```cpp
#include <Wire.h>
#include <LiquidCrystal_I2C.h>
#include <Adafruit_Sensor.h>
#include <DHT.h>

#define DHTPIN 2 // Define the pin for the DHT sensor
#define DHTTYPE DHT21 // Change to DHT22 or DHT11 as needed

DHT dht(DHTPIN, DHTTYPE); // Initialize the DHT sensor

const int soilMoisturePin = A0; // Define the pin for the soil moisture sensor
const int ledPin = 10; // Define the pin for the LED
const int ldrPin = A2;
const int ldrStatus = 0;

LiquidCrystal_I2C lcd(0x27, 16, 2); // Address 0x27 for a 16x2 I2C LCD display

const int standardHumidity = 50; // Set your standard humidity value
const int standardTemperature = 30; // Set your standard temperature value
const int standardSoilMoisture = 300; // Set your standard soil moisture value

void setup() {
  Serial.begin(9600);
  lcd.init();
  lcd.backlight();
  dht.begin();
  pinMode(ledPin, OUTPUT);
  pinMode(ldrPin, INPUT);
  pinMode(7, OUTPUT);
```

```
  }

void loop() {
  float humidity = dht.readHumidity();
  float temperature = dht.readTemperature();

  int soilMoisture = analogRead(soilMoisturePin);
  int ldrStatus = analogRead(ldrPin);

  Serial.println(ldrStatus, DEC);
  // Serial.println("LDR value", ldrStatus);

  lcd.clear();
  lcd.setCursor(0, 0);
  lcd.print("Humidity: ");
  lcd.print(humidity);
  lcd.print("%");

  lcd.setCursor(0, 1);
  lcd.print("Temp: ");
  lcd.print(temperature);
  lcd.print("C");

  lcd.setCursor(0, 2);
  lcd.print("soilMoisture: ");
  lcd.print(soilMoisture);

  Serial.print("Humidity: ");
  Serial.print(humidity);
```

```cpp
  Serial.print("%, Temperature: ");

  Serial.print(temperature);

  Serial.println("C");


  Serial.print("Soil Moisture: ");

  Serial.println(soilMoisture);


  if (ldrStatus <= 80) {

   digitalWrite(ledPin, HIGH); // Turn LED on

  } else {

   digitalWrite(ledPin, LOW); // Turn LED off

  }


  if (soilMoisture > standardSoilMoisture) {

   lcd.setCursor(0, 3); // Adjust the line to display the message

   lcd.print("Water the plant!");

   Serial.println("Water the plant!");

  }

  if(soilMoisture > standardSoilMoisture){

   digitalWrite(7, LOW);

    Serial.println("should be on");

  }else{

   digitalWrite(7, HIGH);

    Serial.println("should be off");

  }


  delay(2000); // Adjust the delay as needed

}
```