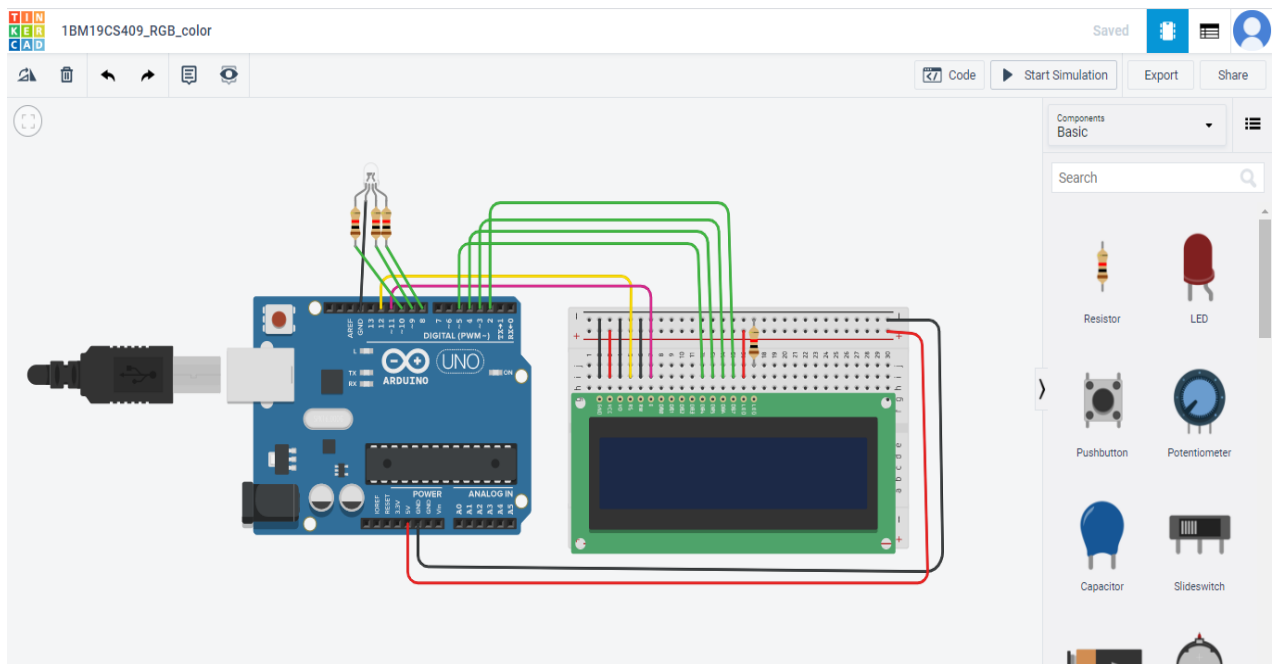# Program no : 15

Program Title : RBG colour display

Aim : To display RGB colour with LCD display.

Hardware Required

- Arduino Board
- Wires
- Breadboard
- Resistor
- RGB led
- LCD display

Circuit Diagram :

Code:

Sumalata

Ajay

IBM19CS409

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Program - 15

RGB color display

```
#include <LiquidCrystal.h>
LiquidCrystal lcd (12, 11, 5, 4, 3, 2);
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);
    lcd.Print("RED");
    delay(1000);
    lcd.clear();
```

```
RGB_color (0, 255, 0);
lcd. Print ("GREEN");
delay (1000);
lcd. clear();
RGB_color (0, 0, 255);
lcd. Print ("BLUE");
delay (1000);
lcd. clear();
RGB_color (255, 255, 255);
lcd. Print ("WHITE");
delay (1000);
lcd. clear();
}
void RGB_color(int red_light_value,
int green_light_value, int blue_light_value)
{
analog write (red_light_pin, red_light_value);
analogwrite(green_light_pin, green_light_value);
analogwrite(blue_light_pin, blue_light_value);
}
```

#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);
}
```

Observation /Output :