AMEIRCAN INTERNATIONAL UNIVERSITY-BANGLADESH (AIUB)

FACULTY OF ENGINEERING

MICROPROCESSOR AND EMBEDDED SYSTEMS [F]

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Lab report on

Experiment 03: Familiarization with Visual Designer for Arduino™ AVR and Raspberry Pi and implementation of a traffic control system using Drag - Drop - Play.

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Title:

Familiarization with Visual Designer for Arduino™ AVR and Raspberry Pi and implementation of a traffic control system using Drag - Drop - Play.

Introduction:

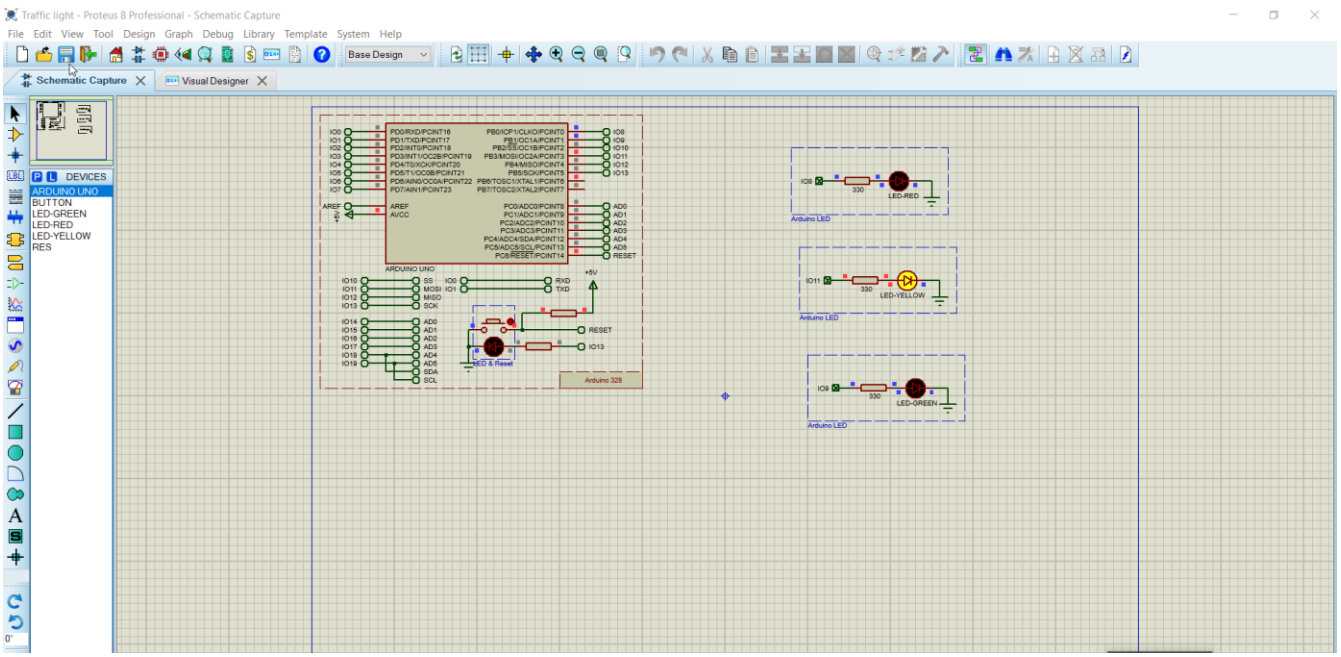
The objective of this experiment is to get familiarized with Proteus Visual Designer.

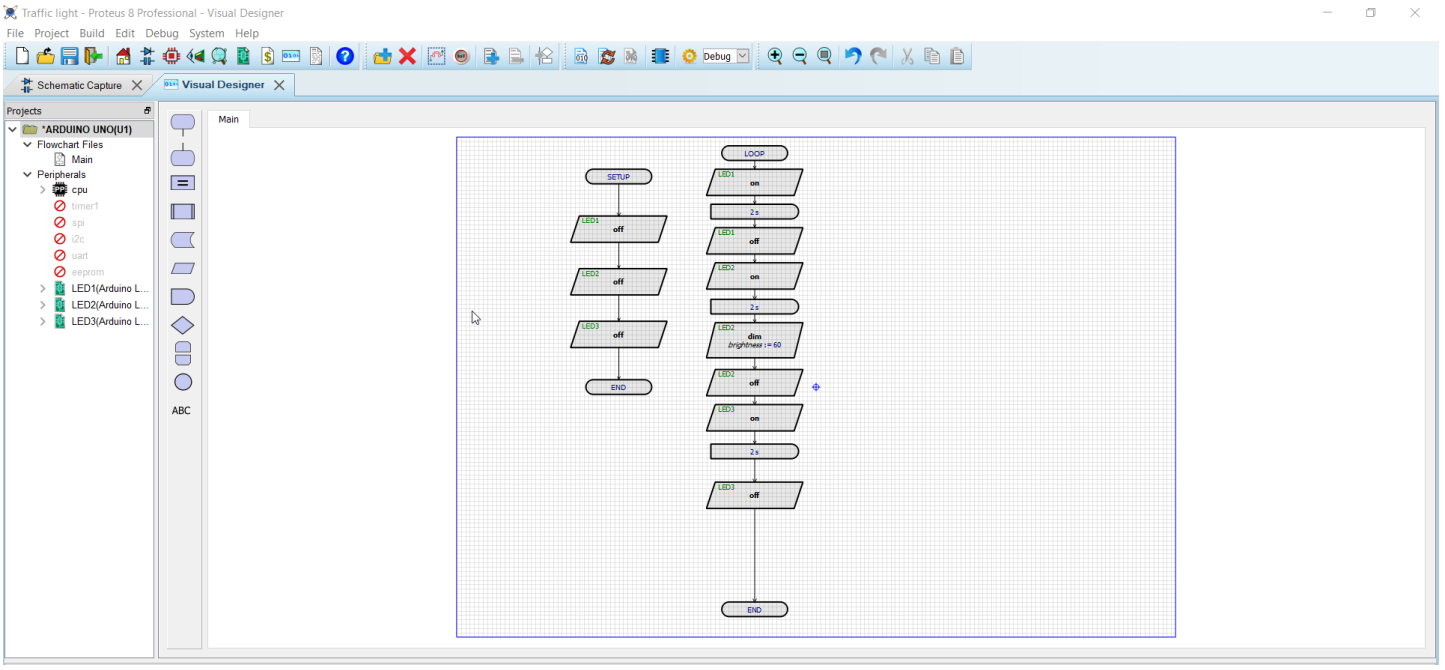
- Learning to make embedded system using Drag-Drop-Play Method.
- Implementation of traffic control system using Drag-Drop-Play Method.

Theory and Methodology:

Proteus Visual Design suite is a software tool set mainly used by engineering students and professionals to create schematics, simulations of different electronics and embedded circuits and design PCB layouts. This Software also a gallery of virtual hardware to provide a truly integrated and intuitive development environment for Arduino and Raspberry pi. Proteus visual Design is also used for designing and testing programming codes for different microcontrollers such as, Arduino, PIC microcontroller,8081 etc. In embedded projects engineers/students need to design a programming code for microcontrollers and for designing such codes need to perform a lot of testing, which involves uploading codes to microcontroller. So, in such projects Proteus is a great relief.

Simulation Design:





Discussion:

According to our design, the Red Led turn on for two seconds, then it turn off. After that the yellow Led turn on and turnoff after two seconds. Then the Green Led turn on and after two seconds it turn off .And this process will again move on continuously.

Reference(s):

1) https://www.arduino.cc/.
2) https://www.labcenter.com/visualdesigner/
3) https://youtu.be/yHB5it0s2oU