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E-Mail

[editor.ijmece@gmail.com](mailto:editor.ijmece@gmail.com)

[editor@ijmece.com](mailto:editor@ijmece.com)

[www.ijmece.com](http://www.ijmece.com)

## CONTACTLESS NOTICE BOARD

<sup>1</sup>K Prasanth, <sup>2</sup>M Sheshi Rekha <sup>2</sup>M Sheshi Rekha, <sup>3</sup>Manne Pavani,

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### ABSTRACT

In general, notice boards are playing very important role in our day to day life. By replacing conventional analog type notice board with LCD or LED or DIGITAL we can make information reached much easier in a paperless community. Here the admin can control the information on notice board through Bluetooth. So information can be sent anywhere in the world and can be displayed within seconds. Mobile phone is used for sending information and Bluetooth is used for transmitting the information from mobile to LED display. With the help of this technology we can add or delete the information at any time. The information can be Text, Image or Video.

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**Keywords:** LED Display, Bluetooth HC05, Mobile phone with Bluetooth terminal app, Arduino uno, Max 232.

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### INTRODUCTION

In general, we can see paper based Notice board at many places like bus stand, railway station, schools and many other different places. To make this paper based notice board much time is required and it also takes a lot

of man power to do it, one person needs to prepare the information and print it on a paper, the other person need to go for particular

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Assistant Professor, Department of ECE, Samskruti College of Engineering and Technology

Assistant Professor, Department of ECE, Samskruti College of Engineering and Technology,

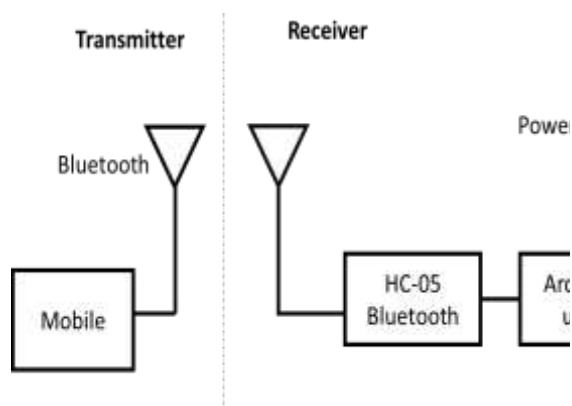
Assistant Professor, Department of ECE, Samskruti College of Engineering and Technology.

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place to paste the notice, moreover, they have to do this every time whenever one wishes to update or change the information. The main risk in this type is every time a person should climb to a certain height to paste the notice.

To overcome these conditions we are using smart noticeboard. In this new smart notice boards we do not require any paper and printing machine to print the information. There is no risk of climbing every time to change the notice.

## I. BLOCK DIAGRAM



**FIG 3.1: SYSTEM BLOCK DIAGRAM**

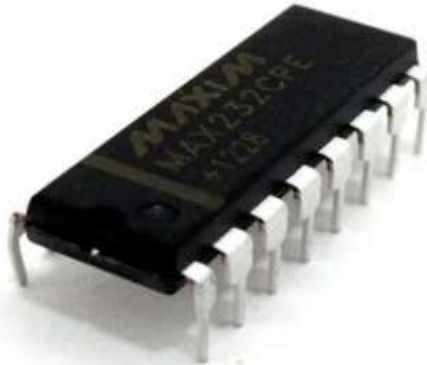
## SYSTEM COMPONENTS

### POWER SUPPLY:

Power supply is used for supplying the power to all to all the sections which are shown in the block diagram. To start the machine power supply is very important.

**MAX 232:**

Max 232 is an integrated circuit by maximum integrated products that converts signals from a TIA-232(RS-232) serial port to signals suitable for use in TTL compatible digital logic circuit.

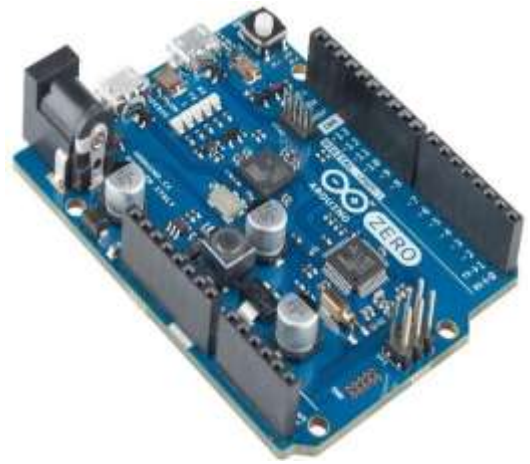


**Fig: Max 232**

**ARDUINO UNO:**

The Arduino uno is a standard board of Arduino. Hence UNO means 'one' in Italian. It was first release of Arduino software. Arduino UNO is low-cost, flexible and easy to use programmable open source microcontroller. It has 20 digital and analog input/output pins(of which six can be as pulse width modulation output and six canbe used as analog input). In this project Arduino uno is used to collect information from Bluetooth terminal and store it in other string. The Arduino has number of ways and facilities for communicating with the system. Program can be written in any coding language and can be stored in the USB of the Arduino for running any device. The Arduino uno resets itself without any requirement of physical press of reset button. Arduino is also

considered as the first series of USB-based Arduino boards.



**Fig: Arduino uno**

**BLUETOOTH MODULE HC-05:**

HC-05 is a Bluetooth module which is designed for wireless communication. This module have six pins. It has led which indicates connection status.



**Fig: Bluetooth module HC-05**

## LED DISPLAY:

LED display is for showing the output of the project. There are different sizes of led's available. The light emitting diode is used for displaying the necessary information. Led's have high brightness quality.



Fig: led display

## WORKING

We start this by installing an application called 'BLUETOOTH TERMINAL' in our mobile and connect it with terminal in kit, soon after this the led on HC-05 starts blinking which indicates that the connection is successful. At a time we can only connect one mobile phone. When we see a blink on HC-05 Bluetooth terminal that's when we give the input through the connected mobile. The input is given with '\*' followed by the text. And then we press enter, and then send. All the information given can be seen on the LED display.

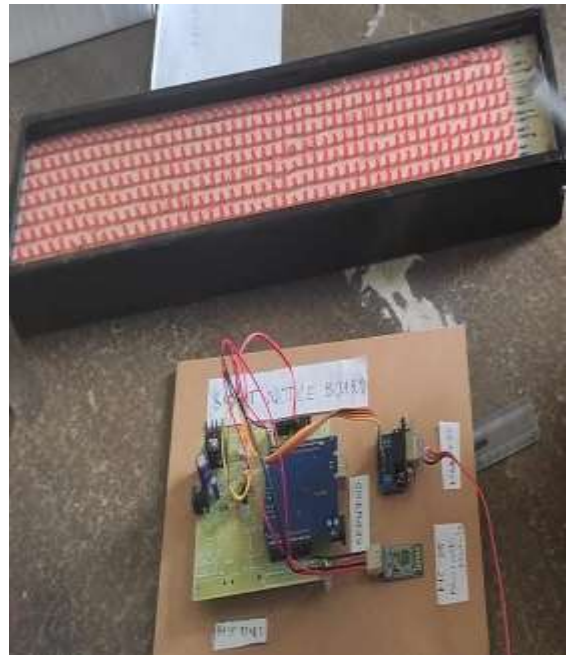


Fig: contact less notice board using Bluetooth

## II. RESULT:

The results of the project are obtained by doing the above said process. The information given as an input will be displayed on notice board(LED screen) as per the users choice and need.



Fig: Result of the project

### III. APPLICATIONS

- They can be used in colleges for displaying notices and circulars for different departments.
- Can be used for weather forecast.
- To display the availability of tickets in the line of a match or program.
- controlling traffic on the road.
- Instead of only announcing the information in the railway stations, the information can be even displayed on smartnotice board.
- Multiple advertising purposes.

### IV. CONCLUSION

From this project we can use new technology for giving information in an effortless way and it is not as clumsy as the old methods of displaying public information. There is zero risk of operation in this if handled with care. These display boards stand as major medium of displaying information. The information displayed can be reached to large amount of people within fraction of seconds which can be done by graphics and other decoding techniques. It is also environment friendly.

Paper printing and pasting sometimes can cause loss of information. smart notice boards are way different from that as the information is displayed digitally. This project is just a start to make use of GSM in communications which take it to another level.

### V. REFERENCES

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