TRAFFIC SIGNAL CONTROL

TEAM MEMBERS

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Traffic Signal Control with Arduino

Introduction:

This week, we successfully implemented our project in Proteus software, and the output was generated correctly.

Procedure:

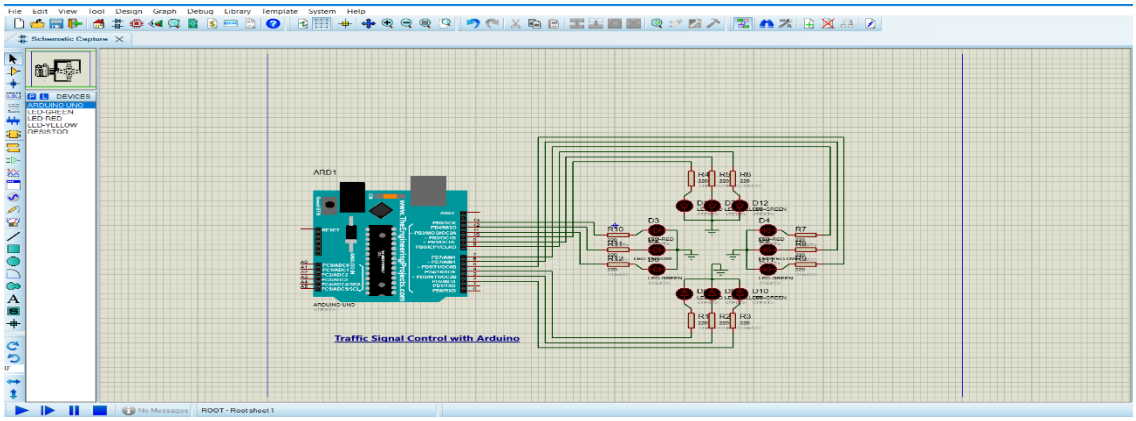
- Write and compile your Arduino code in the Arduino IDE. Ensure that "Verbose output during compilation" is enabled to track the location of the generated .hex file.
- Locate the .hex file in the output directory specified by the Arduino IDE after compilation.
- Open Proteus and design your circuit, including the appropriate Arduino board model and any additional components you plan to use.
- Double-click the Arduino board in Proteus, then browse to and load the .hex file into the "Program File" field.
- Run the simulation in Proteus to test the circuit and verify that the Arduino operates as intended with the connected components.

Execution Proteus:

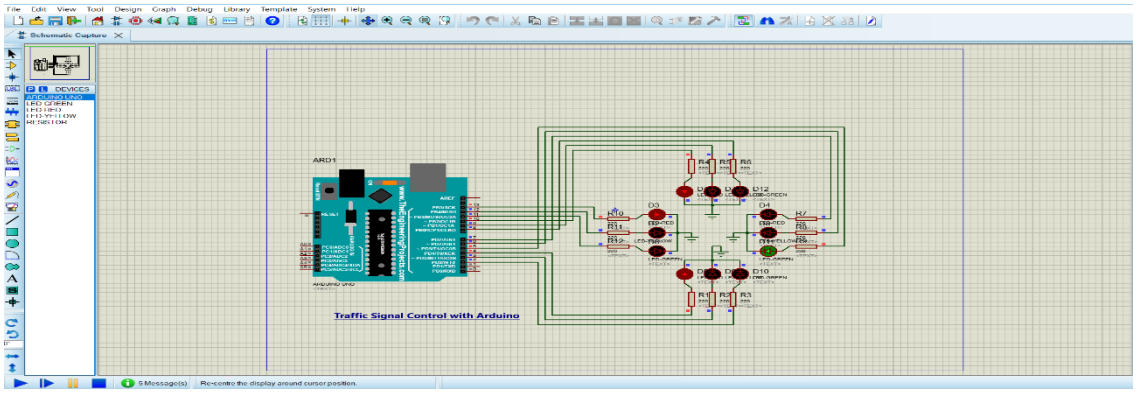
After completing the initial programming on the Arduino, I further developed the project by simulating the traffic signal control system in Proteus software. This allowed me to visualize the circuit and test the functionality in a virtual environment.

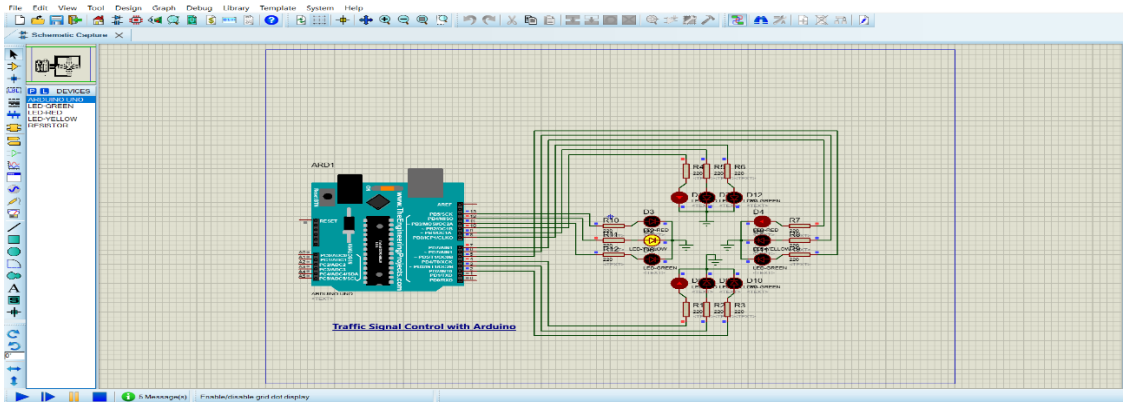
proteus diagram:

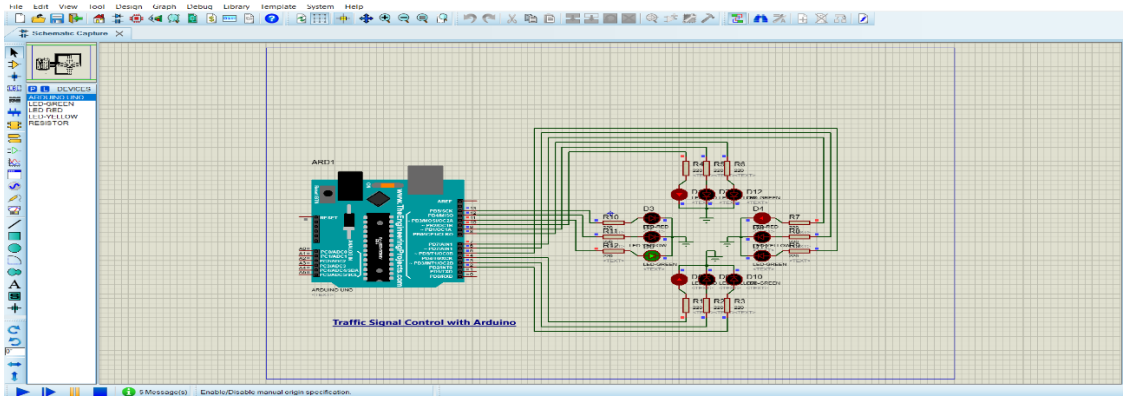
Without running condition:



Running Condition:







- Successfully completed interfacing Arduino with Proteus for simulation.
- Plan to create a full extension of the project by developing a comprehensive simulation video.
- The video will offer a detailed walkthrough of the project's functionality.
- It will showcase the practical implementation within a simulated environment.

Future:

Next week, we can add a seven-segment display to the project to show the signal timing. This addition will enhance the system by providing a visual countdown for the traffic signals.

Conclusion:

This week, we made significant progress by successfully implementing our project in Proteus software. The system performed as expected, and we were able to achieve accurate outputs, confirming the functionality of our design. This accomplishment brings us closer to our project goals and provides a strong foundation for further development.