**Name – Parag Gattani**

Program No. – 15

Program Title – RGB LED

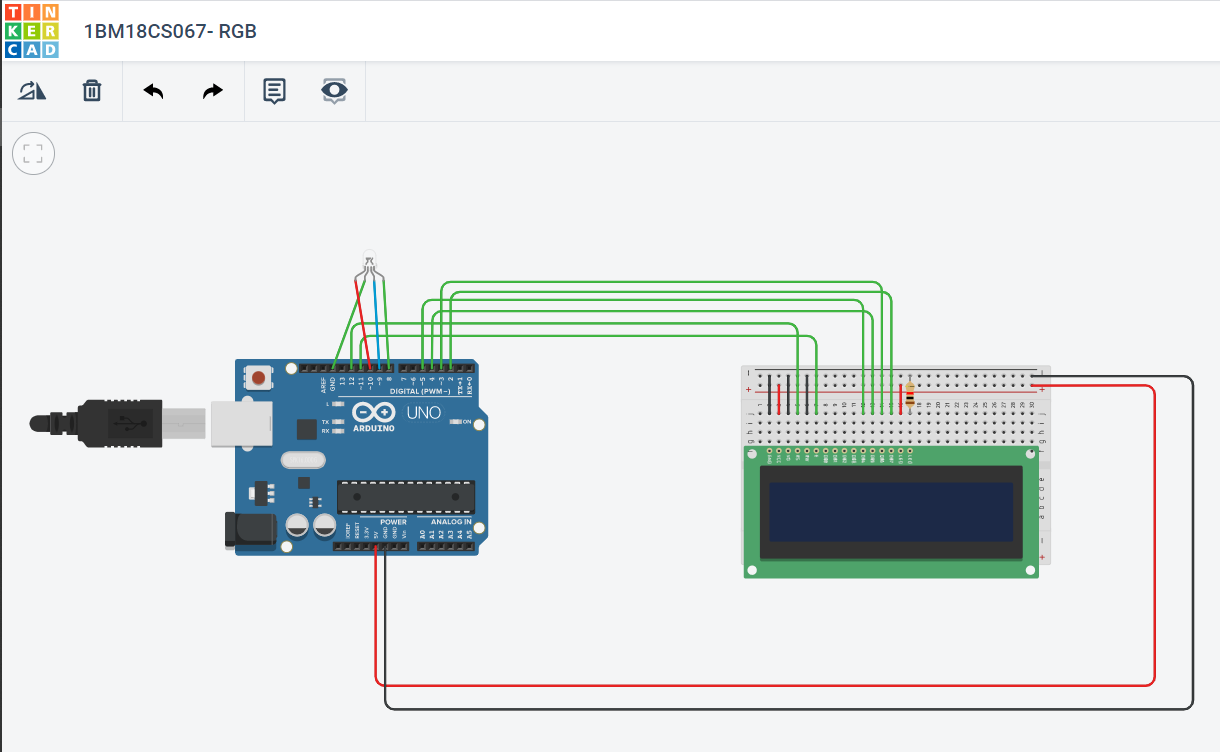
**AIM**

Design a smart irrigation system (Potentiometer, Servo motor shaft).

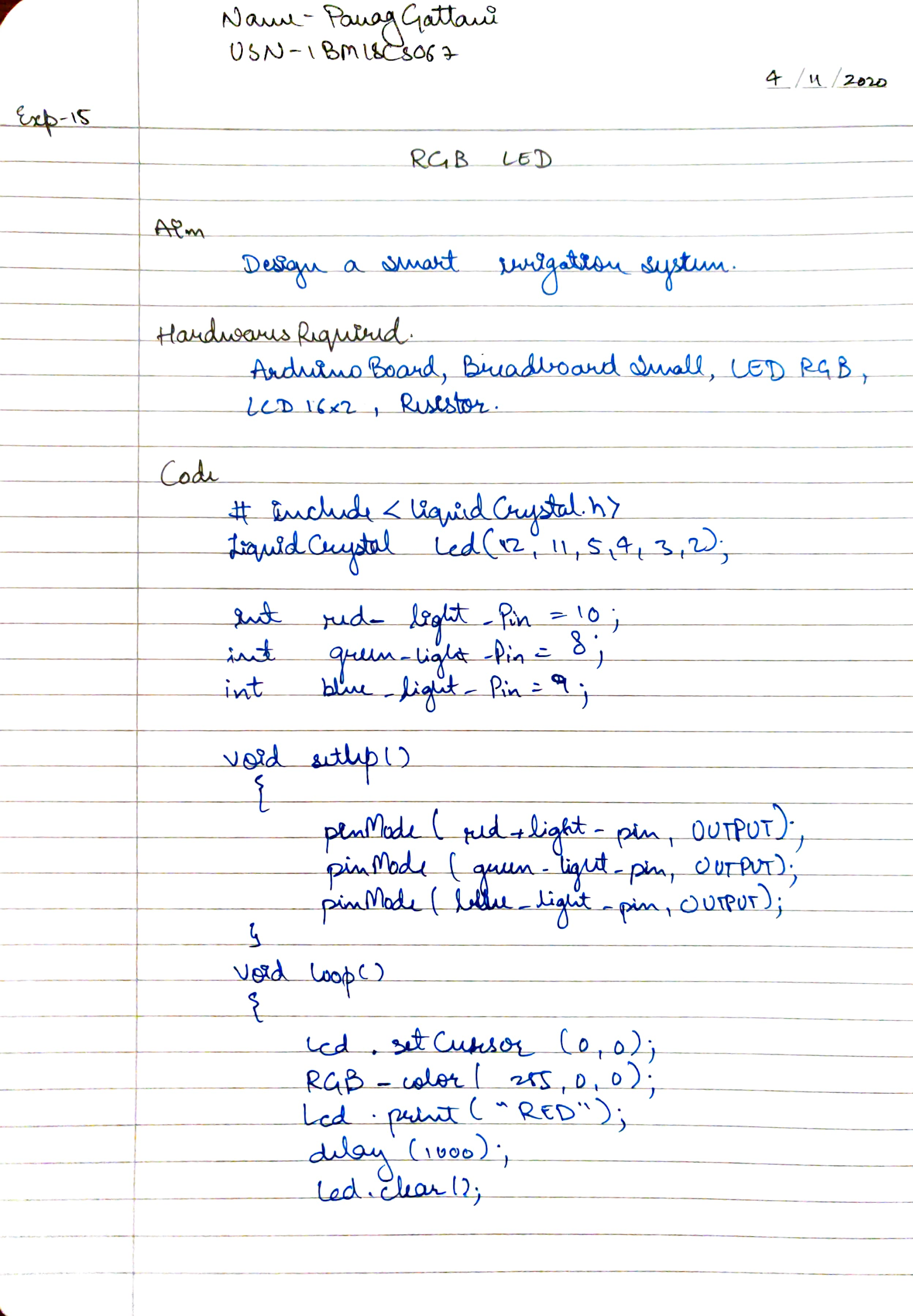
**HARDWARES REQUIRED**

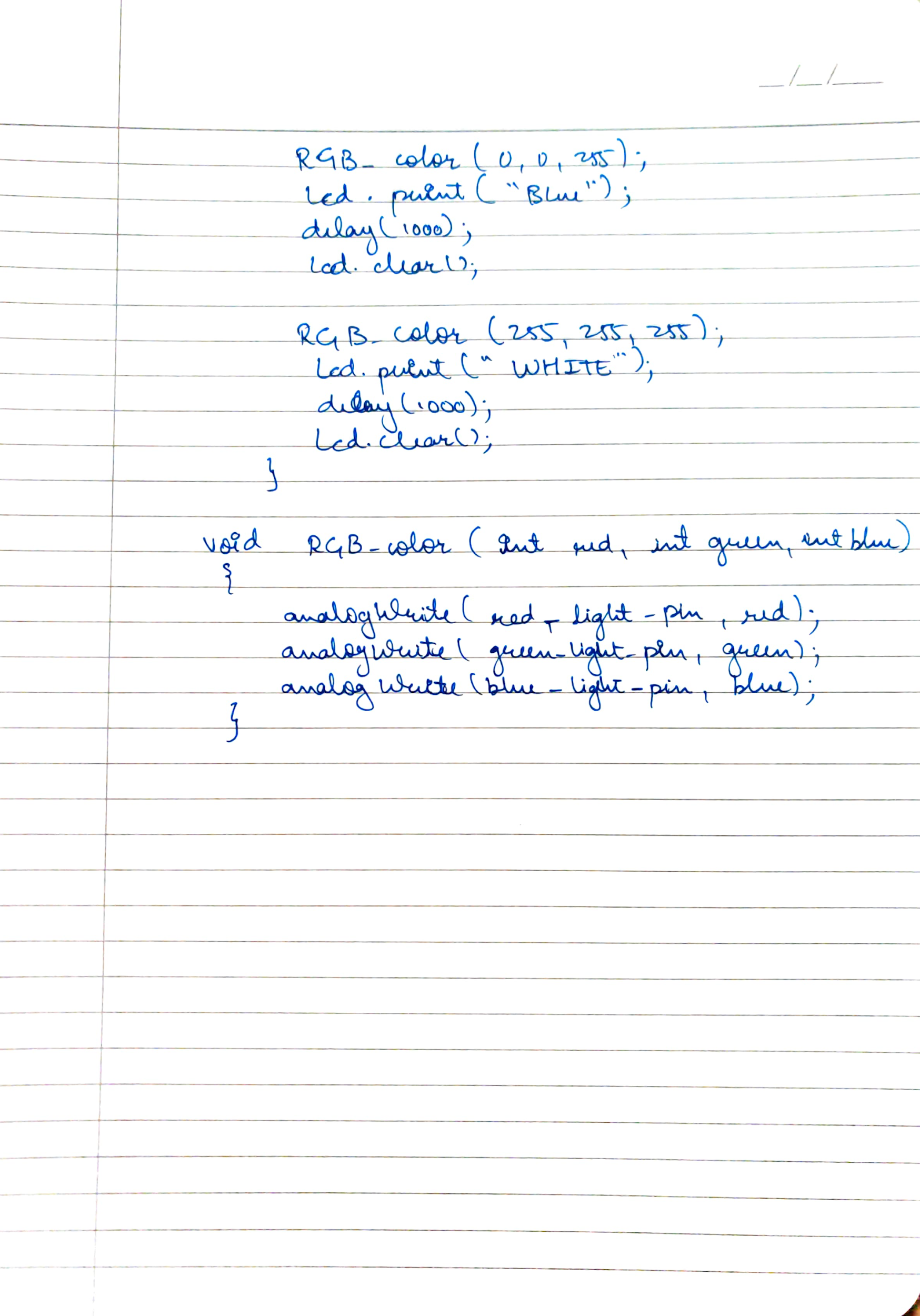
* Arduino Board, Breadboard Small
* LED RGB, LCD 16x2, Resistor

**CIRCUIT DIAGRAM**

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**WRITE-UP**

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**CODE**

#include <LiquidCrystal.h>

LiquidCrystal lcd(12, 11, 5, 4, 3, 2);

//Parameters: (rs, enable, d4, d5, d6, d7)

int red\_light\_pin= 10;

int green\_light\_pin = 8;

int blue\_light\_pin = 9;

void setup() {

pinMode(red\_light\_pin, OUTPUT);

pinMode(green\_light\_pin, OUTPUT);

pinMode(blue\_light\_pin, OUTPUT);

}

void loop() {

lcd.setCursor(0,0);

RGB\_color(255, 0, 0); // Red

lcd.print("RED");

delay(1000);

lcd.clear();

RGB\_color(0, 255, 0); // Green

lcd.print("GREEN");

delay(1000);

lcd.clear();

RGB\_color(0, 0, 255); // Blue

lcd.print("BLUE");

delay(1000);

lcd.clear();

RGB\_color(255, 255, 255); // White

lcd.print("WHITE");

delay(1000);

lcd.clear();

}

void RGB\_color(int red\_light\_value, int green\_light\_value, int blue\_light\_value)

{

analogWrite(red\_light\_pin, red\_light\_value);

analogWrite(green\_light\_pin, green\_light\_value);

analogWrite(blue\_light\_pin, blue\_light\_value);

}

**OUTPUT**

Designed a smart irrigation system (Potentiometer, Servo motor shaft).