

```

// We are going to include these two libraries in our code

// Ce code est le code fonctionnel que l'on avait utilisé dans le projet.

#include <OneWire.h>
#include <DallasTemperature.h>
#include <LiquidCrystal.h> //Import the LCD library
LiquidCrystal lcd(12, 11, 5, 4, 3, 2); /*Initialize the LCD and tell it which
pins is to be used for communicating*/

#define contra 9 //Define the pin that controls the contrast of the screen
#define bri 10 //Define the pin the controls the brightness of the screen
//Both pins are PWM so we can analogWrite to them and have them output a variable
value

const int SENSOR_PIN = 13; // the temperature sensor is connected to this pin
OneWire oneWire(SENSOR_PIN); // setup a oneWire instance
DallasTemperature sensors(&oneWire); // pass oneWire to DallasTemperature library
float tempCelsius; // temperature in Celsius
const int motor = 6;// Chlorine Pump

void setup() {

    lcd.begin(16, 2); //Tell the LCD that it is a 16x2 LCD
    pinMode(contra, OUTPUT); //set pin 9 to OUTPUT
    pinMode(bri, OUTPUT); //Set pin 10 to OUTPUT
    //pinMode-ing OUTPUT makes the specified pin output power
    digitalWrite(contra, LOW); /*outputs no power to the contrast pin.
    // this lets you see the words*/
    analogWrite(bri, 100); //Outputs full power to the screen brightness LED

    pinMode(motor, OUTPUT); //sets the digital pin as output
    Serial.begin(9600);
}

void loop() {
    sensors.requestTemperatures(); // send the command to get
    temperatures
    tempCelsius = sensors.getTempCByIndex(0);
    lcd.print("Temperature:");
    lcd.setCursor(0,1);
}

```

```
lcd.print(tempCelsius);  
lcd.print("°C");  
  
delay(1000);  
digitalWrite(contra,LOW);  
lcd.setCursor(0,0);  
  
digitalWrite(motor,HIGH); //turns the LED on  
delay(5000);  
digitalWrite(motor,LOW);  
delay(30000);  
  
}
```