

## HOME AUTOMATION SYSTEM USING ANDROID

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### ABSTRACT

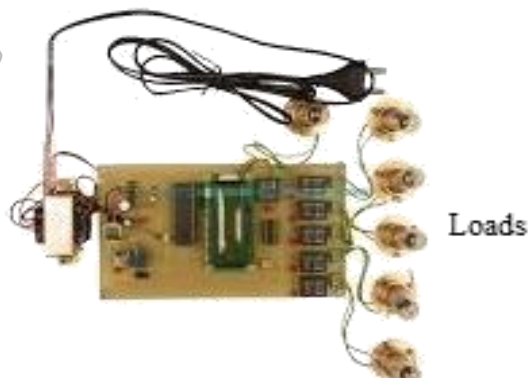
This project is predicated on Automation for Time saving similarly as physically disabled individuals. Today's quick Growing Word is predicated on Automation. This Paper Presents the look of Low price Home Automation System in previous System Wireless remote is employed. A user friendly interfacing of Bluetooth Model and golem Application with Arduino has been integrated during this Home Automation System. during this method we've got enforced a Home Automation System with golem Application. The Bluetooth management employed in Home Automation System, could be a marvelous feature that everybody would love to fancy ,if they weren't high-ticket to put in, Maintain and ready to be used from Long Distance. This project not solely indicates necessary of Automation System however conjointly it helps disabled individuals for higher life. This project conjointly helps to cut back the energy wastage and engineered up the state. This Project contains golem application, Bluetooth Model, Arduino kit.

**KEYWORDS:** Bluetooth Modem, Android application, Arduino kit.

### I. INTRODUCTION

The Home Automation system conception has remains for several years. The terms good Home followed and are accustomed introduce the conception of appliances within the home. though home automation system nowadays isn't

a replacement issue however most advance home automation system alive nowadays needed a giant and high-ticket modification of infrastructure. This project is ok combination of humanoid mobile technology, Arduino UNO and Bluetooth electronic equipment.



Photograph 1.1: Home Automation Model

In this fashionable space of development, automation of everything is that they would like of the individual. Home automation aims at automating the human lives. Activating the house devices while not standard switch however by employing a good phone is understood as home automation system.

Good homes are getting a lot of well-liked, once a year a replacement appliance may be controlled digitally. New wireless technologies conjointly facilitate the mobile devices in order that users will management all the various

appliances employing a single device. easy access and use, is that the main purpose of the many remote controllers we tend to currently use for our devices.

In gift day worldwide a lot of significance is placed on wireless technology. it's because; wired networks area unit extremely difficult. These wireless technologies have wedged human life in an exceedingly positive manner and human development speed has enlarged fore fold. Central system is established that helps regulates the practicality of home appliances.

**II. LITERATURE SURVEY**

Now a day, each folks have good phones with all of them the time. therefore it is sensible to use these to regulate home appliances victimization mechanical man application by connecting Bluetooth electronic equipment. bestowed here may be a home automation system employing a straightforward mechanical man app, that you'll be able to use to regulate electrical appliances with clicks, Commands ar sent via Bluetooth to Arduino Uno. therefore you would like not get on my feet to change on or switch the device whereas looking a picture show or performing some work. Home automation system with mechanical man phone is obtaining standard and wide utilized in lots of homes worldwide. it's several of benefits to users even a lot of to the incapacitated and aged users within which it'll create it

**III. SYSTEM DEVELOPEMENT**

**3.1 ARDUINO UNO**

The Uno may be a microcontroller board supported the ATmega328P. it's fourteen digital input and output pins (of that vi are often used as PWM outputs), vi analog inputs, a sixteen rate quartz, a USB association, an influence jack, and a push. The Arduino Uno features a range of facilities for act with a pc, another Arduino. The ATmega328 provides UART TTL (5V) serial communication. It involves everything required to support the microcontroller; merely connect it to a pc with a USB cable or power it with associate degree AC-to-DC adapter or battery to urge started.



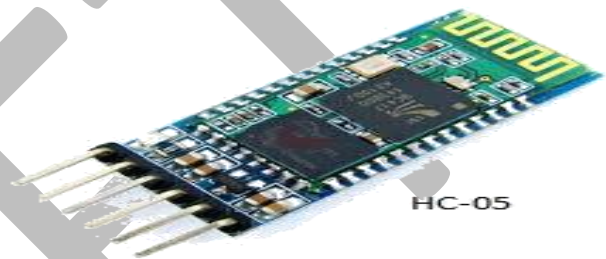
Photograph 3.1: Arduino UNO

**Why Arduino UNO?**

Arduino UNO is associate degree ASCII text file physics platform supported easy-to-used Hardware and software system. Arduino board's already to browse inputs-light on a detector, a finger on button it into associate degree output activating a motor, activate associate degree diode, business one thing on-line.

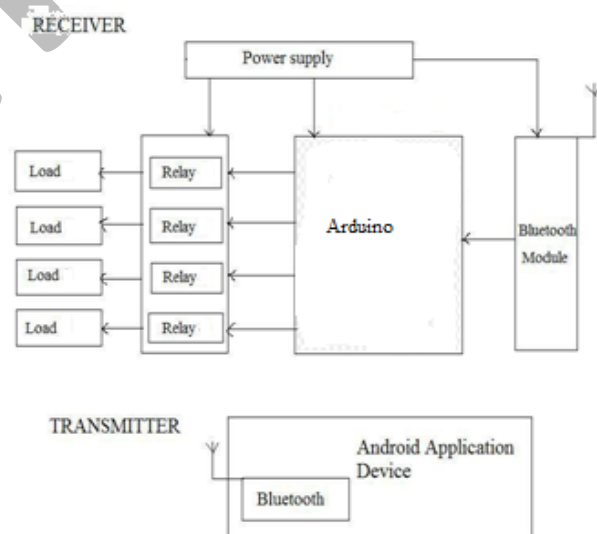
**3.2 BLUETOOTH MODEM**

The HC-05 Bluetooth model is often employed in a Master or Slave Configuration, creating it a far better answer for wireless communication. you'll use it merely for a interface replacement to determine affiliation between Bluetooth to your project.



Photograph 3.2 Bluetooth model HC-05

Have no text to check? Haven't any texts to check? Click "Select Samples".HC-05 module is a simple to use Bluetooth module, designed for clear wireless serial affiliation setup. port Bluetooth module is absolutely qualified Bluetooth 3Mbps Modulation with complete two.4GHz radio transceiver and baseband..



Photograph 3.3:Block Diagram

This project could be a fine combination of automaton mobile technology and Bluetooth electronic equipment. User will management Home appliances mistreatment automaton mobile. AN application ought to be put in on

his/her automaton phone to regulate varied home appliances. User will send commands mistreatment that application. Wireless dominant technique employed in this project is Bluetooth technology as shown.

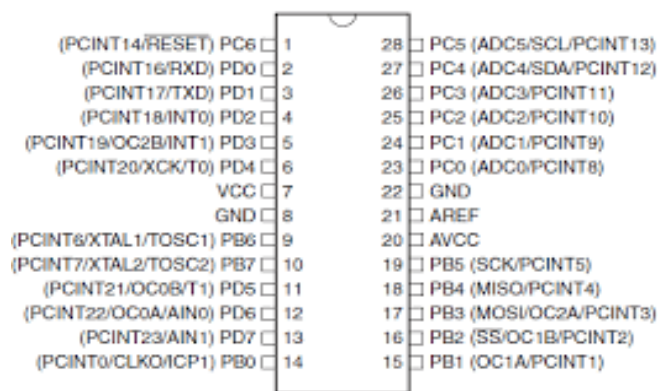
This Bluetooth device is connected to the circuit that contains a decoder. The several device connected to the circuit are turned on or off looking on the command given.



Photograph 3.4: Regulator

A ceiling fan motor is predicated on Faraday's Law of Electro-magnetic Induction in line with that whenever a current carrying conductor is placed in a very rotating force field, associate degree electro-magnetic force is evoked therein conductor.

The frequency of the evoked electromotive force is that the same because the offer frequency and its magnitude is proportional to the relative motion between the flux and also the conductor Before coping with the fan regulator, a short discussion regarding the fan motor is important because the main purpose of the regulator is to manage the speed of the motor The direction of the evoked electromotive force is given by the Fleming's paw Rule.



Photograph 3.5: Pin diagram of ATmega328P

The Microcontroller ATmega328P provides the subsequent features: 32Kbytes of In-System Programmable Flash with Read-While-Write capabilities, 2Kbytes SRAM,1Kbytes EEPROM twenty three general

purpose I/O lines, thirty two general purpose operating registers, Real Time Counter (RTC), one serial programmable USARTs,1byte-oriented 2-wire Serial Interface (I2C), a 6- channel 10-bit ADC (8 channels in TQFP and QFN/MLF packages) , a programmable Watchdog Timer with internal generator, associate degree SPI interface, and 6 computer code selectable power saving modes.

IV. RESULT



Photograph 4.1: Project Model

V.CONCLUSION

In conclusion, this low value system is meant to enhance the quality living in home and industrial applications. The Bluetooth operation by good phone provides facilitate particularly to disabled and older persons. so as to supply safety protection to the user, a miniature circuit breakers and low voltage activating switches is replaced current electrical switches.

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