IOT LAB - 5th Sem

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Program No : 15

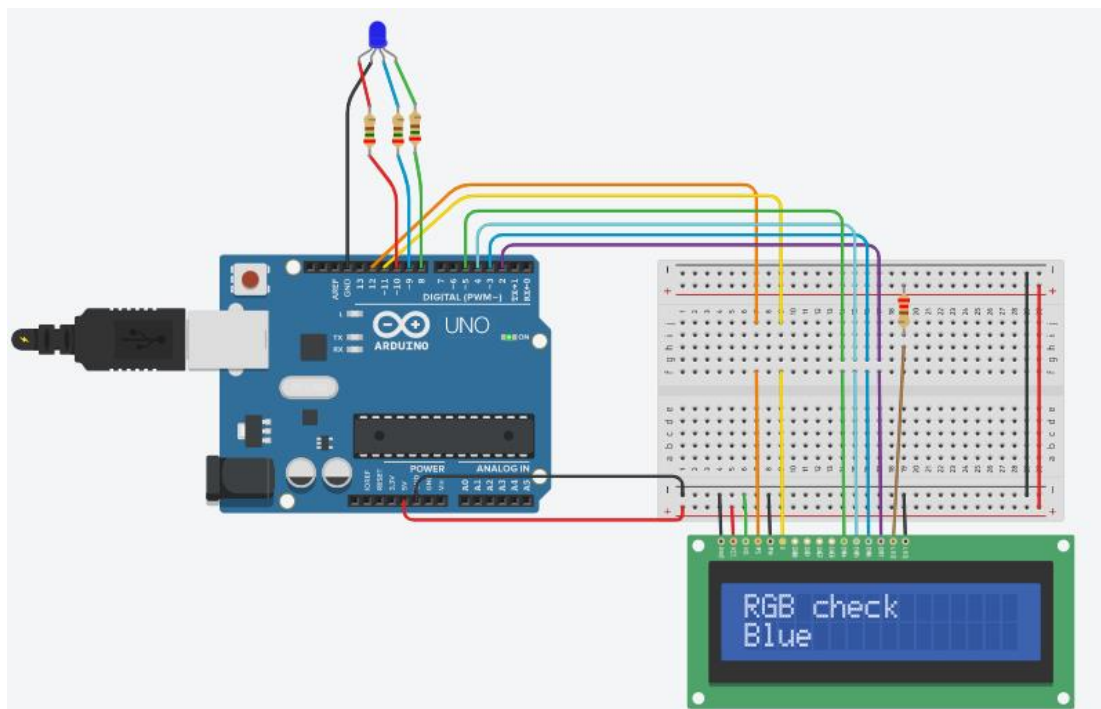**Program Title : RGB LED interfacing with LCD panel**

Aim :

To switch colours using a RGB led and display the current colour in the LCD display using an Arduino Uno board.

Hardware Required :

- Arduino Uno Board
- RGB LED
- LCD Panel
- 4 X 240 Ohm Resistor

Circuit Diagram :

Written Code :

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```
#include <liquidCrystal.h>
LiquidCrystal lcd (12,11,5,4,3,2);


void setup ()
{   pinMode (8, OUTPUT);
    pinMode (9, OUTPUT);
    pinMode (10, OUTPUT);


    lcd.begin (16,2);
    lcd.print (" RGB - check");
}

void loop ()
{   lcd.setCursor (0,1);
    lcd.print ("Red ");
    digitalWrite (10, HIGH);
    digitalWrite (9, Low);
    digitalWrite (8, Low);
    delay (500);
    lcd.setCursor (0,1);
    lcd.print ("Blue ");
    digitalWrite (10, Low);
    digitalWrite (9, HIGH);
    digitalWrite (8, Low);
    delay (500);
    lcd.setCursor (0,1);
    lcd.print (" Green ");
    digitalWrite (10, Low);
    digitalWrite (9, Low)
    digitalWrite (8, HIGH);
    delay (500);
}
```

Observation /Output :

The LED turns from Red – Blue – Green and the name of the current colour is displayed on the LCD.