### Name – Parag Gattani

Program No. – 15

Program Title – RGB LED

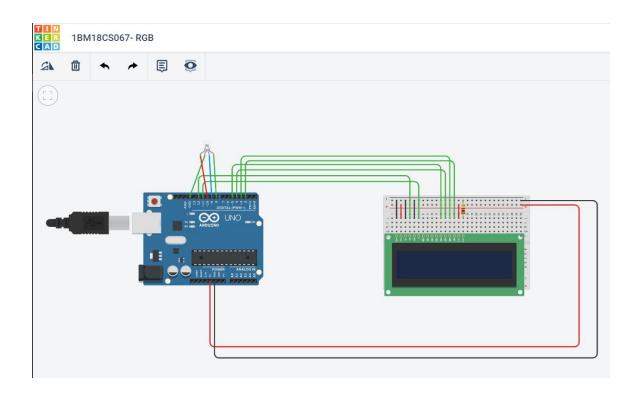
#### **AIM**

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

#### HARDWARES REQUIRED

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

#### **CIRCUIT DIAGRAM**



## **WRITE-UP**

	Name-Panag Gattani
	USN-18MUSCSOF7
e L . C	4/4/2020
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	RGB LED
	APm
	Design a smort jurgation system.
	Hardwarus Rightend.
	Andrino Board, Biradroard Small, LED RGB,
	LCD 16x2, Russtor.
	Code
	# include < liquid Crystal. h> Liquid Crystal Led (12, 11, 5, 4, 3, 2);
	Tiqued Cuystal (ed (12, 11, 5, 4, 3, 2);
	ent rud- leght - Pin = 10;
	int green-light-Pin = 8;
	ent rud- leght - Pin = 10; int green-light - Pin = 8; int blue - light - Pin = 9;
	void situpi)
	penMode ( jud + light - pin, OUTPUT); pinMode ( grun - light - pin, OUTPUT); pinMode ( lelle _ light - pin, OUTPUT);
	pintible ( guen - light - pin, OUTPUT).
	i pintibae ( talie - sin, 001001);
	void hope)
	8
	cd . set Cursor (0,0);
	(cd. set Cupsor (0,0); RGB - color (215,0,0); Lcd. print ("RED"); delay (1000); Led. clear ();
_	Lcd · print ( "RED");
	dulay (1000);
	led. clear 12;
Q	

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RGB\_ color (0,0,25); led. pulut ("Blue"); delay (1000); lod. clear(); RGB. color (255, 255, 255); led. publit ("WHITE"); delay (1000); led. clear(); void RGB-color ( ant jud, int green, ant blue)

#### **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();
}
      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).