VOICECOMMANDING MINIPORTABLECOOLER

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Abstract

The idea behind Google assistant-controlled Home automation is to control home devices with voice. On the market there are many devices available to do that, but making our own is awesome. In this project, the Google assistant requires voice commands. Adafruit account which is a cloud based free IoT web server used to create virtual switches, is linking to IFTTT website abbreviated as "If This Than That" which is used to create if else conditional statements. The voice commands for Google assistant have been added through IFTTT website. In this home automation, as the user gives commands to the Google assistant, Home appliances like Bulb, Fan and Motor etc., can be controlled accordingly. The commands given through the Google assistant are decoded and then sent to the microcontroller, the microcontroller in turn control the relays connected to it. The device connected to the respective relay can be turned On or OFF as per the users request to the Google Assistant. The microcontroller used is NodeMCU (ESP8266) and the communication between the microcontroller and the application is established via Wi-Fi (Internet).

1. INTRODUCTION

"Home automation" refers to the automatic and electronic control of household features, activities, and appliances. The utilities and features of our home can be easily controlled via Internet. There are three main elements of a home automation system: sensors, controllers, and actuators. Having day to day developing technology is a proud moment to the whole world. The foremost aim of the technology is to increase the efficiency and to decrease the effort. In this trending world, Internet of Things is being given extreme importance. In that, Automation, leads to have less effort and much efficiency. By using IoT, we are successful in controlling the appliances in various areas, in which one of them is to control the home automation by using Node Microcontroller. We can also use other boards like raspberry pi, beagle bone etc., In the present-day technology, the whole work is done through communication so the effective way of communication can be done through voice. Even though the technology

is developing in our day to day life, there is no help coming into existence for the people who are physically not good on the basis of technology. As the speech enabled, home automation system deploys the use of voice to control the devices. It mainly targets the physically disabled and elderly persons. The home automation will not work if the speech recognition is poor. The speech given by the user will be given as input to the Microphone. Microphone recognizes the speech given by the person and sends it to the recognizing module. It searches for the nearest word even if there are any disturbances in it. If the command (ON/OFF) is given, the action is done. Similarly, the line following robot functions with respect to the speech commands given to it. The line following robot moves forward and backward with the help of sensors and a motor driver board. Home is the place where one desires to brest after a long tiring day. People come home exhausted after a long hard-working day. Some are way too tired that they find it hard to move once they land on their couch, sofa or bed. So, any small device/technology that would help them switch theirs lights on or off, or play their favorite music etc. on a go with their voice with the aid of their smart phones would make their home more comfortable.

2. RELATED WORK

The main drawback of system is that it is failed to work efficiently in a noisy environment. The main advantage is that its range can be extended as we are using Internet instead of Bluetooth as Bluetooth has the limited range but this solution will not be cost effective. Another advantage of using Google assistant-controlled Home automation is that it is totally of wireless communication as many existing system Home automation is based on wired communication.bring out smart living condition and make our life more convenient and faster. Early home automation began with labor-saving machines. Self-contained electric or gas-powered home appliance became viable in the 1900s with the introduction of electric power distribution led to the introduction of washing machine (1904), water heater (1889), refrigerator, sewing machines, dishwashers and clothes dryers. Currently there exists system neither at cheaper rates nor easy to handle. Various systems are hard to install, difficult to use and maintain. Current systems are generally proprietary, closed and not very user friendly Based on Arduino or GSM or low-cost home security system and home automation system.

3. IMPLEMENTATION

The methodology of this project design includes implementation of the proposed

method. There are some basic steps involving in the Methodology of the product. The first major step is setting up the Adafruit IO. Adafruit IO is a website used to create virtual switches which will be turned ON or OFF depending on the commands given to the Google assistant and the second step is connecting the ESP8266 and the last step is connecting to Google assistant through IFTTT. IFTTT is also a website used to create simple chain of conditional statements for like if else statements. By following these three steps, the implementation of the proposed system is going to be done.

EXPERIMENTAL RESULTS
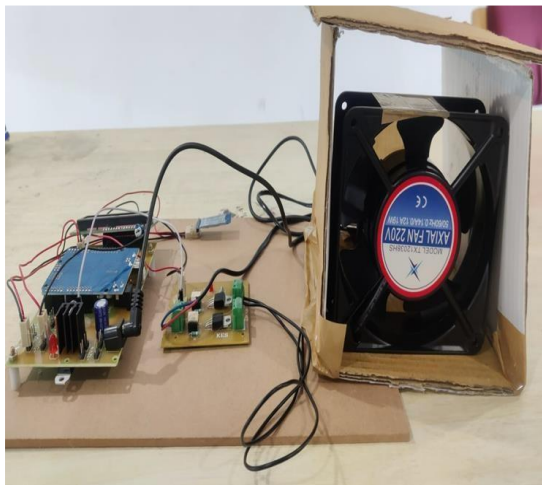
Prototype of the design

Workingmodel

4. CONCLUSION

Thevoicecontrolminiportable coolers40%moreefficientthanalreadyexistingmodels. ItgivesUsthemainassurancewhicheveryone seesforwhichis safety.Theopiratingwillalsobevery easywiththismodel.Wejustneedtosaysingle command.Nocomplexstepsneededandnouser guide. Thevoicecontrolisthenewe mergingtechnologywhichhasshow knavery positive response e.It hasbeenahugeadvancementintechnology, whereitprovesveryusefulinbighouses or forthedifferentlyabledsuch asblind. Thevoicecontrolenables anyonetousetheproduct.In caseofalreadyexistingmodelstherearemany drawbackssuchasforremotecontrolwemaylose theremoteorevenpressthewrongbuttoninmi

ddleoftheprocess. Evenwhenweareinahurry ofgoingsomewhereweneedtoset every thingfromthestart.Butbyusingthismodelwe canjust controlusingvoicecommands.

5. REFERENCE

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