

ESP8266 IOT Weather Station Kit User Manual

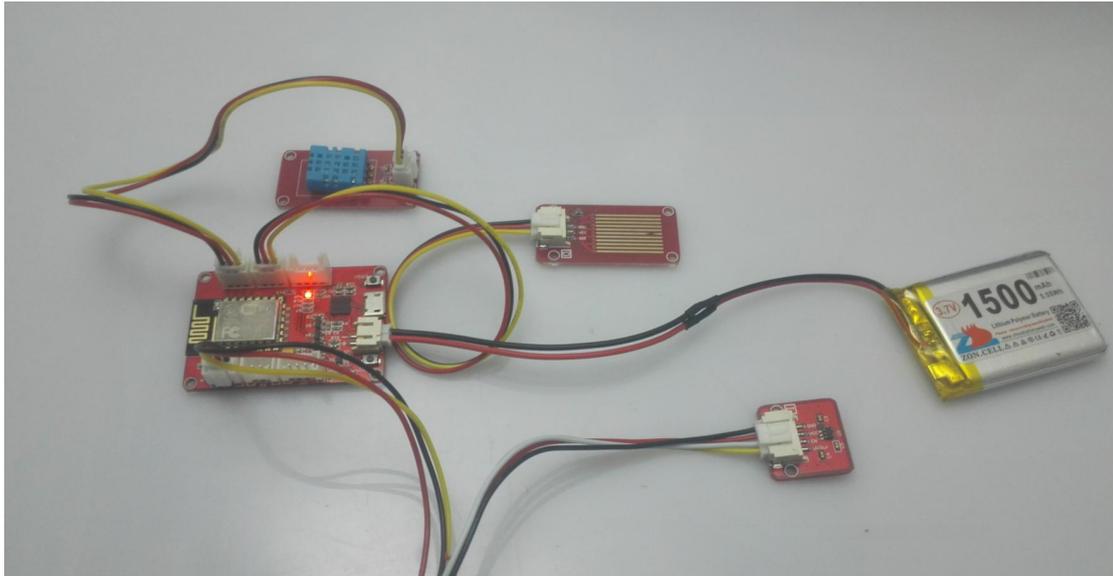
Step 1: What You' ll Need

1. Crowtail- ESP8266 NodeMCU X2
- 2: Crowtail- Water Sensor
- 3: Crowtail- Temperature& Humidity Sensor
- 4: Crowtail- UV sensor
- 5: Crowtail- OLED
6. 5V 1A usb adaptor X1
7. 3.7V li-Ion battery X1

Step 2: Weather Station Hardware Assembly

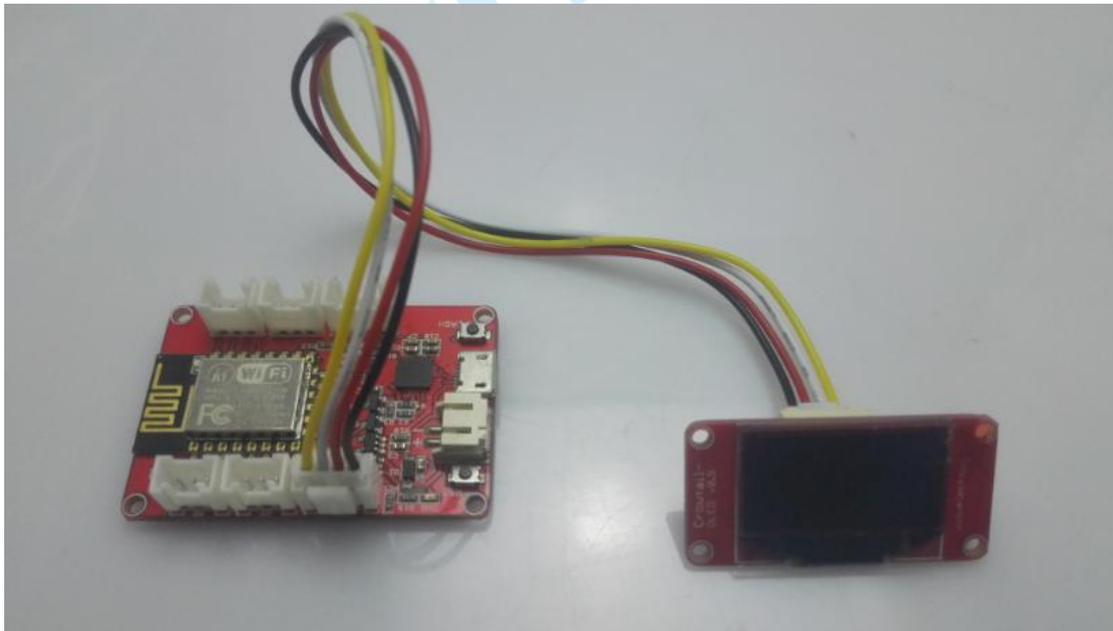
Monitoring station:

One of the esp8266 IOT board (outside part) take as data collector with DHT11,UV sensor, rain sensor and powered by li-ion battery. Plug the UV sensor into A0 port with a crowtail cable. Also the DHT11 connect to the D1 port and the rain sensor connect to the D2 port. Finally, plug the fully charged battery into the IOT board. The IOT board build in charge circuit. You can charge the li-ion battery through usb cable with DC 5V.



Display station:

The second esp8266 IOT board take as data receiver. It can display the weather information that collected by the sensor through a crowtail- oled. Plug the oled into the I2C port. And connect the usb cable for power supply.



Step 3: download the program

Monitoring station:

Open the A.ino for sender, connect to your computer with a USB cable. Select tool option->board->NodeMCU 0.9. And select your com port through option->port. Then you should change the ssid and password according to your router as the picture shows.

```
const char *ssid      = "Elecrow803";//ere is my wifi, modified to you
const char *password = "elecrow2014";//wifi password
```

After above steps, you can download the A.ino into the IOT board. You should open the com monitor to record the send back ip address.

Display station:

Open the B.ino for the receiver then connect to your computer with a USB cable. Select tool option->board->NodeMCU 0.9. And select your com port through option->port. Then you should change the ssid and password according to your router. At last you also need to change the ip address into which record earlier.

```
const char *ssid      = "Elecrow803";//
const char *password = "elecrow2014";//
const char *host      = "192.168.1.184";//
```

After above steps, you can download the B.ino into the Data Receiver. After several seconds, oled will display the weather information.



Attention

You should power the monitoring station first, then power the data receiver. So the LED of monitoring station IOT board will not flash after the two boards linked successfully.

