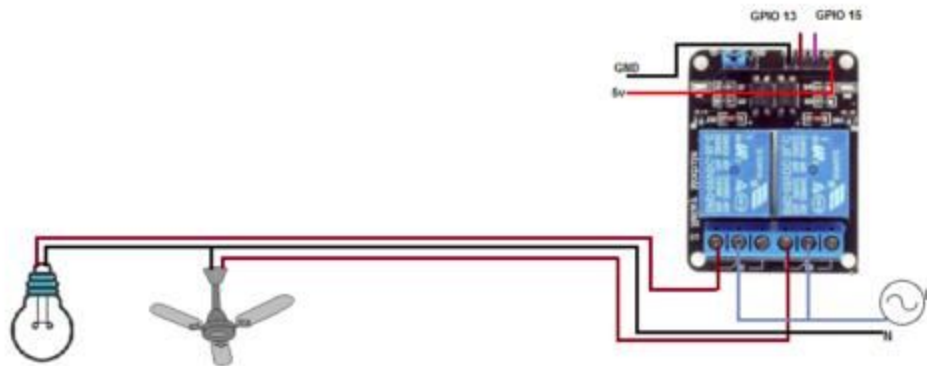


Fig 8. Connection

## REFERENCES:

1. [pinout.xyz](http://pinout.xyz)
2. [httpd.apache.org](http://httpd.apache.org)
3. [raspberrypi.org](http://raspberrypi.org)
4. <https://www.php.net/manual/en/features.commandline.webserver.php>

## CONCLUSION:

Thus we have successfully designed the home automation project using apache server and google assistant(multilingual).