Microprocessor Systems and Interfacing

Lab Report

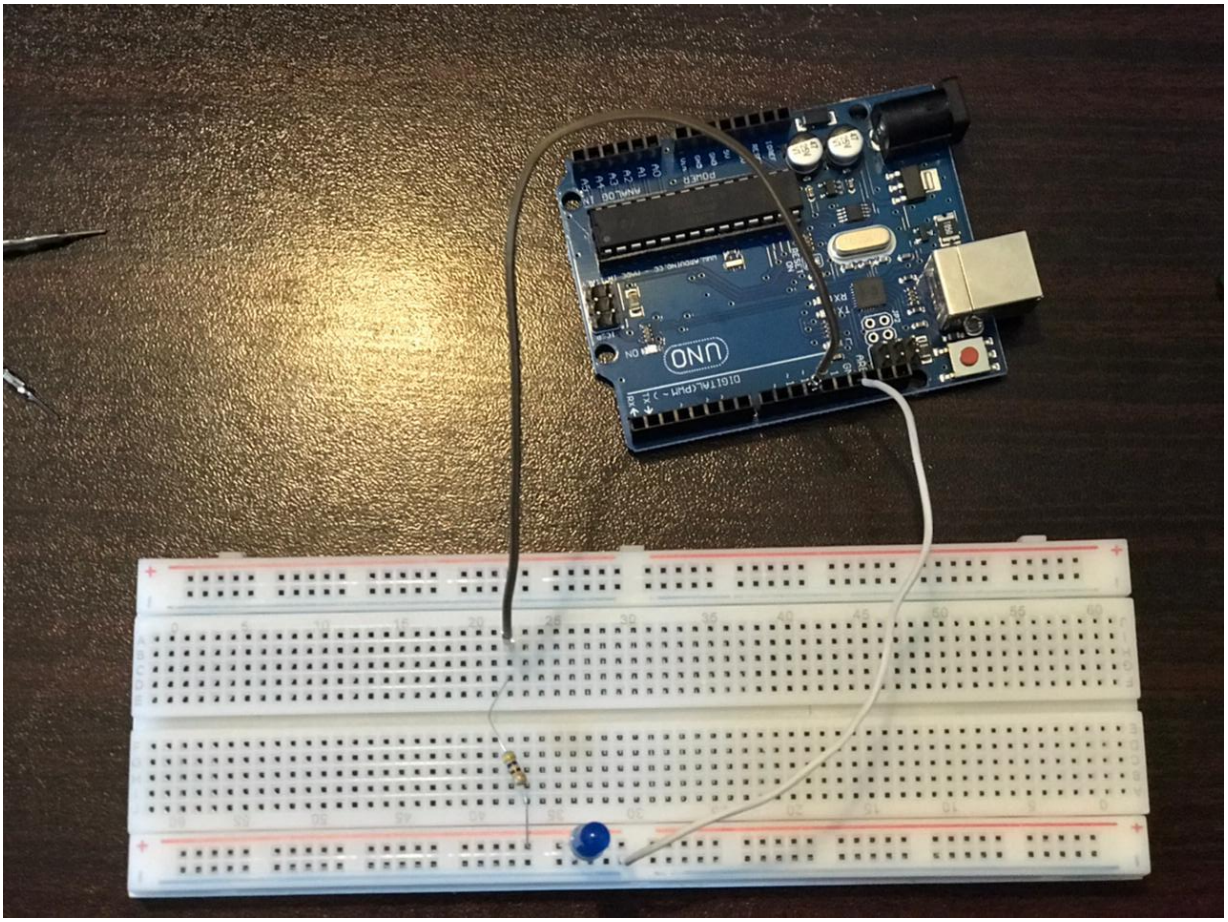
Lab02

Group Members Name & Reg #:	**Muhammad Haris Irfan** **(FA18-BCE-090)**
Class	Microprocessor Systems and Interfacing CPE342 (**BCE-6B**)
Instructor's Name	Dr. Omer Ahmad

In Lab Tasks

Task 1:

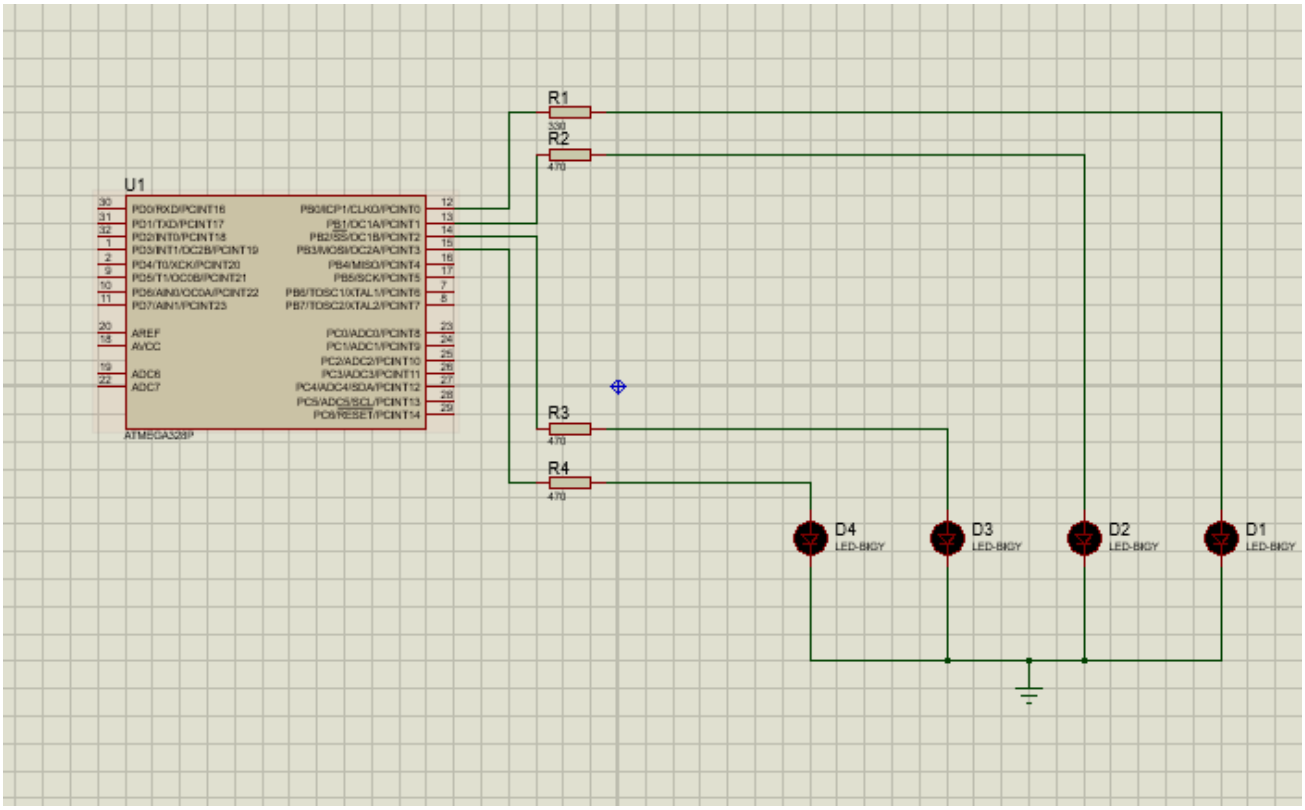
In this task we made our circuit on the breadboard, we used pin 11 and GND of Arduino Uni, the picture is given below.



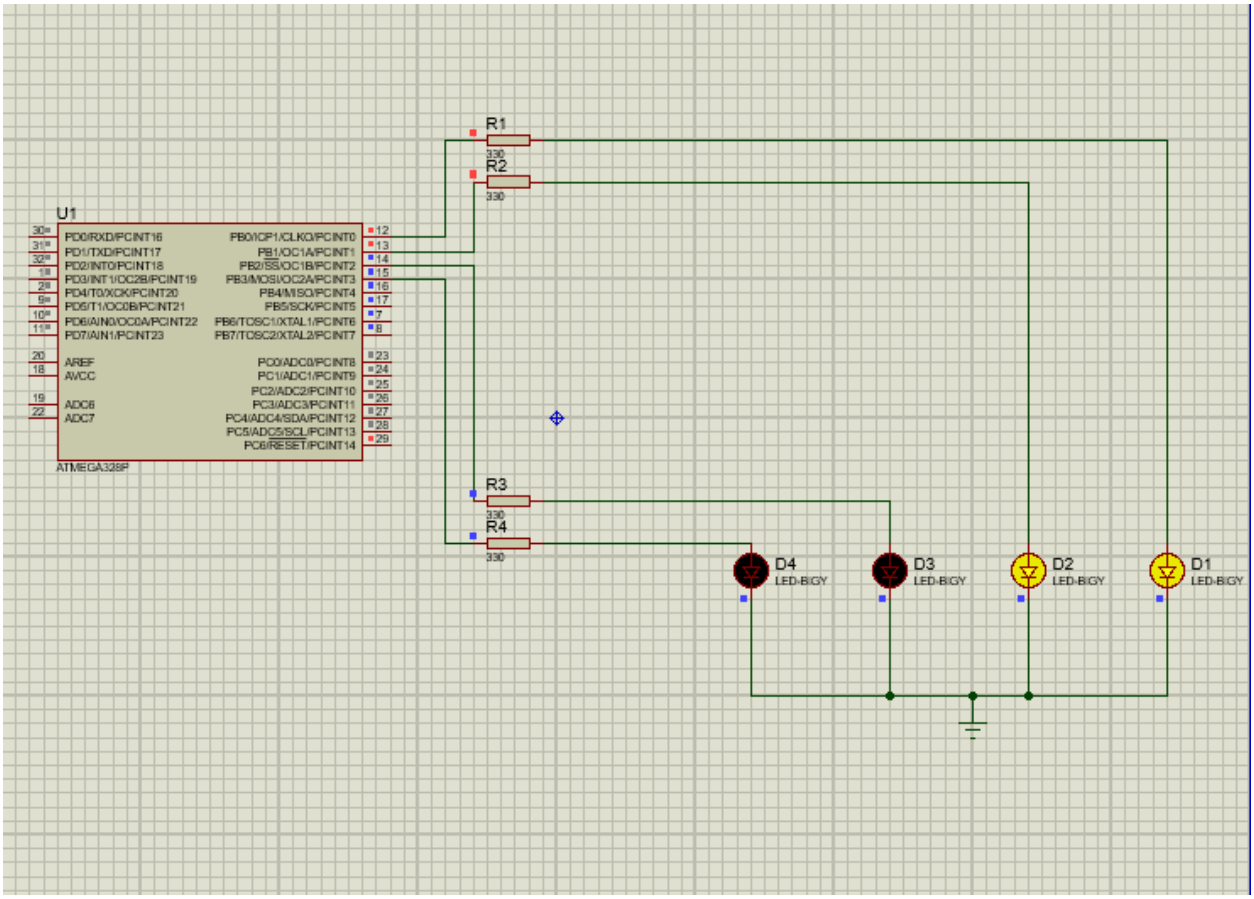
Task:2

In this task we built the provided Assembly code using Microchip Studio and generated a hex file, which we added on our atmega328p in proteus simulation.

The simulation is shown below,



In simulation, four leds represented four-bits, and showed table of 3 from 3 till 30 in binary using the leds.

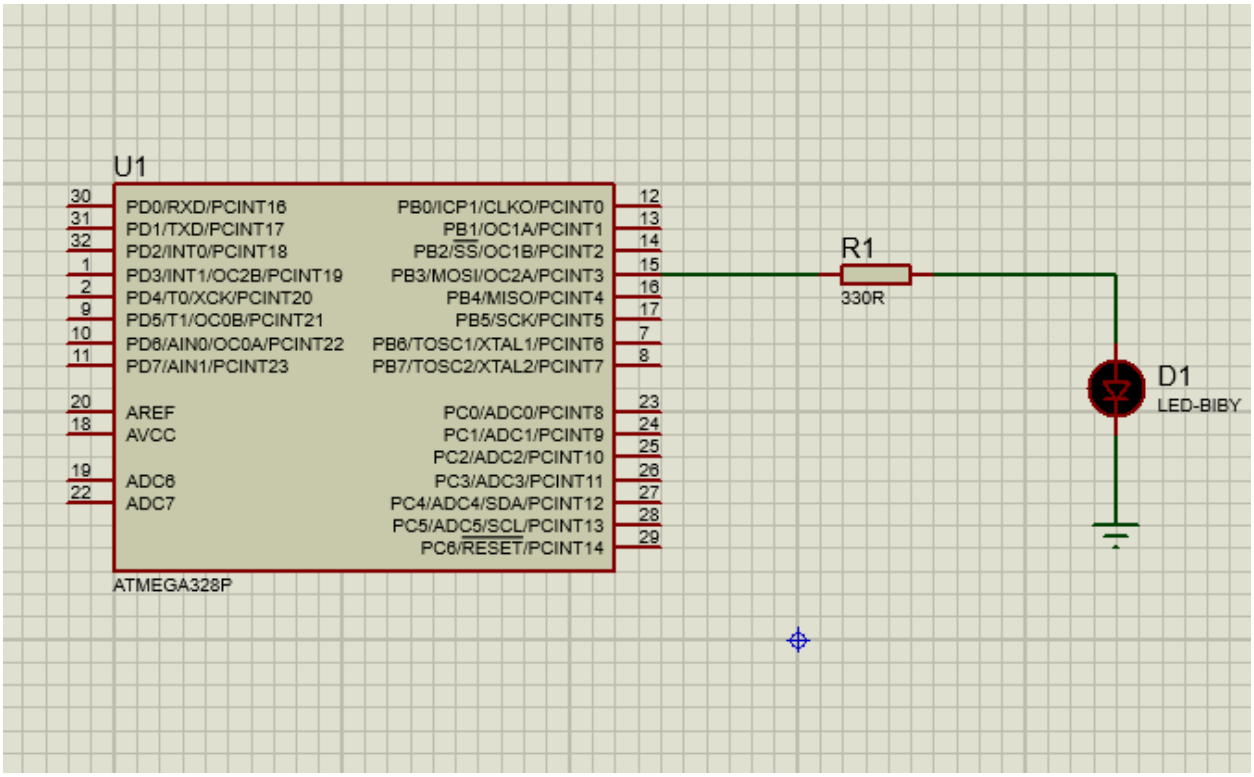


The picture above shows, decimal 3 represented in binary using LEDs

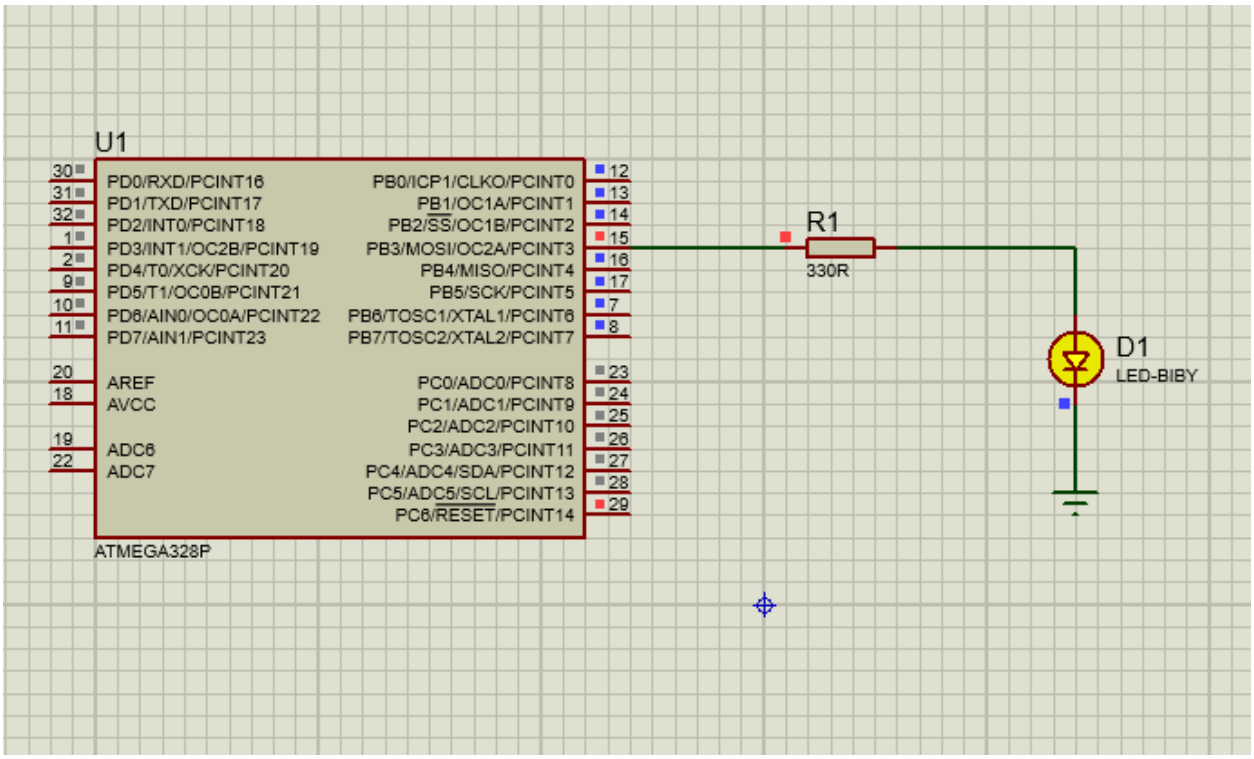
Task:3

In this task we built the provided C-code using Microchip Studio and generated a hex file, which we added on our atmega328p in proteus simulation.

The simulation is shown below,



In this code, our led keeps turning on and off, with a delay that we have added between the two commands.



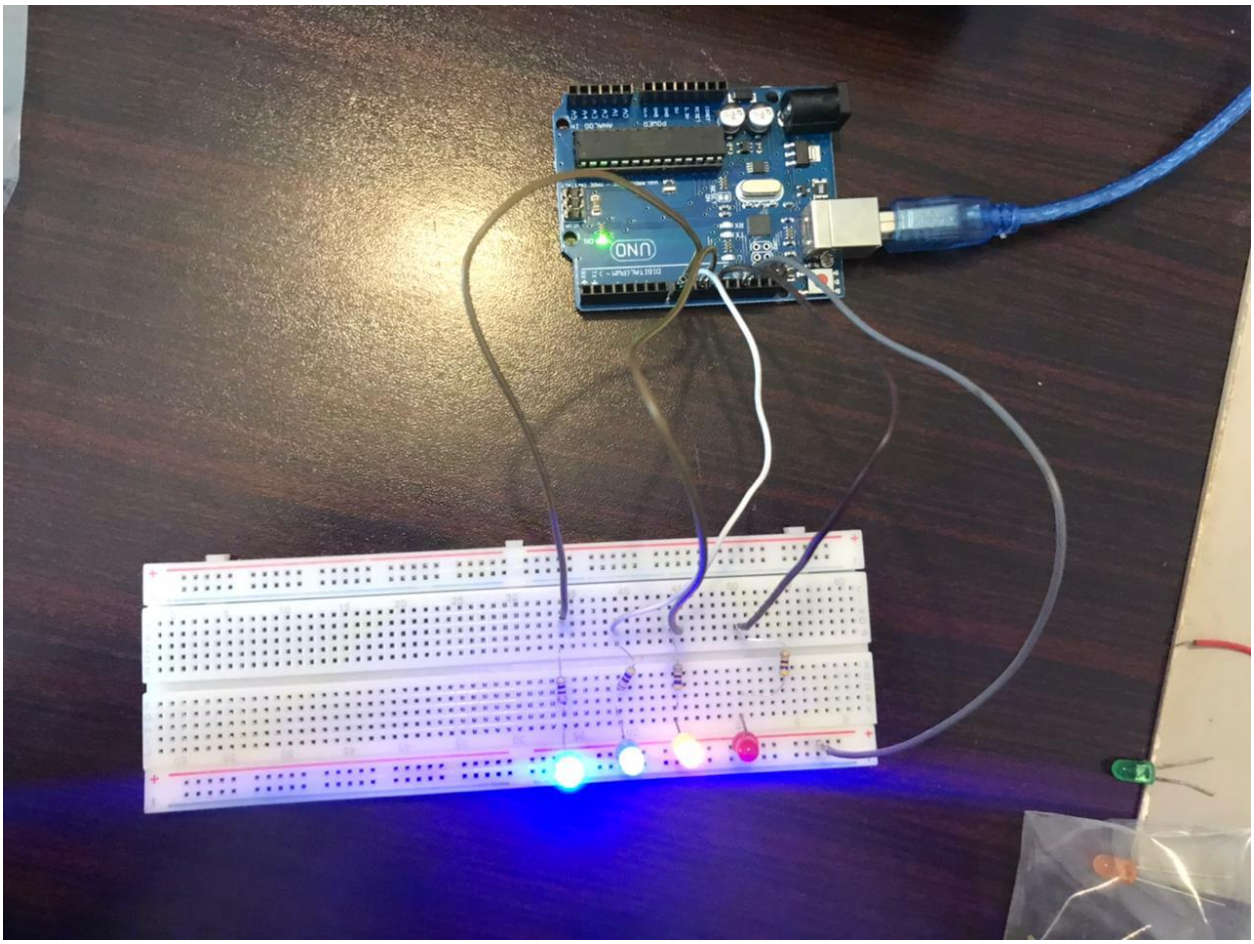
The above simulation shows when the led is on.

Task:4

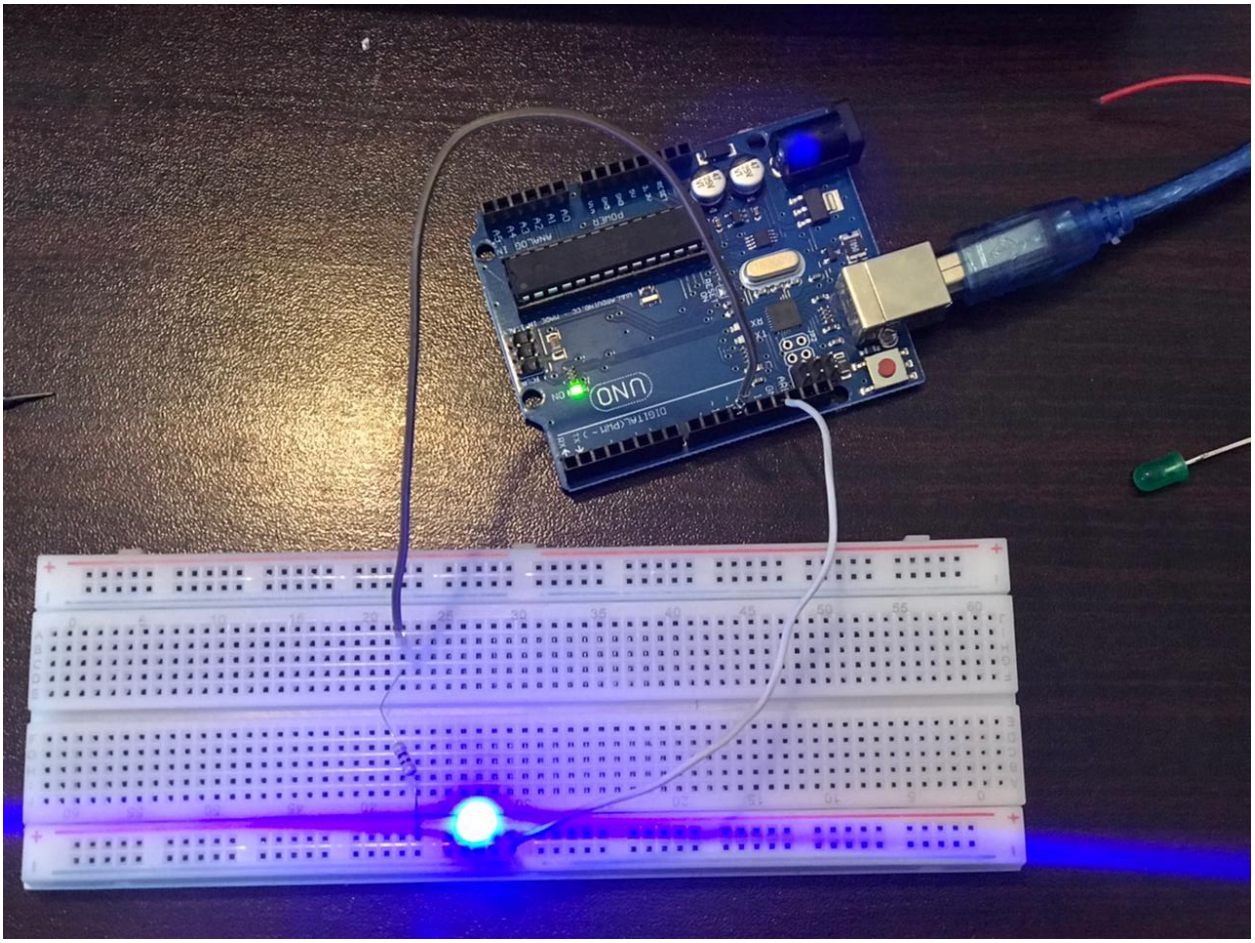
In this task we Uploaded the provided Assembly and C-code using Microchip Studio to Arduino Uno,

Both the Circuits are shown below,

- Task-2 Circuit with Arduino



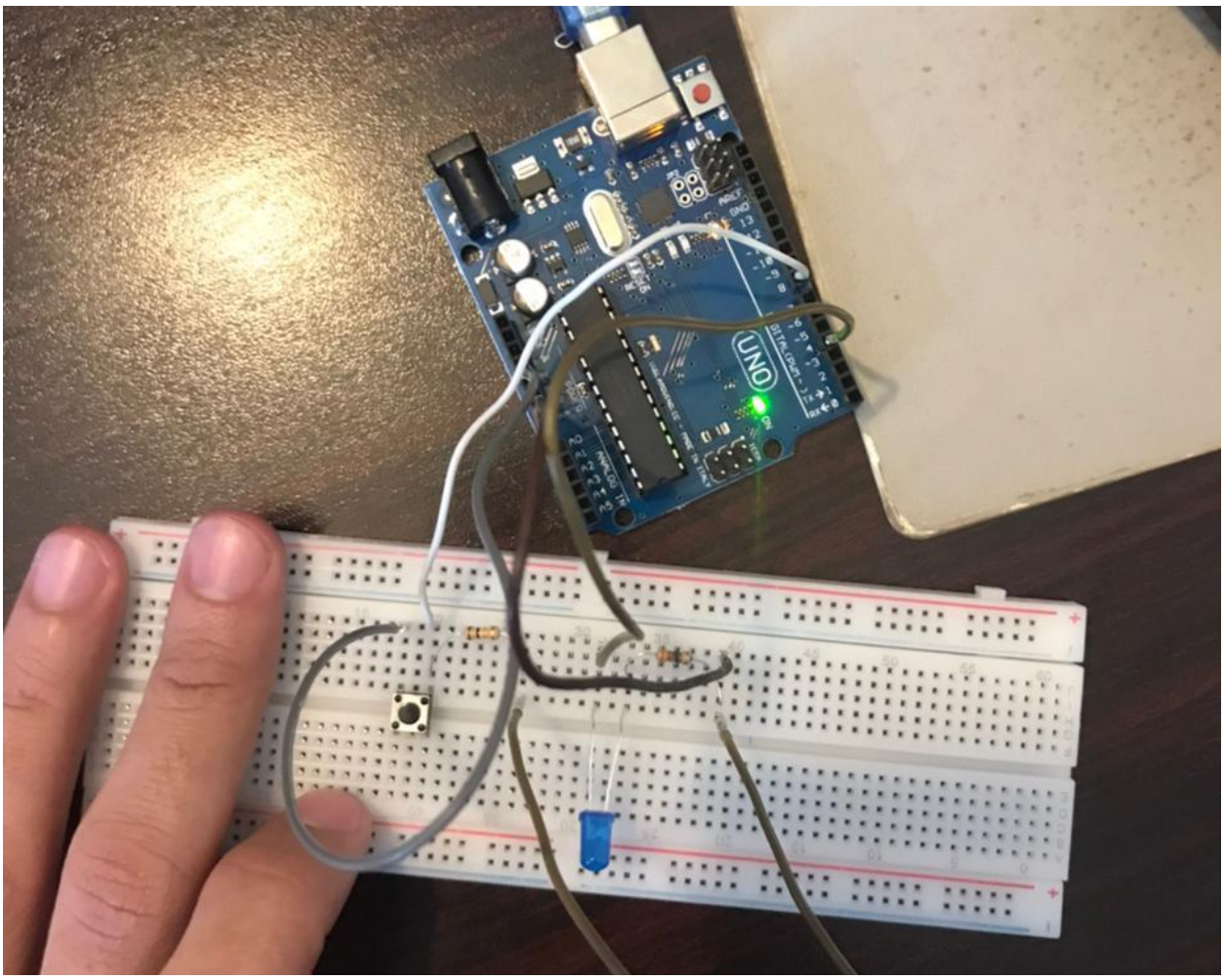
- Task-3 Circuit with Arduino



Post Lab Tasks

Task 1:

The Circuit is shown below,



Task 2:

I uploaded a code written in Arduino which works, I was not successful in editing the given Inlab code to my requirement.

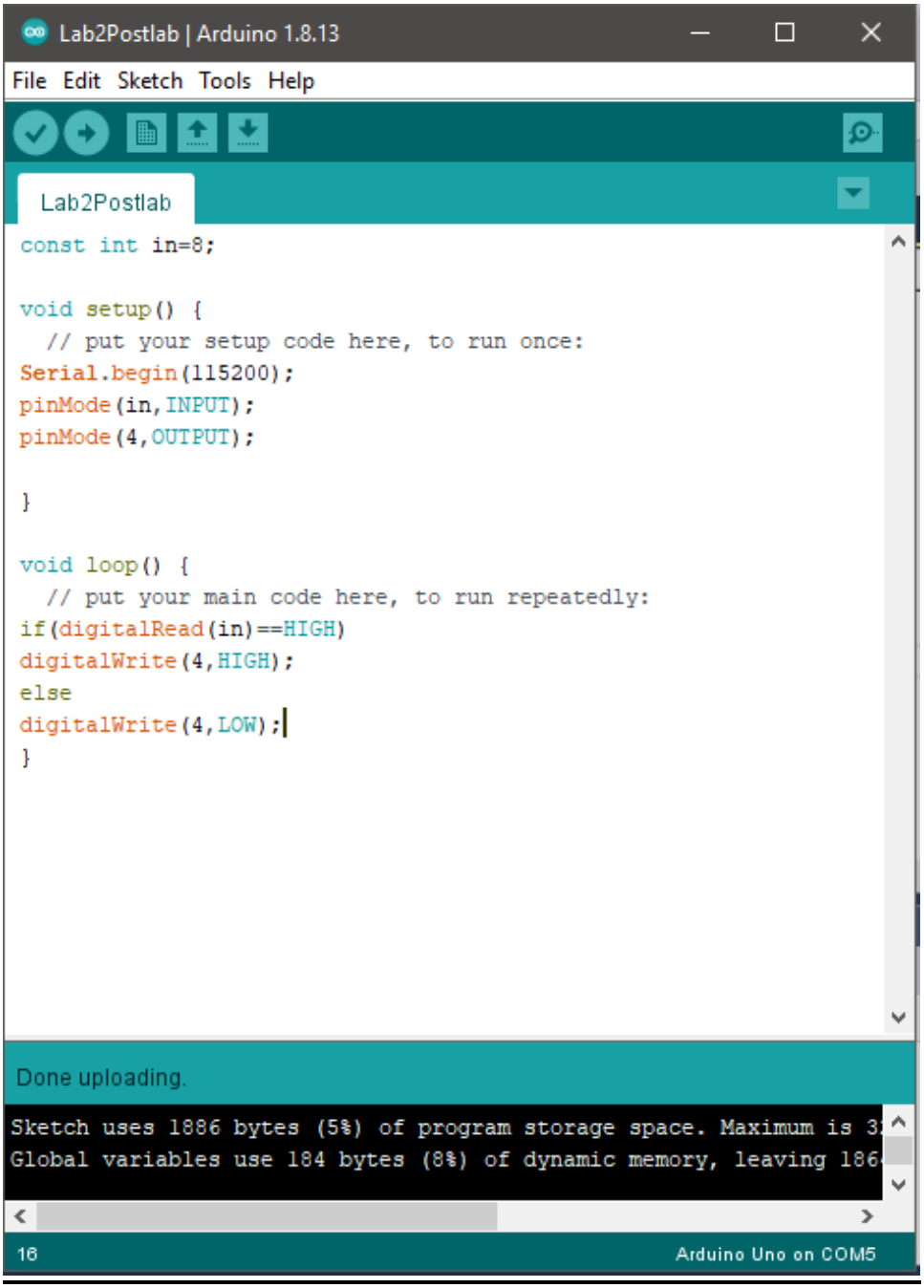


Image below shows circuit when the button is pressed and led is ON.