## Lab 7: Program 15

Date: 04/11/20

Experiment: RGB LED and LCD

Aim: To demonstrate a RGB LED and LCD display

## Hardware:

- RGB LED
- LCD
- Arduino Uno
- Resistors

```
Source Code:
#include <LiquidCrystal.h>
```

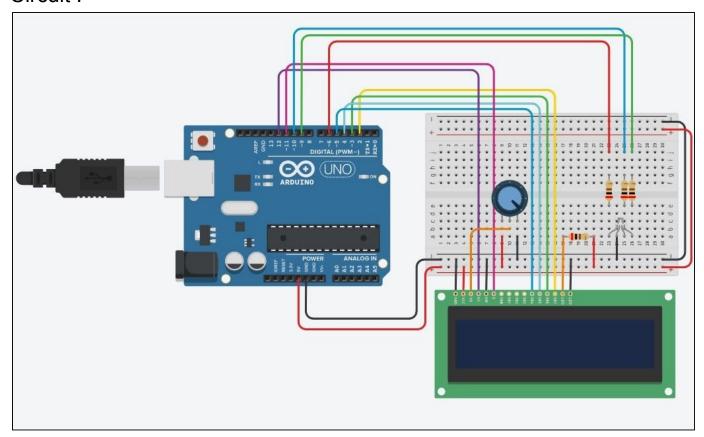
```
int red = 6;
int blue = 10;
int green = 9;
LiquidCrystal lcd(12, 11, 5, 4, 3, 2);
void redc()
{
 lcd.setCursor(0, 0);
 analogWrite(red, 255);
 analogWrite(blue, 0);
 analogWrite(green, 0);
 lcd.print("RED ");
}
void bluec()
{
 lcd.setCursor(0, 0);
 analogWrite(red, 0);
 analogWrite(blue, 255);
 analogWrite(green, 0);
 lcd.print("BLUE ");
}
```

```
void greenc()
 lcd.setCursor(0, 0);
 analogWrite(red, 0);
 analogWrite(blue, 0);
 analogWrite(green, 255);
 lcd.print("GREEN");
}
void setup()
{
 pinMode(red,OUTPUT);
 lcd.begin(16, 2);
 pinMode(blue,OUTPUT);
 pinMode(green,OUTPUT);
void loop()
  redc();
  delay(1000);
  bluec();
  delay(1000);
  greenc();
  delay(1000);
}
```

## Observation:

The colour of the LED is displayed on the LCD.

## Circuit:



Write Up:

```
Source Code
#include < Liquid Ceystal. h>
 int red = 6;
 int blue = 10;
 int green = 9;
 Lignid Crystal led (12,11, 5, 4, 3, 2);
 void redo ()
 I ded . Set Cursor (0,0);
    andlog write ( sed, 255');
   onalog Write (blue, 0);
   conalog White ( green, 0);
   lcd. print ("RED ");
 void bluec()
    led. Set Cursor (0,0);
    analog Write (red, 0);
    analog White ( blue, 255))
    analog Write (green, 0);
    lco. print ("BLUE ");
 void greenc()
of led. set Cursor (0,0);
   analog write ( red , 0 );
   analog Write ( blue, 0 );
   analog Write ( green, 255);
   led print ("GREEN");
```

```
road Setup ()
 pin Mode ( Red, OUTPUT);
led. begin ( 16, 2);
pin Mode ( blue, OUTPUT);
  pin Mode (green, OUTPUT);
void loop ()
   red(1);
   delay (1000);
    delay (1000);
green c();
delay (1000);
```