

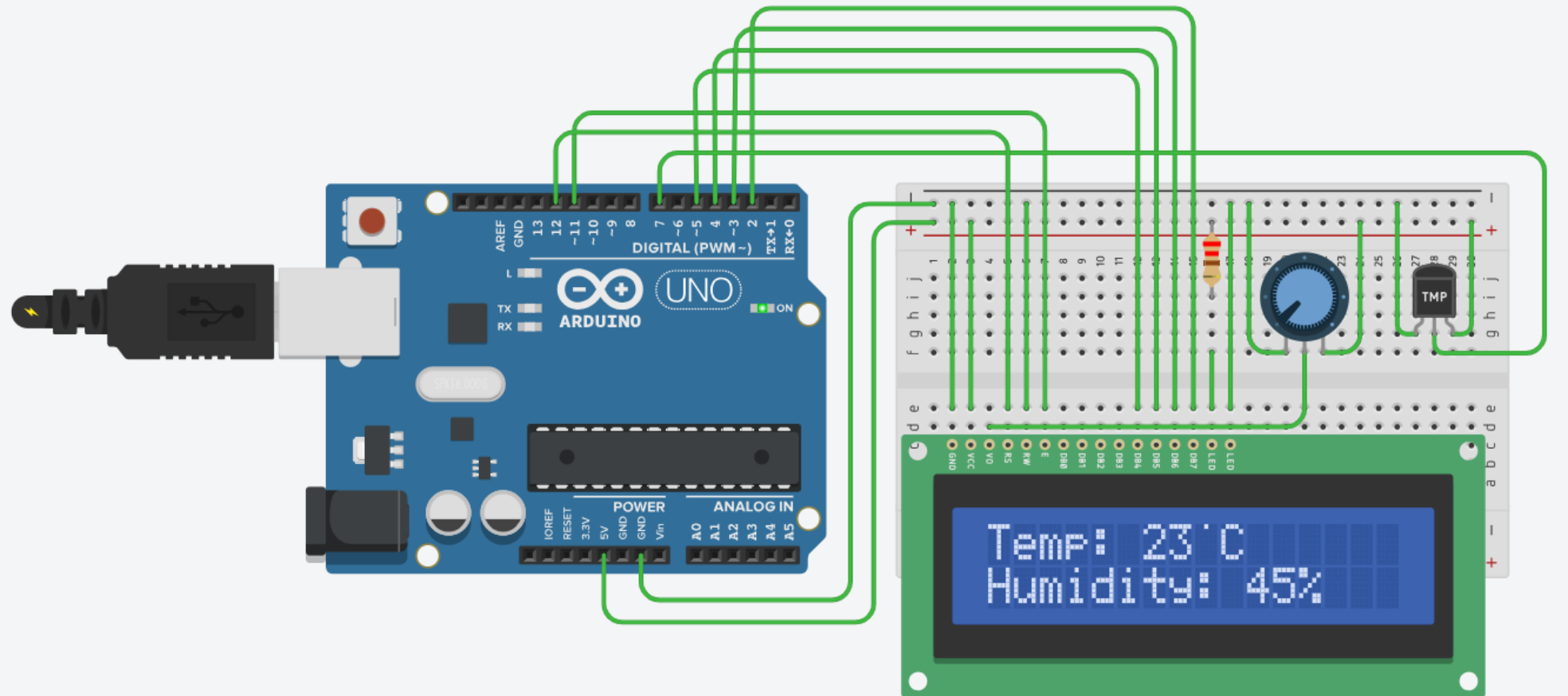
Making) Digital thermometer

# Digital thermometer

- You will need a DHT11 Humidity and temperature sensor, a 16x2 LCD display (and a potentiometer and some resistors).
- You are making a digital thermometer.
  - The current temperature and humidity is shown at the LCD display.
  - The display should be updated every second, and you should be able to control the brightness of the LCD using the potentiometer.

# 준비물

- 아두이노 UNO 보드 1개
- TMP 센서 1개
- 점퍼선
- 가변저항 1개
- LCD 패드 1개
- $220\Omega$  저항 1개



# 실습 코드

```
1  #include <dht.h>
2  #include <LiquidCrystal.h>
3
4  LiquidCrystal lcd(12, 11, 5, 4, 3, 2);
5
6  dht DHT;
7
8  #define DHT11_PIN 7
9
10 void setup(){
11     lcd.begin(16, 2);
12     Serial.begin(9600);
13     lcd.print("hello");
14 }
15
16 void loop()
17 {
18     lcd.setCursor(0,0);
19     lcd.print("hello");
20
21     int chk = DHT.read11(DHT11_PIN);
22
23     lcd.setCursor(0,0);
24     lcd.print("Temp: ");
25     lcd.print(DHT.temperature);
26     lcd.print((char)223);
27     lcd.print("C");
28     lcd.setCursor(0,1);
29     lcd.print("Humidity: ");
30     lcd.print(DHT.humidity);
31     lcd.print("%");
32     delay(1000);
33
34     Serial.print("Temperature = ");
35     Serial.println(DHT.temperature);
36     Serial.print("Humidity = ");
37     Serial.println(DHT.humidity);
38     delay(1000);
39
40 }
```