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//FLOATSENSOR
int Floatsensor = 4 ;
int buttonState = 1;
int NEWbuttonState =0;

//RELAY //INPUT b=OFF, a=ON
const int ledPin = 22; //PUMP
int ledState = LOW;
unsigned long previousMillis = 0;
const long ontime = 3000;
const long offtime = 15000;
char sendeInhalt = ' ';
int immer = 10;

//LED DRIVER
//INPUT: c=ON, d=OFF
#include "RGBdriver.h"
int CLK=14;
int DIO=27; //
RGBdriver Driver(CLK,DIO);

//TEMPERATURE SENSOR
#include "OneWire.h"
#include "DallasTemperature.h"
const int oneWireBus = 0;
OneWire oneWire(oneWireBus);
DallasTemperature sensors(&oneWire);
float temperatureC = sensors.getTempCByIndex(0);
float temperatureF = sensors.getTempFByIndex(0);

void setup() {
    Serial.begin(9600);

    //FLOATSENSOR
    pinMode(Floatsensor, INPUT_PULLUP);

    buttonState = digitalRead(Floatsensor);

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    if(buttonState==HIGH){Serial.println("Waterlevel is high");
    if(buttonState==LOW){Serial.println("Waterlevel is low");}

//RELAY
pinMode(ledPin, OUTPUT);
digitalWrite(ledPin,HIGH); //Pump off

//TEMPERATURE SENSOR
sensors.begin();
sensors.requestTemperatures();
Serial.print(temperatureC);
Serial.println("°C");
Serial.print(temperatureF);
Serial.println("°F");

//LED DRIVER
Driver.begin(); // begin
Driver.SetColor(108,17,70);
Driver.end();
}

void loop() {

//FLOATSENSOR
NEWbuttonState = digitalRead(Floatsensor);
if(NEWbuttonState!=buttonState)
{
    if (NEWbuttonState == LOW){
        Serial.println("Water level is low");}
    if (NEWbuttonState == HIGH){
        Serial.println("Water level is high");}
    buttonState = NEWbuttonState;
}

//RELAY PUMP
if (Serial.available()){
    sendeInhalt = Serial.read();
    if(sendeInhalt == 'a')

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{
    Serial.println("Pump on");
    while(immer==10)
    {
        unsigned long currentMillis=millis();          #
        if (currentMillis - previousMillis>= offtime and
ledState==HIGH)
        {
            previousMillis =currentMillis;
            ledState=LOW;
            digitalWrite(ledPin, ledState);
        }
        if (currentMillis - previousMillis>=ontime and
ledState==LOW)
        {
            previousMillis =currentMillis;
            ledState=HIGH;
            digitalWrite(ledPin, ledState);
        }
        sendeInhalt = ' ';

        if(Serial.available())
        {
            sendeInhalt = Serial.read();
            if (sendeInhalt == 'b')
            {
                //if input:"b", Pump turn off
                digitalWrite (ledPin, HIGH);
                Serial.println("Pump OFF");
                sendeInhalt = ' ';
                break;
            }
            else if (sendeInhalt == 'c')
            {
                //if input:"c", LED turn on
                Serial.println("LED on");
                Driver.begin();
                Driver.SetColor(108,17,70);
            }
        }
    }
}

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        Driver.end();
        sendeInhalt = ' ';
        continue;
    }
    else if (sendeInhalt == 'd')
    {
        //if input:"d", LED turn off
        Serial.println("LED off");
        Driver.begin();
        Driver.SetColor(0,0,0);
        Driver.end();
        sendeInhalt = ' ';
        continue;
    }
}

    sensors.requestTemperatures();
    float newtempC = sensors.getTempCByIndex(0);
    if (newtempC != temperatureC)
    {
        temperatureC = newtempC;
        Serial.print(temperatureC);
        Serial.println("°C");
    }
}
}

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if (sendeInhalt == 'b')
{
    //if input:"b", Pump turn off
    digitalWrite (ledPin, HIGH);
    Serial.println("Pump off");
    sendeInhalt = ' ';
}

if (sendeInhalt == 'c')
{
    //if input:"c", LED turn on
    Serial.println("LED on");
}

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    Driver.begin(); // begin
    Driver.SetColor(108,17,70);
    Driver.end();
    sendeInhalt = ' ';
}
if (sendeInhalt == 'd')
{
    //if input:"d", LED turn off
    Serial.println("LED off");
    Driver.begin(); // begin
    Driver.SetColor(0,0,0);
    Driver.end();
    sendeInhalt = ' ';
}
}

//TEMPERATURE SENSOR
    sensors.requestTemperatures();
    float newtempC = sensors.getTempCByIndex(0);
    if (newtempC != temperatureC)
    {
        temperatureC = newtempC;
        Serial.print(temperatureC);
        Serial.println("°C");
    }
}

```