

Illegal Parking Detection and Alerting

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ABSTRACT: This venture portrays the various highlights and advances present in RFID based security protect framework utilizing Bluetooth by outlining numerous examination done over time. In today's world, security is a very important part of technology. Presently, security is provided manually to various institutions, places etc. Because of this, we require human power. The old security framework should be supplanted via mechanized one where framework will work for direction and identification of outsiders utilizing RFID labels. A Bluetooth connectivity module will be attached on the project can be used for send the SMS to authorized person.

KEYWORD: RFID, LCD, LED, Buzzer, Bluetooth, Module, GSM.

I. INTRODUCTION

The leaving infringement is the demonstration of leaving the vehicle in the unapproved spot or leaving in a limited territory. The current scenario in major cities and towns is the ever-growing human population as well as the vehicle population. Those things creates the rise to need for the multi-level parking lots. The free parking is the most prevalent forms of parking in India. In case the people planned to park in the street side but there is no vacant places, the people drive around hunting for the place. Especially in the metropolitan area there is a problem because of the increase of the cars and the decrease the amount of the free space. In our project the parking management system provide such a features like security management system, dynamically allocate the slots and this is used to count the number of vehicles inside the parking area. The number of the driver grows, so it brings the convenient and safe parking.

II. PROPOSED METHOD

The RFID label which contains the client's one of a kind data is filter by the RFID peruser and affirmed coordinate with the data put away in the microcontroller. The microcontroller is told to turn, show "client number and card number" on the LCD and enacts the Bluetooth module to send message alert "approved, legitimate RFID card appeared, User is permitted to enter, client number" to security staff. The LCD is used to display the current nature and the red and the blue lights are used to indicate the person is an authorized or unauthorized. And also here users uses the ultrasonic sensors.

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III.METHODOLOGY

A. BLOCK DIAGRAM

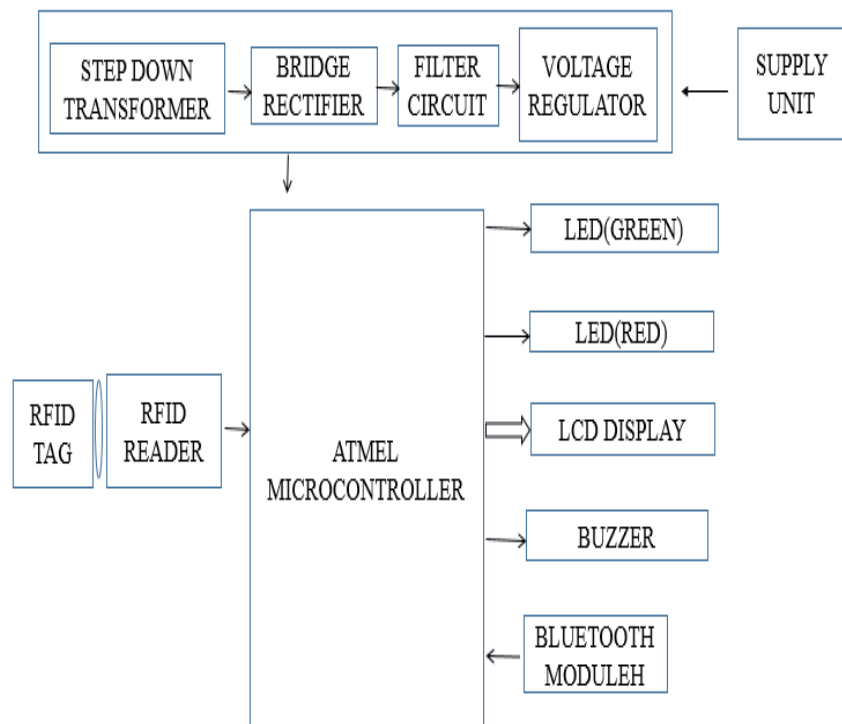


Fig 1. Block diagram

B. LCD DISPLAY

A model described here is for its low price and great possibilities most frequently used in practice. It depends on the HD44780 microcontroller (Hitachi) and can show messages in two lines with 16 characters each . It displays all the alphabets, Greek letters, punctuation marks, mathematical symbols etc. In addition, it is possible to display symbols that user makes up on its own. Programmed moving message in plain view (move left and right), appearance of the pointer, backdrop illumination and so on are considered as helpful attributes.

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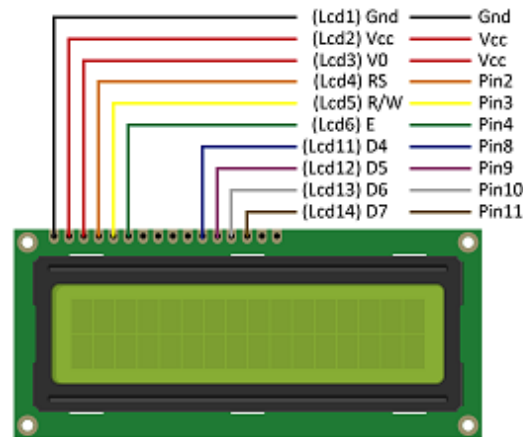


Fig 2. Pin Specification of LCD Display

C. *RFID READER*

RFID, Radio Frequency Identification is an innovation, which incorporates remote information catch and exchange handling. Closeness (short range) and Vicinity (long range) are two significant application zones where RFID innovation is utilized .Track and trace applications are long range or vicinity applications. This technology provides additional functionality and benefits for product authentication. Access control applications are Short range or closeness kind of utilizations. Dexterous Sense Technologies is centered around conveying inventive, high worth RFID arrangements helping organization track resources, individuals and reports. Nimble Sense gives powerful and complete RFID arrangements based over its extensible middleware/structure for Government, Healthcare, Manufacturing and Aerospace enterprises.



Fig 3. Picture of RFID READER

D. *LED*

A light-producing diode (LED) is a two-lead semiconductor light source. It is a p–n intersection diode that discharges light when actuated. At the point when an appropriate current is applied to the leads, electrons can recombine with electron gaps inside the gadget, discharging vitality as photons. This impact is called electroluminescence, and the shade of the light (comparing to the vitality of the photon) is controlled by the vitality band hole of the semiconductor. LEDs are ordinarily little (under 1 mm²) and coordinated optical parts might be utilized to shape the radiation design.

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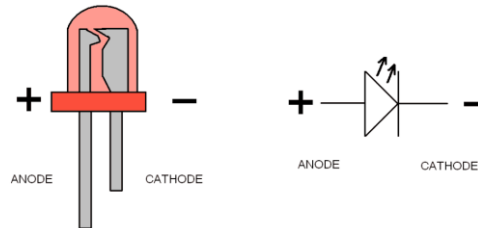


Fig 4. LED Specification

E. BLUETOOTH MODULE

It is utilized for some, applications like remote headset, game controllers, remote mouse, remote console and a lot more customer applications. It has extend up to <100m which relies on transmitter and recipient, air, geographic and urban conditions. HC-05 is a Bluetooth module which is intended for remote correspondence. This module can be utilized in an ace or slave design. Along these lines, when we need to convey through advanced mobile phone with HC-05 Bluetooth module, interface this HC-05 module to the PC by means of sequential to USB converter.

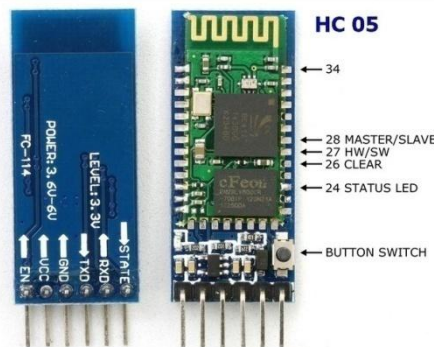


Fig 5. Picture of Bluetooth Module

F. Buzzer

A ringer is a little yet productive part to add sound highlights to our undertaking/framework. It is extremely little and smaller 2-pin structure subsequently can be effortlessly utilized ready and even on PCBs which makes this a generally utilized segment in most electronic applications. There are two sorts are signals that are generally accessible. The one appeared here is a basic bell which when fueled will make a Continuous Beeeeeeppp.... sound, the other kind is known as a readymade bell which will look bulkier than this and will deliver a Beep. Blare. Signal. Sound because of the interior wavering circuit present inside it. In any case, the one appeared here is most broadly utilized in light of the fact that it tends to be altered with assistance of different circuits to fit effectively in our application. This signal can be utilized by just driving it utilizing a DC power supply running from 4V to 9V. A straightforward 9V battery can likewise be utilized, however it is prescribed to utilize a directed +5V or +6V DC supply. The signal is ordinarily connected with a changing circuit to kill ON or turn the bell at required time and require interim.

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Fig 6. Picture of Buzzer

IV. EXPERIMENTAL SETUP AND RESULT

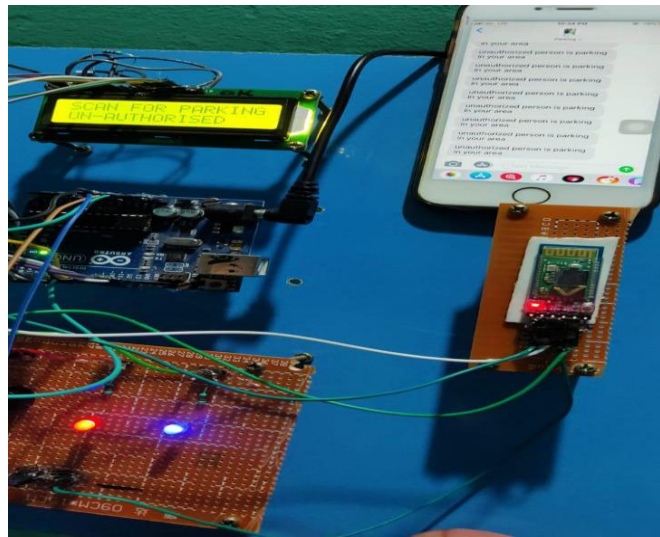


Fig 7. Experimental Setup

V. CONCLUSION

RFID based security and access control framework is increasingly secure and quick reacted when contrasted with the other framework like biometric. The upside of the RFID framework is contact-less and works without-view. By utilizing microcontroller it is anything but difficult to access and works rapidly while consuming the code it resembles fitting and play gadget. Clients can change the capacity in like manner by utilizing a microcontroller. It is simpler to utilize and precise too. Henceforth this undertaking can be valuable for execution of access control application for following framework just as giving the security benefits. This undertaking can improve by raising the scope of peruser in which the label read.

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