# **Project**

# Controlling home appliances using voice recognition and an app

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| Name | Id | Signature |
| Jihan Alam | 16301199 |  |
| Sumsil Arafin Pranta | 17301174 |  |
| Abdullah Al Rasan | 16101309 |  |
| Fatin Ishraq Shapnil | 17101258 |  |

**Abstract:** In this project, we want to make a device that can control multiple home appliances like light, fan and other outlets using voice recognition and an app. Also, there will be multiple sensors that will help to monitor the appliances. For example, if it's day time the device will automatically switch off all the lights by default. But the client can switch on the light at any time by voice recognition or with the app. Besides, during night time when we weak up to go to washroom the device will sense our motion and automatically turn on the washroom light so that we don’t need to turn on the light by any voice or app or the switch. If anything goes wrong, we can just switch on the light in the old way by turning on the switch. One can say if we have to use the old switches then what is the purpose of doing this project? To refute them I want to say that it's only an added feather that can be installed in any house to make life easier and smarter. Also, it can save energy by intelligent control. Secondly, there will be door sensors that will show on the app whether the door is open or close. This will add up extra security to our system to monitor the house. Sometimes we leave our house and forget to close the door. The app will notify you that the front door is open. Then you can come back and lock the door and leave the house without any doubt in mind. In conclusion, all these add up security to your house and save energy to make life easy. We will be using raspberry pi to make the device.

**Project no. 1:** Home automation system is a technological based solution for homes to easy up our day to day life activities. Here, there are more stages than our home automation system which is more time consuming than our home automation. It will work only on the physical presence of the people. The one thing which this project offers is the door security system. The door security system scan the peoples face and alert the owner phone with the stranger's facial image which is the only difference which can be found in both of the projects.

**Project no. 2:** Here in the project is associated with a mobile device which mainly operates the service.it is also recognize voice like our project but it can't sense the physical motion which our device can do. It can operate a coffee machine but our project cannot operate it. It mainly needs a mobile to operate where our project doesn't need a mobile to operate.

**Project no. 3:** This project is mainly used for customized and commercial purpose and our project is mainly home-based personalized home automation system. Our and this project both ensure multiple answers. It makes the usage of household things more convenient. Our project provides lights, fan, doors along with TV and other electronic systems but this system doesn’t do so.

**Project no. 4:** Here the project is similar to our project. It turns on or off the light and other electronic equipment by commanding. It also offers cloud computing, authentication, and scalability which our project doesn't provide. Raspberry PI is used in our project and here automation voice gateway Pi Frame framework is used which is expensive where Raspberry PI is not that expensive.

**Project no. 5:** Here in this system there is only one difference which is our project includes the door in the automation. This project is quite similar to our project. In our project, we used Raspberry Pi here this project also used Raspberry Pi.

**Project no. 6:** This project mainly focused on having energy and cost. But our project offers low-cost low energy high-quality automation. Our project covers different types of the home appliance like- light, fan, the door which is very convenient for home automation but this project doesn’t cover all the home appliances.

**Project no. 7:** This project only offers 4 devices which can be controlled by mobile devices. But our project can be covered more than 4 devices and it can sense the presence of physical motions of peoples. Our project sense motion way was faster than this project. It's necessary to power up which our project doesn't require. Our project can be controlled by motion and voice but this project only can be controlled by voice.

**Project no. 8:** This project and our project has quite similarities which are it used Raspberry Pi. But this project used Raspberry Pi but our project used Raspberry pi by python platform which this project didn't use and our project is faster motion sensor than this project.

**Project no. 11:** This project's system is mainly a voice recognition system where our project system has a sensor on physical presence. It can sense when there are people inside the room or not. But this project doesn't offer this.

**Project no. 12:** Our project doesn't need monitoring to the systems on the hand this project talks about monitoring the machinery. It needs supervision where our project doesn't need this. It gives an additional layer where our project doesn't offer that.

**Project no. 13:** In our project, we used Raspberry Pi but here this project didn't mention any of this stuff. They are trying to reduce manpower and save energy where our project is low cost, easily operative.

**Project no. 14:** This project describes the project as a low cost and open source project which is our project also offers but our project targeted home appliances like-light, fan, and doors. Here this project targeted computers, tablets.

**Project no. 15:** This described project covers up to 18 devices which our home automation system doesn't cover. This project has a sensor using Bluetooth technology using home appliances. In our project we emphasis on light, fan, and door only.

**Project no. 16:** In this project, only voice application can work but in our project, it was a sensor which can sense the presence of the people inside the house.

**Project no. 17:** This research is focused on disable peoples but our project targets all the people. Through this project focuses on a particular sector of people. Our project is sensor based which can cover any types of physical movement.

**Project no. 18:** This project offers radio frequency identification where our project doesn't offer that. Again in this project, people can control their current credit, consumer unit and current loads but in our project, we offer home appliance like- light, fan, and door to controlled by the sensor.

**Project no. 19:** In our home automation we offer lower cost and faster response. But in this project offer, it doesn't need the power to work. In our project, it needs power control.

**Project no. 20:** This project cover curtain and gates but our project offers lights, fan, and doors. In our project, we used Raspberry Pi which is plugged into a computer monitor. This gives us the auto sensor of the individual person and works according to that.

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