

```

#include "DHT.h"
#include <Wire.h>
#include <LiquidCrystal_PCF8574.h>

LiquidCrystal_PCF8574 lcd(0x27); //initialize lcd address
#define DHTTYPE DHT11 // DHT 11

const int AirQPin = A0; //sensors pins
const int DHTPin = 2;
const int WaterPin = A2;
const int LightPin = A3;

int show;

DHT dht(DHTPin, DHTTYPE);

void setup() {
  // put your setup code here, to run once:
  dht.begin();
  int error;
  pinMode(WaterPin, INPUT); //initialize all sensor
pins
  pinMode(LightPin, INPUT);
  pinMode(AirQPin, INPUT);

  Serial.begin(74880); //define baud rate
  Serial.println("LCD...");
  Wire.begin();
  Wire.beginTransmission(0x27); //start i2c
communication
  error = Wire.endTransmission();
  if (error == 0) {
    Serial.println(": LCD found.");
  }
}

```

```

} else {
    Serial.println(": LCD not found.");
} // if

lcd.begin(16, 2);                // initialize the lcd
show = 0;

}

void loop() {

    float h = dht.readHumidity();    // Read humidity

    float t = dht.readTemperature(); // Read temperature

    //float f = dht.readTemperature(true);

    float water =analogRead(WaterPin); //Read water level
    float light =analogRead(LightPin); //Read light
intensity level
    float air =analogRead(AirQPin);    //Read air
quality level

    lcd.setBacklight(255);            //display sensor
data on LCD
    lcd.home(); lcd.clear();
    lcd.print("Humidity: ");
    lcd.print(h);
    lcd.print("%");
    lcd.setCursor(0,1);
    lcd.print("Temp: ");
    lcd.print(t);

```

```
lcd.print("*C");  
delay(1000);
```

```
lcd.home(); lcd.clear();  
lcd.print("Moisture: ");  
lcd.print(water);  
lcd.setCursor(0,1);  
lcd.print("Air: ");  
lcd.print(air);
```

```
delay(1000);
```

```
lcd.home(); lcd.clear();  
lcd.print("Light : ");  
lcd.print(light);  
lcd.print("lx");
```

```
delay(1000);
```

```
Serial.print(h);           //send sensor data to nodeMCU  
Serial.print(",");
```

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

```
Serial.print(water);  
Serial.print(",");
```

```
Serial.print(air);  
Serial.print(",");
```

```
Serial.println(light);
```

```
delay(1000);
```

```
}
```