PES UNIVERSITY

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100 Feet Ring Road, BSK 3rd Stage, Bengaluru-560085

DEPARTMENT OF ELECTRONICS AND COMMUNICATION

SUBJECT: NEXTGEN COMMUNICATION SYSTEMS

(Summer Course)

Project Topic

Wireless Notice Board

Under the Guidance of: Prof. Prajeesha

Submitted by:

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Project: Wireless Notice Board

Abstract:

This project aims to aims to design and implement a wireless notice board using simple and readily available components: an Arduino Uno, a Bluetooth module HC-05, a 16x2 LCD display, jumper wires, a 1k ohm resistor, and a breadboard. With the help of the wireless notice board, messages may be shown remotely over Bluetooth, providing quick updates without requiring users to physically interact with the board. This initiative can be especially helpful in workplaces, public spaces, and educational institutions where prompt and adaptable communication is essential. Through the use of Bluetooth technology, this system offers a practical and affordable answer to contemporary communication needs.

Hardware Required:

1. Arduino Uno
2. Bluetooth module HC-05
3. 16x2 LCD display
4. Jumper wires
5. 1000-ohm resistor
6. Breadboard

Software Used:

1. Arduino IDE v2.3.2
2. E&E: Arduino Automation App

Fig: E&E: Arduino Automation App

Circuit Connections:

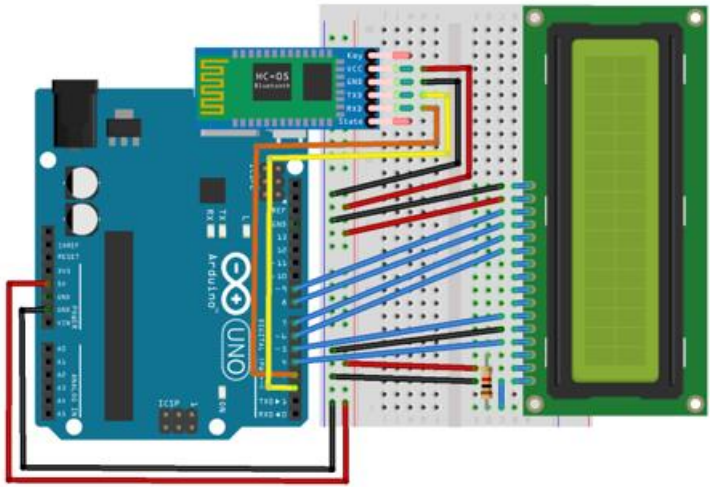


Fig: Representative diagram of Circuit

Working:

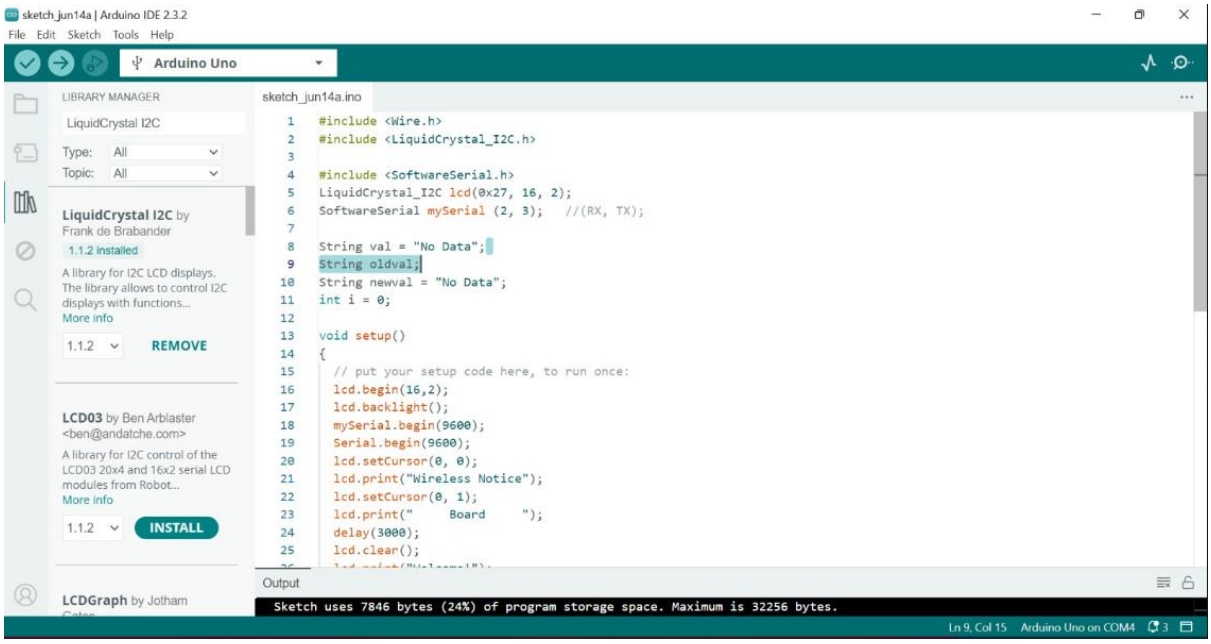
Component List and Function

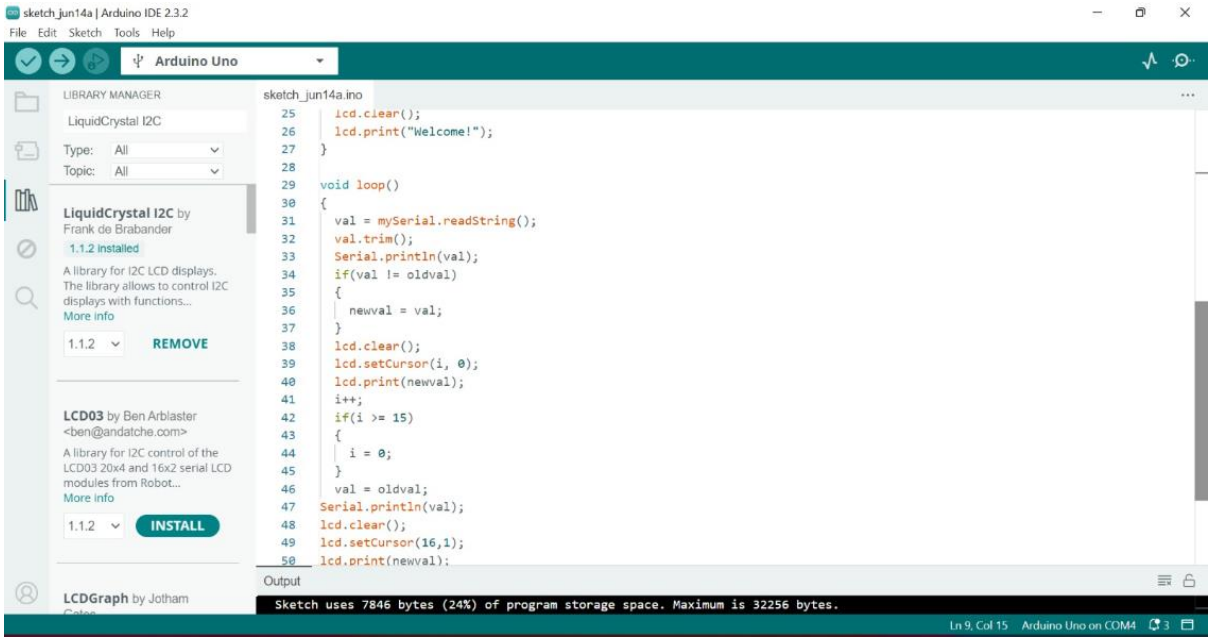
- Arduino Uno: Acts as the central processing unit of the project, interpreting commands and controlling the display.
- Bluetooth Module HC-05: Enables wireless communication between the Arduino and a Bluetooth-enabled device (such as a smartphone or computer).
- 16x2 LCD Display: Displays the received messages. It can show up to 32 characters at a time across two lines.
- Breadboard: Provides a versatile platform for building the circuit without soldering.
- Jumper Wires: Used to connect the various components on the breadboard.
- 1k Ohm Resistor: Used to set the contrast of the LCD display

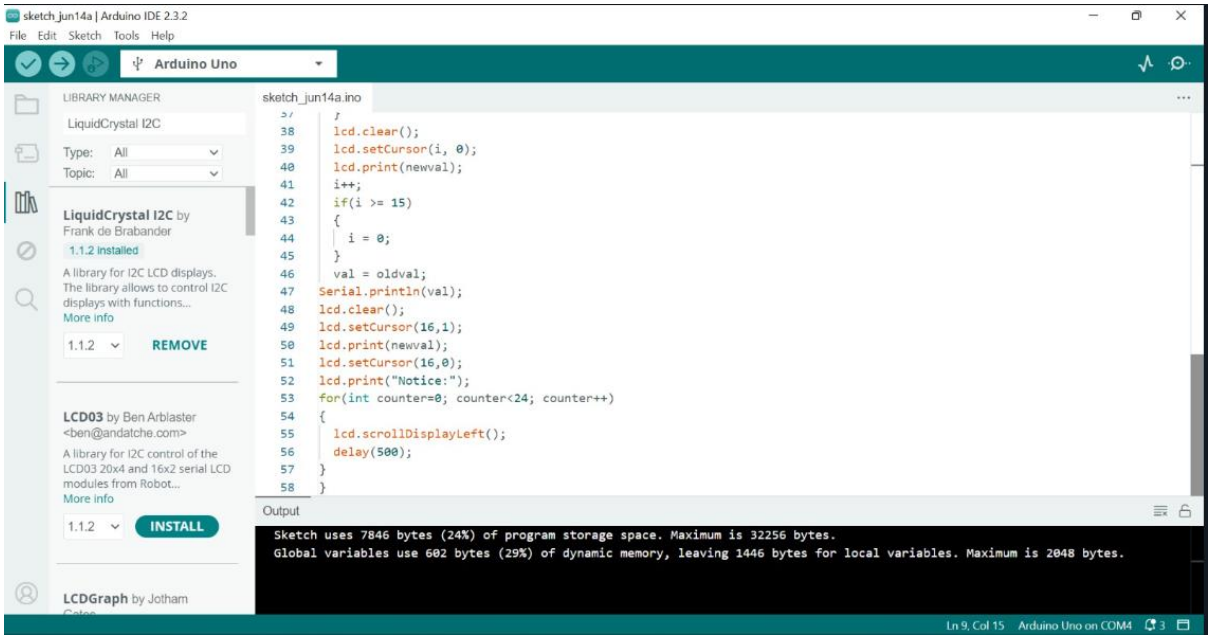
Circuit Design

- Power connections
- Data connections

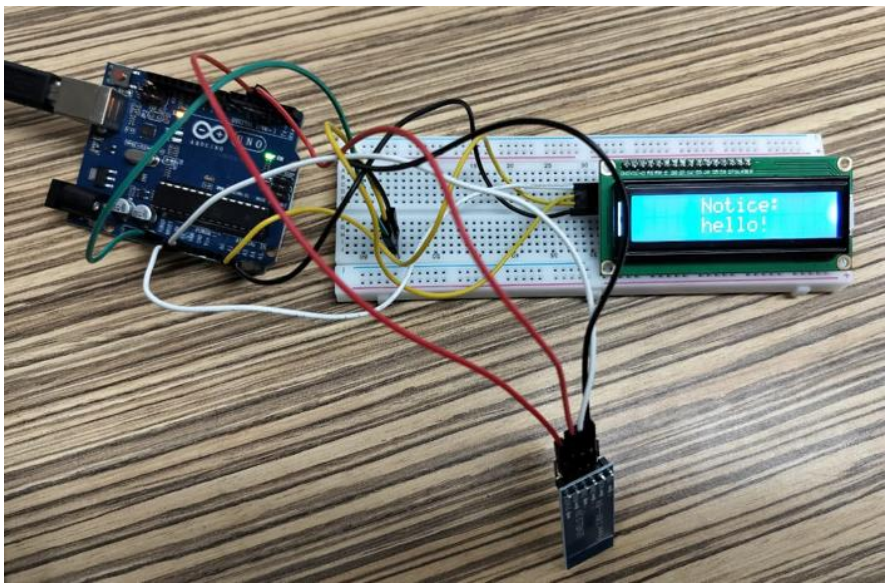
Code Implemented:







Working Model:



Conclusion:

This project demonstrates a practical implementation of a wireless notice board using readily available electronic components. By leveraging Bluetooth communication, it provides a flexible and efficient solution for real-time message display.

Acknowledgement:

We thank Prof. Prajeesha and the Department of ECE, PES University, Bengaluru for offering the summer course 'NextGen Communication Systems' and providing us with the opportunity to present our working model based on its applications.