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# Wireless Notice Board

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**Abstract:** *The initial work of getting familiar with the Arduino board was accomplished by interfacing a couple of modules with it, namely the LCD module and the GSM module. This prompted us to implement a wireless notice board, where the above-mentioned modules were used as the major components of the project model. The main purpose of this model was to display the message electronically on a LCD screen when a message is sent to the GSM module through a mobile phone. We aimed to make this model popular, so that it becomes less cumbersome to broadcast a message in public places, like school/college notice boards, bus station displays, restaurant displays etc. This task has been done by using Arduino UNO, GSM Module, LCD Display. We attempt to this project model real-time by integrating a GSM Module with it.*

**Keywords :** *Arduino UNO, GSM Module, LCD Module, Connectors*

## I. INTRODUCTION

We can see the notice boards being used specially at offices and public places to display important news and notices. But changing notices day-to-day is a difficult task. This project is a solution to this problem. So, to make the notice boards easy to use and more technically advance, this prototype of wireless notice board where we can display the message by simply sending the message through the cell phone is developed. The display systems are very accurate easy to control cheaply available and the most important thing is that they can be operated on low voltage. The main aim of this project is to save time and provide information on display for the customers. It can be used for multiple purposes like we can share live share market news, we can send trains time table to display, we can show lectures time

## II. LITERATURE SURVEY

The field chosen to work on as the engineering project was Embedded Systems, therefore we started with an initial research on the embedded boards available. We realized that there were a plethora of programmable boards working on open-source software. Among the many options were Raspberry Pi, Arduino, Beagle bone etc. Out of all these, we chose the Arduino platform as the most favorable to work on, because of its ease of availability, its feature of being user friendly, and its software being open-source. Also, we found that this platform was the best for us as beginners to learn and explore its potential features and functionality. We also noticed that there were a large number of applications which were based on Arduino, and this prompted us to rivet on working on this platform.

We initially explored the various modules that can be interfaced with the Arduino board, thus, beginning with the LCD module and GSM module, we tried to implement an electronic notice board. During this process, we came to know that there are different kinds of boards available, and we had to narrow down to the board specific to our application. This prompted us to explore more applications which could be implemented using this platform. We studied about automated attendance monitoring system, electronic door locker, fake currency detector, blind navigation system etc.

After analysing the economic feasibility of the selected project models, we came to a conclusion to work on a Wireless Notice Board using Arduino UNO. Since we had already worked on the interfacing of LCD and GSM modules, we decided to integrate these modules to the Wireless Notice Board. We decided to work on this project with the vision of using this model extensively for any circular in college, railway station and any other public places.

## III. METHODOLOGY

- A. Designing and develop the system for provide information on display for the costumer and by saving time. i.e. Wireless Notice Board, for costumer using Arduino UNO, LCD Module, GSM Module, Connectors.
- B. This gadget is widely used at offices and public places to display important news and notice.
- C. Mobile Phone sent the SMS which will be display on the Liquid Crystal Display, ie. Liquid Crystal Display Module is used for display the notice or message
- D. When we send the message from mobile, the GSM Module mounted on the receiver side, receives the messages
- E. The Arduino UNO will read the message from GSM Module and display it on Liquid Crystal Display.

#### IV. IMPLEMENTATION

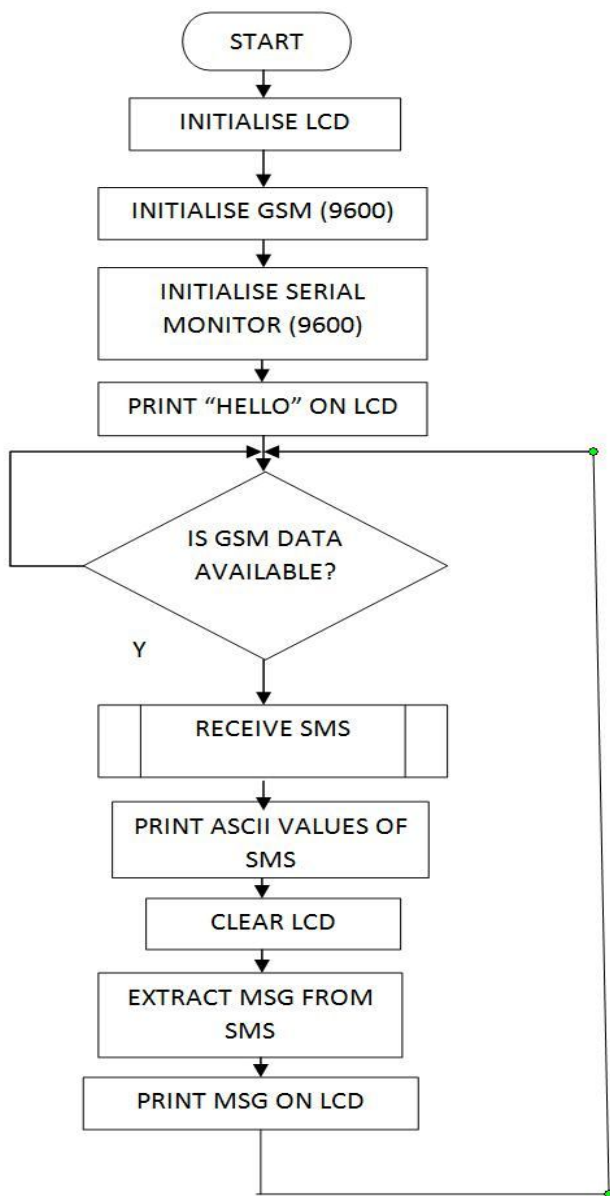


Fig1: Flowchart

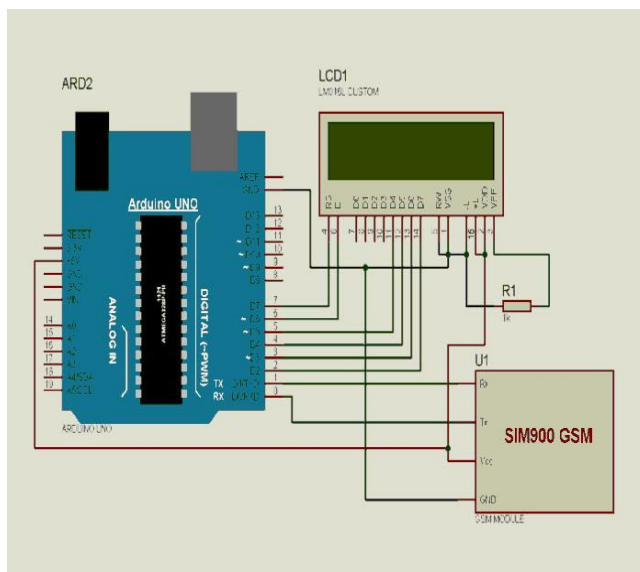
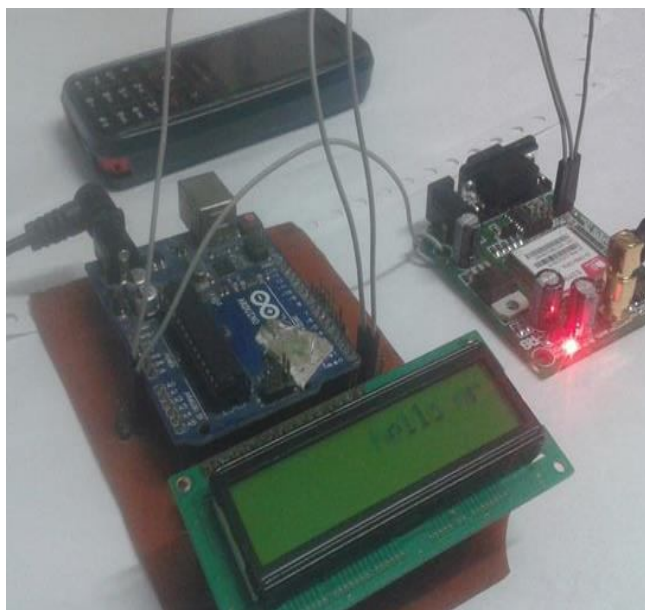


Fig2: Circuit Diagram



**Fig 3: Implementation**

- A. Arduino based wireless notice board, in this project GSM Module is used for to receive the sent SMS from mobile phone, LCD Module to display the message and Arduino UNO is used for controlling the whole process.
- B. The wireless notice board is first initialized which includes the initialization of GSM module and LCD by setting up the baud rate.
- C. Then the GSM module is set in the text mode to receive text message by using AT commands.
- D. Now when a text message has to be displayed on the notice board, we have to send this message a text message from our mobile phone to the SIM number of the GSM module.
- E. The GSM module in receiving mode receives the message and sends it to Arduino UNO.
- F. The Arduino UNO processes this received message and displays it on the LCD.

## V. CONCLUSION

- A. Wireless Notice Board system are still in demand among people everywhere bit along with their demand is their desire
- B. The GSM based display system that we have created has been in practical use in many companies like in construction and research area railways, colleges etc.
- C. The wireless notice board avoid paper work, reduce human efforts or man power in different areas.

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