

```
//setup  
//LCD :gnd-gnd , vcc-5v ,SDA-A4 , SLC-A5  
//DHT :1-3.3v , 2-7pin ,4-gnd
```

```
//Libraries
```

```
#include <DHT.h>;
```

```
#include <LiquidCrystal_I2C.h>
```

```
#include <Wire.h>
```

```
LiquidCrystal_I2C lcd(0x27,16,2);
```

```
//Constants
```

```
#define DHTPIN 7    // what pin we're connected to
```

```
#define DHTTYPE DHT22 // DHT 22
```

```
DHT dht(DHTPIN, DHTTYPE); //// Initialize DHT sensor for normal 16mhz Arduino
```

```
//Variables
```

```
int h; //Stores humidity value
```

```
int t; //Stores temperature value
```

```
void setup() {
```

```
    Serial.begin(9600);
```

```
    Serial.println("Temperature and Humidity Sensor Test");
```

```
    dht.begin();
```

```
    lcd.init(); //initialize the lcd
```

```
    lcd.backlight(); //open the backlight
```

```
}
```

```
void loop() {
```

```
    //Read data and store it to variables h (humidity) and t (temperature)
```

```
    // Reading temperature or humidity takes about 250 milliseconds!
```

```
h = dht.readHumidity();
```

```
t = dht.readTemperature();
```

```
//Print temp and humidity values to serial monitor
```

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

```
Serial.print(h);
```

```
Serial.print(" %, Temp: ");
```

```
Serial.print(t);
```

```
Serial.println(" ° Celsius");
```

```
// set the cursor to (0,0):
```

```
// print from 0 to 9:
```

```
lcd.setCursor(0, 0);
```

```
lcd.println("Temp & Humidity");
```

```
lcd.setCursor(0, 1);
```

```
lcd.print("T:");
```

```
lcd.print(t);
```

```
lcd.print("C");
```

```
lcd.setCursor(6, 1);
```

```
lcd.setCursor(9, 1);
```

```
lcd.print("H:");
```

```
lcd.print(h);
```

```
lcd.print("%");
```

```
delay(1000); //Delay 1 sec.
```

```
}
```

