

ANOVERVIEW OF VOICE OPERATED DOOR LOCK ALONG WITH OTHER CONSUMER ELECTRONIC DEVICES THROUGH ANDROID APP

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ABSTRACT

In many cases we find difficult to get into our house any we find we have missed somewhere out door key or forgot to carry our key while going somewhere. In many cases it happens that the door gets locked any key remains inside the house. This project is designed to solve this purpose. Main concept behind the project is to design a door latch which can be open by a password through anybody. Other consumer electronic applications are light, fan, geaser etc. The paper presents the idea of a door lock system with other consumer electronics which are controlled remotely from anywhere anytime. The main aim of the project is for door security purpose. For voice recognition, inbuilt speech recognition of android mobile is used. This voice is sent over internet to cloud server. Block base coding is used for app developing. The data is read by the microcontroller to control the door lock and any other devices. The door can be operated through any particular voice.

KEYWORDS: android mobile, wifi interface, door lock, Arduino.

INTRODUCTION

The idea is that I must easily lock and unlock my door without carrying a key or even without going near to it. From here we can design a system with a sensor like a knock sensor or a system with which we can unlock our door with a special code or a voice recognition system. Home automation is the easiest way of controlling all the electronic devices. it is very boring task to go to the switch board everytime to on and off the devices. The same problem arises in case of out door. Here I have designed a system which can work on anybody's voice and can open and close depending upon the commands. it is done through android application. It is very convenient, easy and hand'sfree way to enter your home, and most products are affordable and can be installed by do-it-yourselfers. Android mobile controlled door security locking system has its main application in security systems. It can be used in house, shop, offices, industry. We have provided a Relay and a DC motor to give a demo of door lock opening. User needs to enter password using an Application on Android mobile.

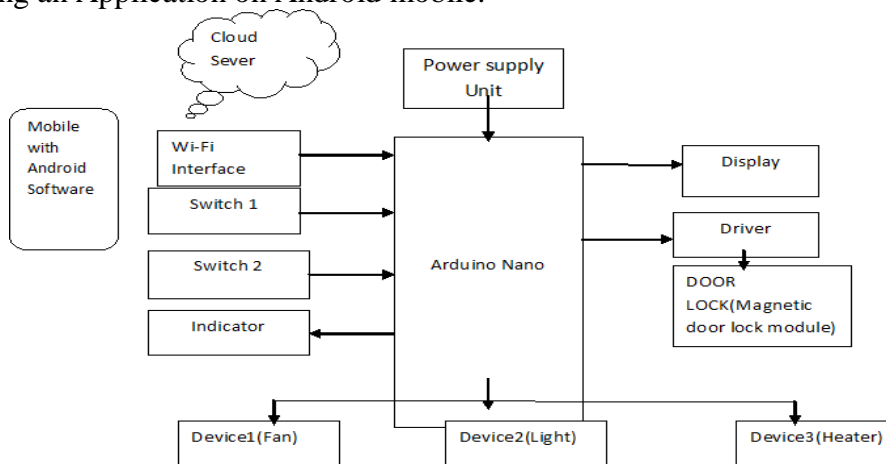


Fig.1: Block Diagram of the System

Figure 1 shows the system block diagram in which door is locked any unlocked through any voice using android application. Other devices which can also be controlled are connected through respected relays. The three devices used are fan, light and heater.

It is the voice operated door lock system along with other consumer electronics. Mobile with android application is used. Voice is sent over cloud server. For security purpose ,password is provided to android application. It is the voice recognition system in which devices can be operated through any human voice. Status of the device is indicated, whether ON and OFF on mobile. Status of all devices is also displayed on the PC. The project is developed by considering the end user.

COMPONENTS USED IN THE PROPOSED MODULE

- Arduino Nano
- Wi-Fi Module
- Display
- Relay Driver IC (ULN 2803)
- Relay 12V, 7A
- Magnetic Door Lock
- Adaptor 12V,2A
- Indicator (Tricolour LED)
- Tacticle Switch
- Diode 1N4007
- DC Tack
- Capacitor (470uF)
- Voltage Regulator (7805)
- Variable Voltage Regulator(LM 317)
- PCB (Glass Epoxy)
- Resistor
- Mini USB cable

• APPLICATIONS AND ADVANTAGES

APPLICATIONS

- 1) Can be used in Industries, Home, Office, Shops.

ADVANTAGES

- 1) Easy to use.
- 2) No range problem, we can operate it from any location.
- 3) Low cost.

• FUTURE DEVELOPMENT FOR THE PROJECT:

- 1) Voice feedback system can be provided in future

CONCLUSION

The necessity of a low cost & durable electronic home security system designed in accordance with other security purpose is always there in our society to reduce the risk of home intrusion. Keeping this problem in mind, we are working on a project on remotely controlled voice operated door lock system with other consumer electronic devices. The door with other consumer electronic devices can be controlled from any location remotely through any human voice. The main aim of the system is for security purpose. The system is low cost and has many applications.

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