**Weather Record Station**

**Material Requirement:**

1. DTH11 Humidity and Temperature Sensor
2. Arduino UNO
3. 16\*2 LCD display
4. I2C module
5. Connecting wires

**Code:**

#include <SimpleDHT.h>

#include <LiquidCrystal.h>

// Initialize humidity sensor.

const int pinDHT11 = 6;

SimpleDHT11 dht11;

// Initialize LCD

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

// Setup LCD and display startup message

void setup() {

// Display is two 16-char rows

lcd.begin(16, 2);

// Print a startup message

lcd.print("Mother's Pride");

delay(2000);

lcd.clear();

lcd.print("Weather Recordin");

delay(1000);

lcd.clear();

lcd.print("g Machine");

delay(2000);

lcd.clear();

}

// Display temp/humidity data until power-down

void loop() {

// Create variables for DHT sensor output.

byte temperature = 0;

byte humidity = 0;

// Read sensor data and store results

// in temperature/humidity variables

dht11.read(pinDHT11, &temperature, &humidity, NULL);

// Print first line to LCD

lcd.setCursor(0,0);

lcd.print("Temp: ");

lcd.print(round(temperature));

lcd.print("C / ");

lcd.print(round(temperature \* 1.8 + 32));

lcd.print("F "); // two extra spaces in case temps drop to single digits

// Print second line to LCD

lcd.setCursor(0,1);

lcd.print("Humidity: ");

lcd.print(humidity);

lcd.print("% "); // extra space in case humidity drops to single digit

// Delay 1 second because DHT11 sampling rate is 1HZ.

delay(1000);

}