

IED Main Project

APP Instruction

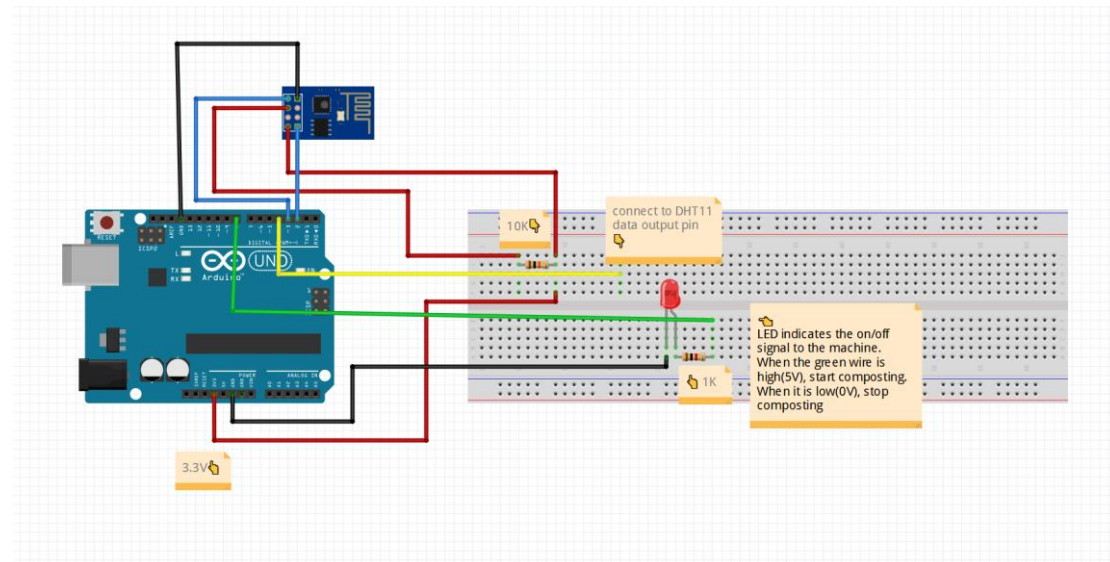
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Wire the circuit



Upload the code

Compile & upload the code to Arduino UNO board.

```
Arduino IDE - Main Window

Sketch: esp8266

#include <SoftwareSerial.h>
#include <Arduino-timer.h>
#include "DHT.h"

#define DHTPIN    // Digital pin connected to the DHT sensor
#define DHTTYPE DHT11 // DHT 11

DHT dht(DHTPIN, DHTTYPE);
SoftwareSerial wifiSerial(3, 2); // RX, TX for ESP8266

bool DEBUG = false; // show more logs
int responseTime = 10; // communication timeout

// Output ports
int startSignal = 8;

// Send temperature & humidity data to TCP every 2 second ( >= 2 seconds between measurements )
unsigned long delay_time = 2000; // millisecond
auto send_data_timer = timer_create_default();

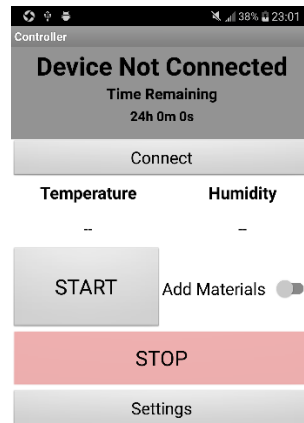
void setup() {
  // Open serial communications and wait for port to open esp266:
  Serial.begin(9600);
  while (!Serial) {
    ; // wait for serial port to connect. Needed for Leonardo only
  }
  Serial.println("Serial Setted");
  wifiSerial.begin(115200);
  while (!wifiSerial) {
    ; // wait for serial port to connect. Needed for Leonardo only
  }
  wifiSerial.println("wifiSerial Setted");
  // =====
  sendToWifi("AT+CHMODE=1", responseTime, DEBUG); // configure as access point
  sendToWifi("AT+CIFSR", responseTime, DEBUG); // get ip address
  sendToWifi("AT+CWMODE=1", responseTime, DEBUG); // configure for multiple connections
  sendToWifi("AT+CIPSERVER=1,80", responseTime, DEBUG); // turn on server on port 80
  // =====
}
```

Connect WiFi

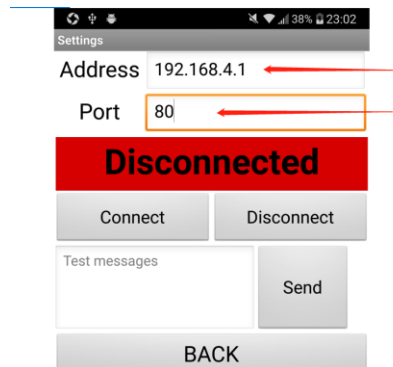
Once correctly wire the circuit and upload the code to Arduino UNO board, you should be able to see the WiFi of ESP8266-01 on your phone. Then, connect it.

Set IP address & Port

1. Open the app, you should see this page.



2. Click “Settings”
3. Enter IP Address(192.168.4.1) and Port(80),
DO NOT click “Connect” on this page



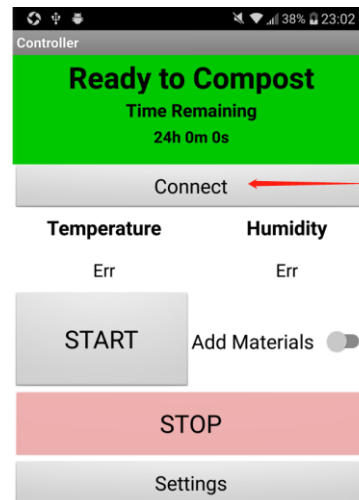
4. Click “back”

Control

1. Click “Connect” on this page

You should see “Ready to Compost” if the connection is successful.

Temperature and humidity should be displayed correctly.



2. Click “Start” the LED should be on
3. Switch “Add material” to on, the LED should be on
4. Switch “Add material” to off, the LED should be off
5. Click “STOP” the LED should be off

