Shaan Subbaiah B C - 1BM18CS096

Program no – 14

Program Title – RGB led interfacing with LCD panel

Aim

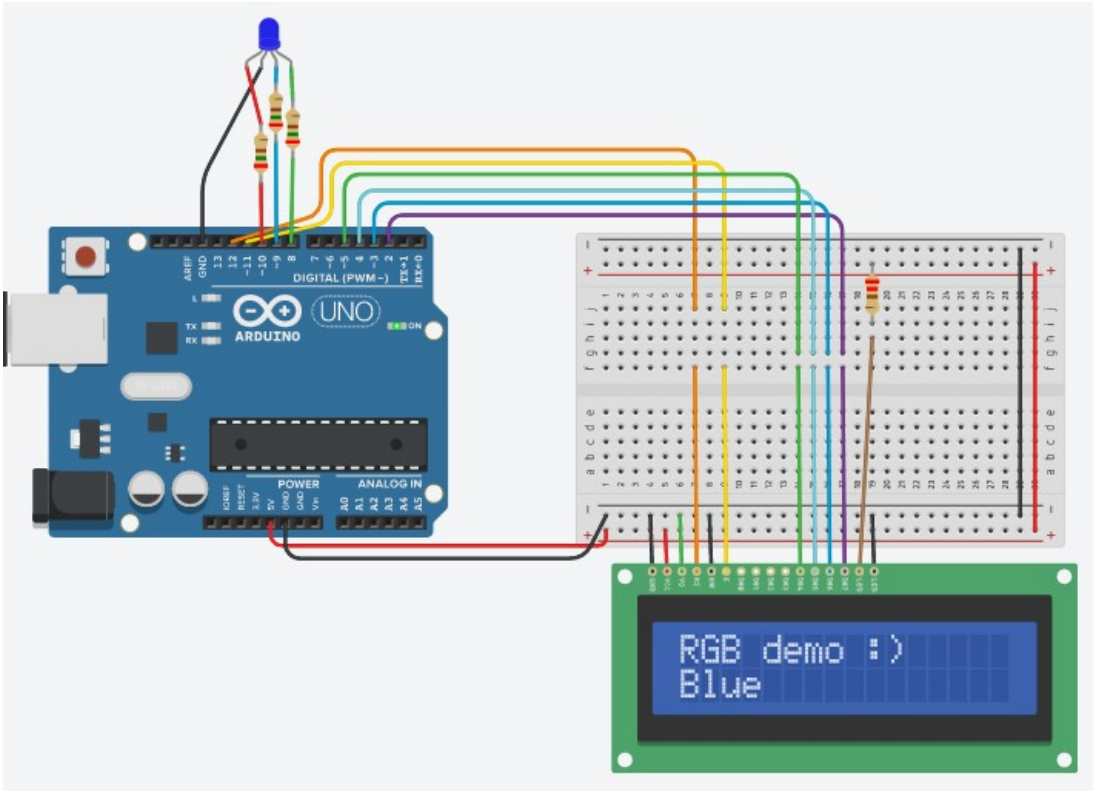
Switch colors using the rgb led, display the current color in the lcd display.

Hardware Required

- Arduino Board
- Tilt Sensor
- RGB LED
- LCD Panel
- Mini Breadboard
- 4 x 240 Ohm Resistor

LED color switches from Red -> Green -> Blue and name of the current color is displayed on the LCD panel

Circuit Diagram



Code:

```
#include <LiquidCrystal.h>

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

void setup() {
 pinMode(8, OUTPUT);
 pinMode(9, OUTPUT);LED color switches from Red -> Green -> Blue and name of the current color is
displayed on the LCD panel
 pinMode(10, OUTPUT);LED color switches from Red -> Green -> Blue and name of the current color is
displayed on the LCD panel

 lcd.begin(16, 2);
 lcd.print("RGB demo :)");
}

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);
}
```

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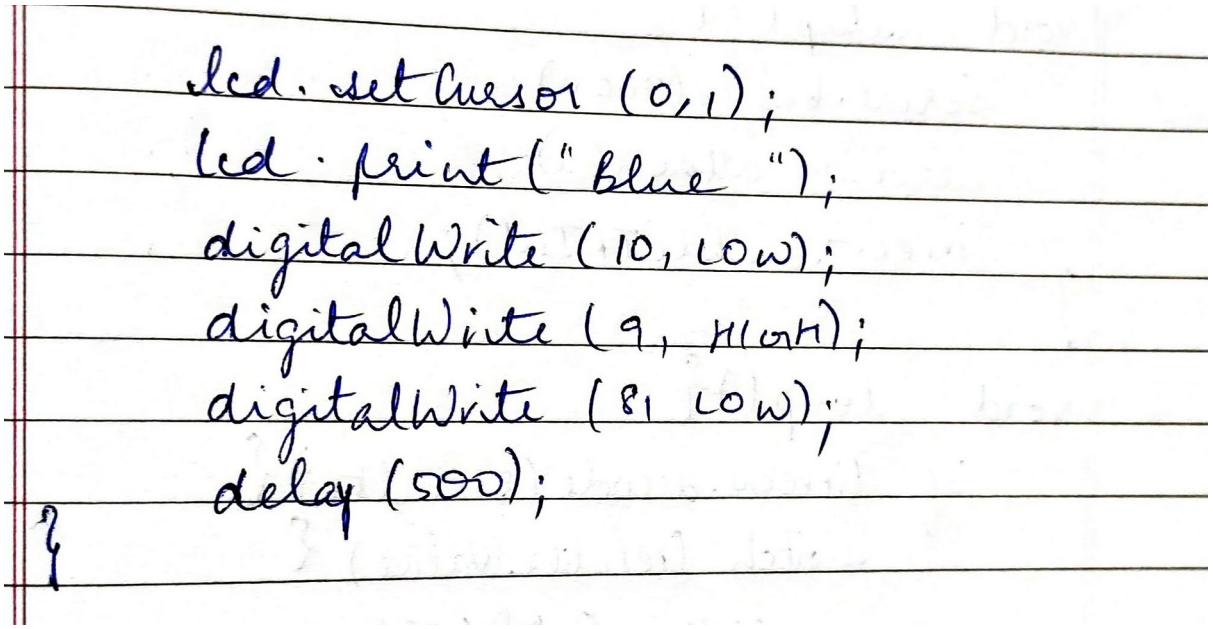
```
#include <LiquidCrystal.h>
LiquidCrystal lcd(12, 11, 5, 4, 3, 2);

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

    lcd.begin(16, 2);
    lcd.print("RGB Demo :)");
}

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("GReen ");
    digitalWrite(10, LOW);
    digitalWrite(9, LOW);
    digitalWrite(8, HIGH);
    delay(500);
```



Observation /Output

LED color switches from Red -> Green -> Blue and name of the current color is displayed on the LCD panel