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  Description automatically generated

I used the temperature and humidity sensor DHT11 from the Arduino kit along with the 16x2 LCD. In theory the temperature and humidity sensor transmits this data which is then displayed on the LCD, but I was unable to get it to work correctly.

* I had to wire up the LCD, the temperature and humidity sensor, and a potentiometer to handle the screen brightness of the LCD.
  + What tasks is being demonstrated by the sensor you chose?
    - The sensor is reading the air temperature and humidity level.
  + Is the output chosen the best option for the task? Could another output be a better option? Why?
    - I personally think the output is the best option. I would much rather see the readout on an LCD than the serial console
  + Where would this kind of sensor be found in an enterprise solution?
    - The first thing that comes to mind is the greenhouse controllers I used to install when I build industrial greenhouses.
* A link to resources used to complete the lab.
  + <https://github.com/adafruit/DHT-sensor-library>
  + <https://www.circuitbasics.com/wp-content/uploads/2015/10/Arduino-DHT11-Tutorial-3-Pin-DHT11-Wiring-Diagram-768x391.png>
  + <https://www.circuitbasics.com/wp-content/uploads/2015/03/Arduino-LCD.png>
  + <https://www.circuitbasics.com/how-to-set-up-an-lcd-display-on-an-arduino/>
  + <https://www.circuitbasics.com/how-to-set-up-the-dht11-humidity-sensor-on-an-arduino/>

**FINISHED CODE:**

#include <DHT.h>

#include <DHT\_U.h>

#include <LiquidCrystal.h>

LiquidCrystal lcd(12, 11, 5, 4, 3, 2);

#define DHT11\_PIN 7

#define DHTTYPE DHT11

DHT dht(DHT11\_PIN, DHTTYPE, 1);

void setup(){

  dht.begin();

  lcd.begin(16, 2);

}

void loop(){

  int chk = dht.read(DHT11\_PIN);

  int tmp = dht.readTemperature(true, true);

  int hum = dht.readHumidity(true);

  lcd.setCursor(0,0);

  lcd.print("Temp: ");

  lcd.print(tmp);

  lcd.print((char)223);

  lcd.print("F");

  lcd.setCursor(0,1);

  lcd.print("Humidity: ");

  lcd.print(hum);

  lcd.print("%");

  delay(1000);

}