

ESP8266
Dev_Board_HamClock
Assembly Guide
Rev 1.0



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● Note

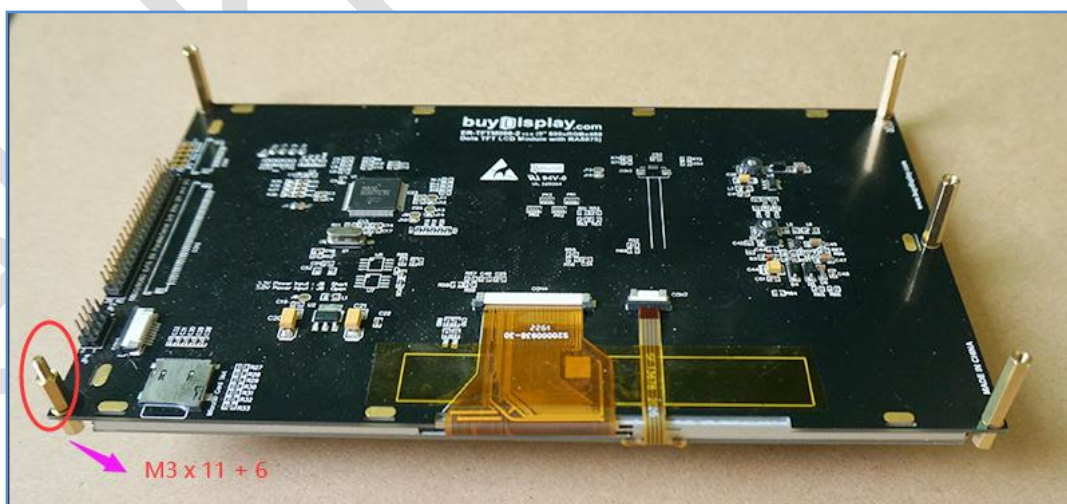
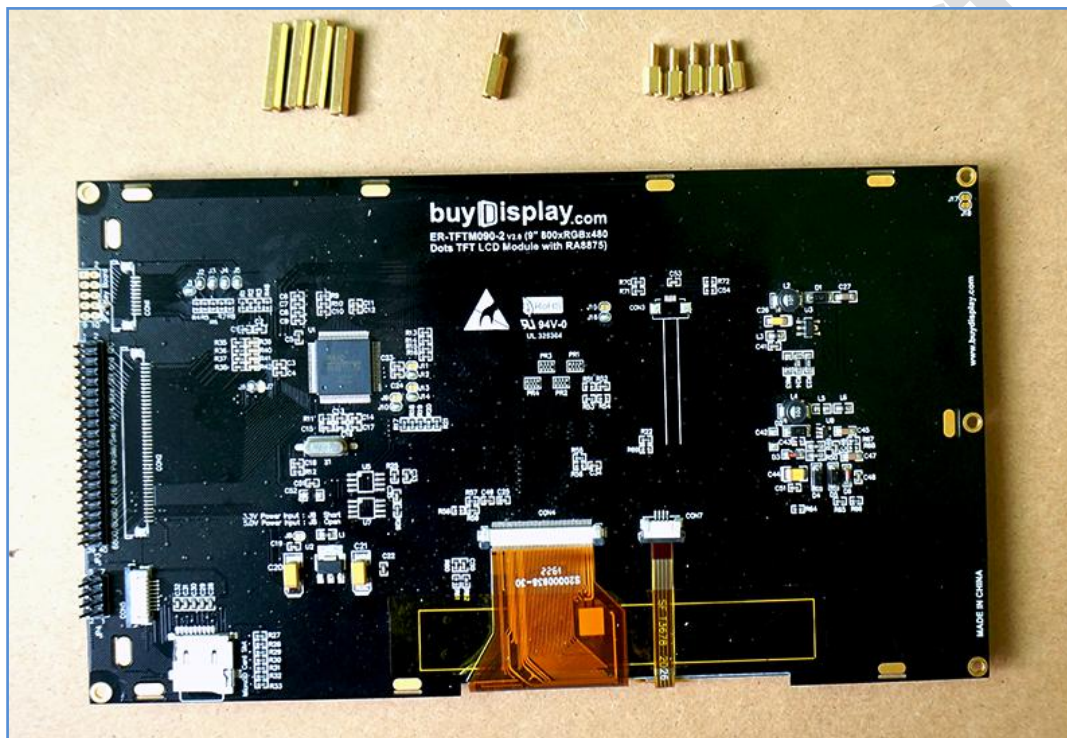
Thank you for purchasing the ESP8266_Dev_Board & HamClock kit. The board is designed to work with the 9" TFT LCD produced by www.buydisplay.com. So please go and buy a display before the kit assembly.

● Assembly

Step 1

● Parts

1. 9" TFT Display
2. Copper Standoff: M3 x 19 (Through) x 4, M3 x 7 + 6 x 5, M3 x 11 + 6 x 1



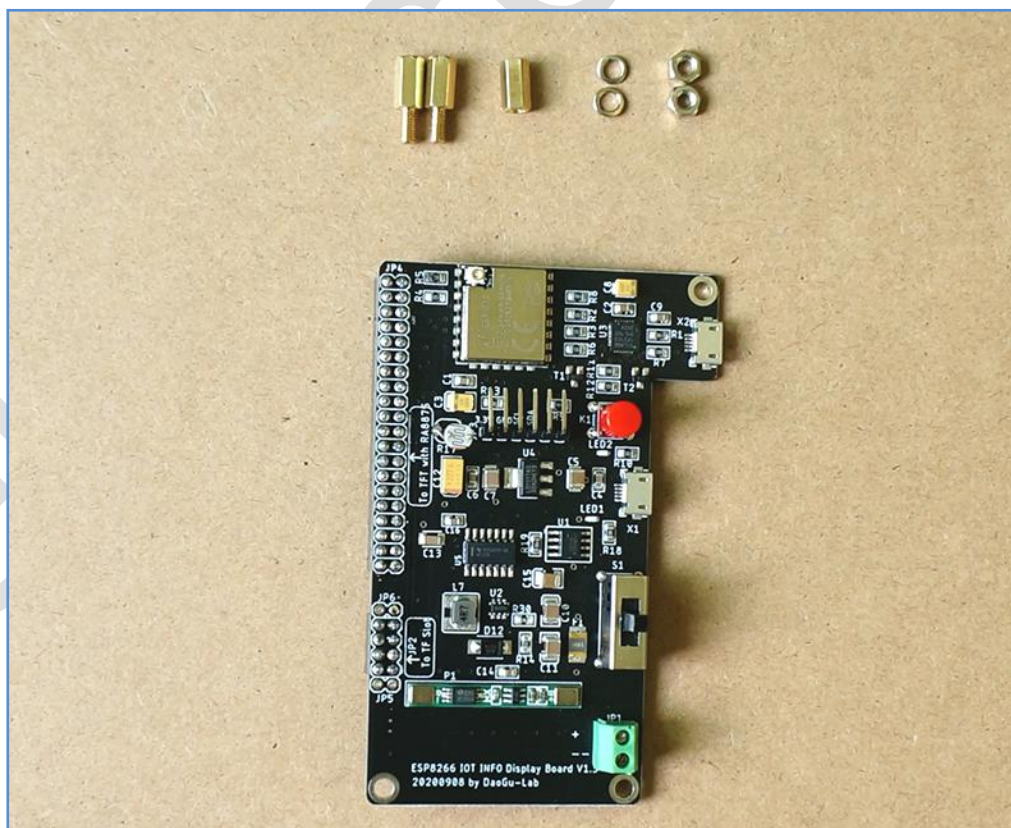


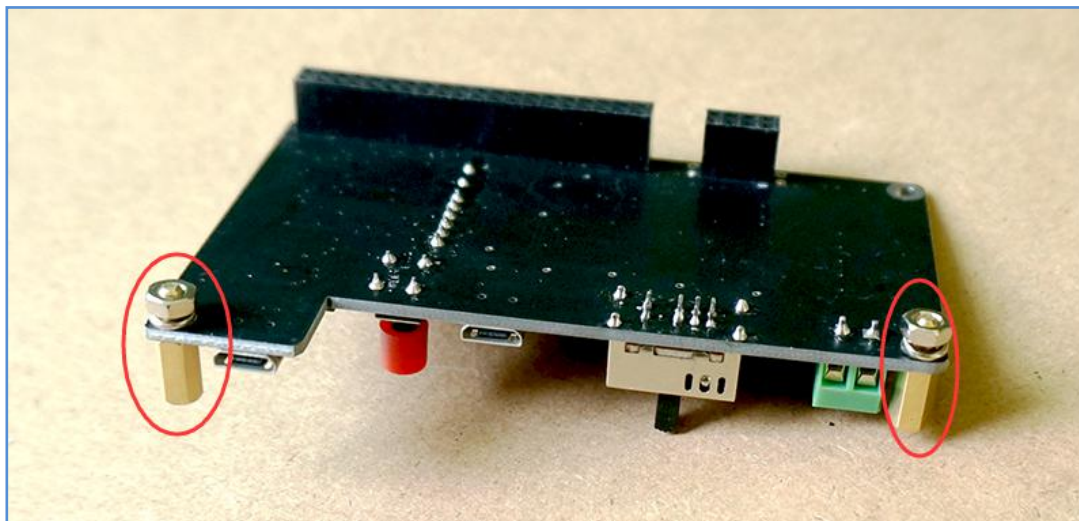
Install the standoffs on to the LCD module, just as following, pay attention, the M3 x 11 + 6 should be installed to the down left corner of the LCD module.

Step 2

● Parts:

1. ESP8266_Dev_Board
2. Copper Standoff: M3 x 9 + 6 x 2
3. Washer: M3 x 2
4. Nuts: M3 x 2



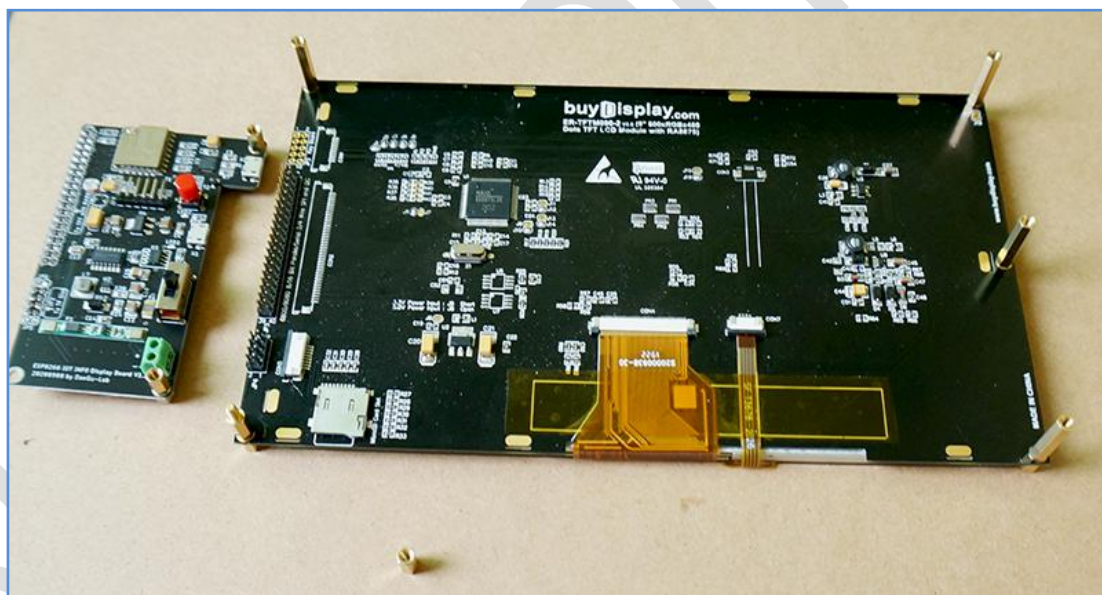


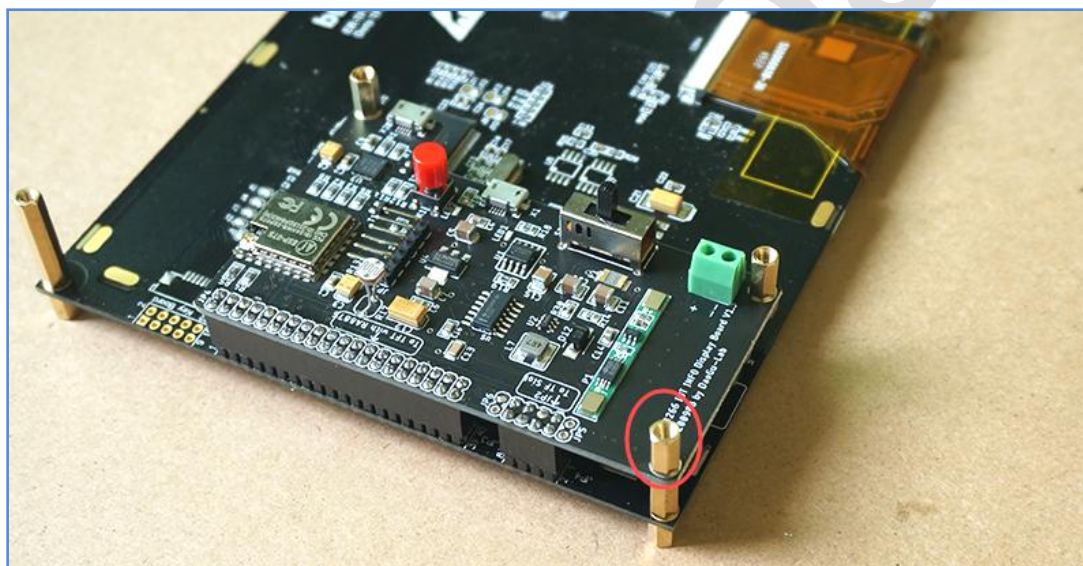
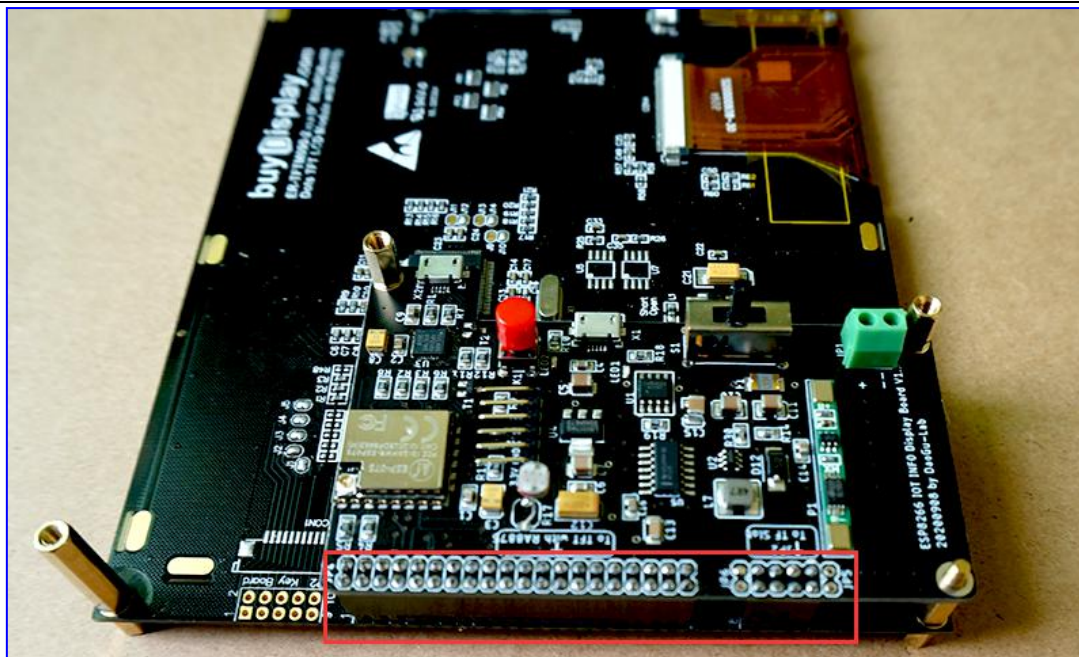
Install the two M3 x 9 + 6 standoffs to the two right mounting holes on the board.

Step 3

● Parts:

1. ESP8266_Dev_Board
2. LCD Module
3. Copper Standoff: M3 x 9 (Through) x 1

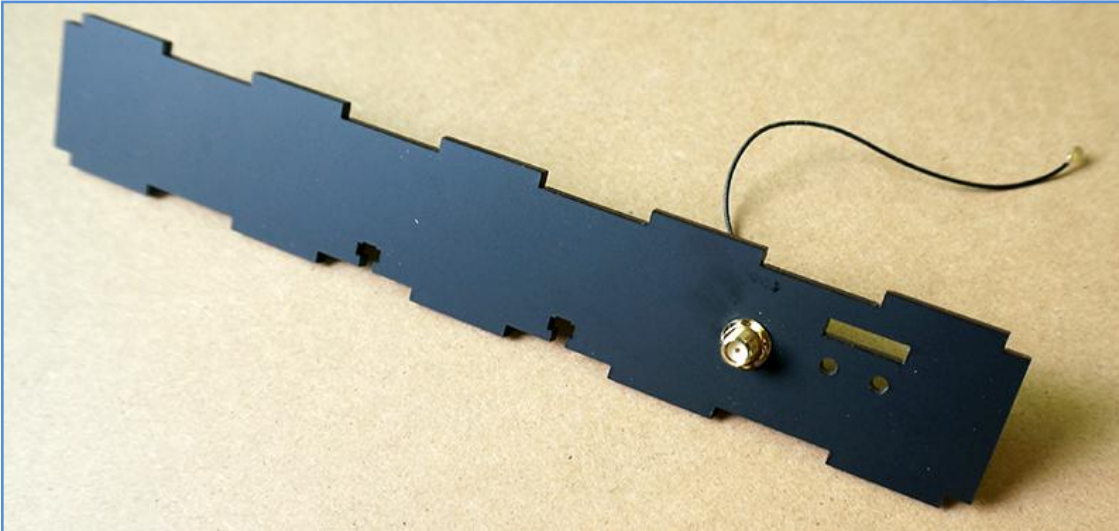
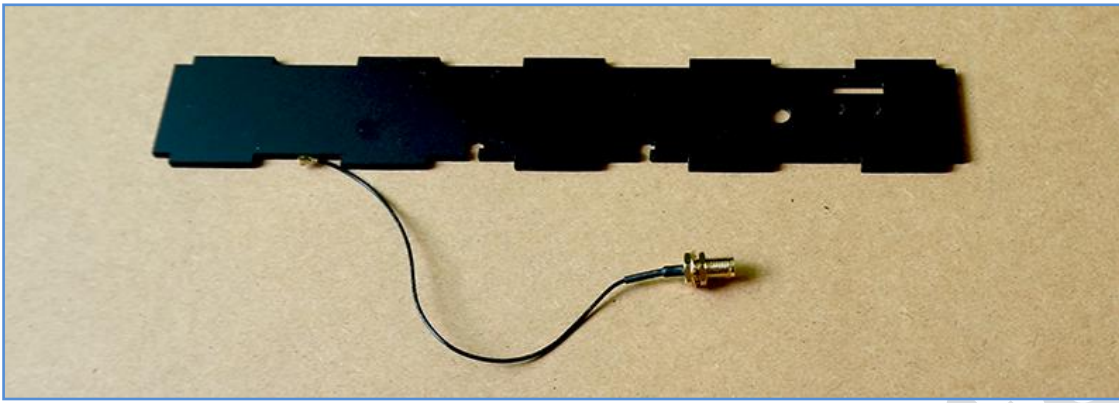




Plug the ESP8266 board onto the LCD module, and install the M3 x 9 (Through) standoff onto the board.

Step 4

- Parts:
 1. Enclosure: top plate
 2. Antenna Cable



Mount the SMA connector to the top plate as the picture shows.

Step 5

- Parts:

1. Enclosure: front plate
2. LCD Module
3. Screw: Hex Socket M3 x 8 x 5



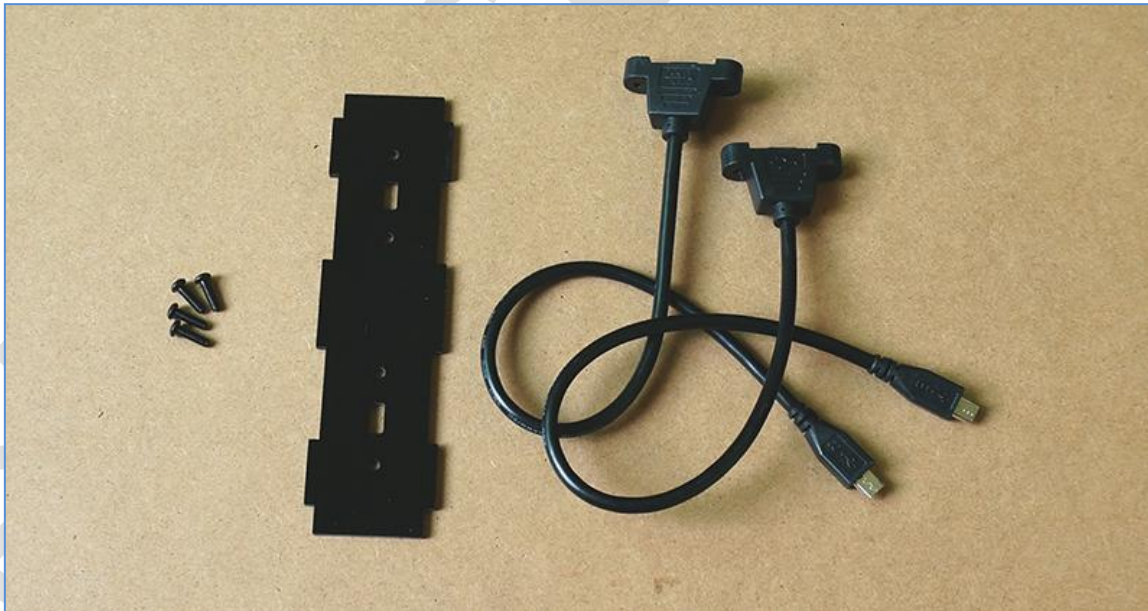


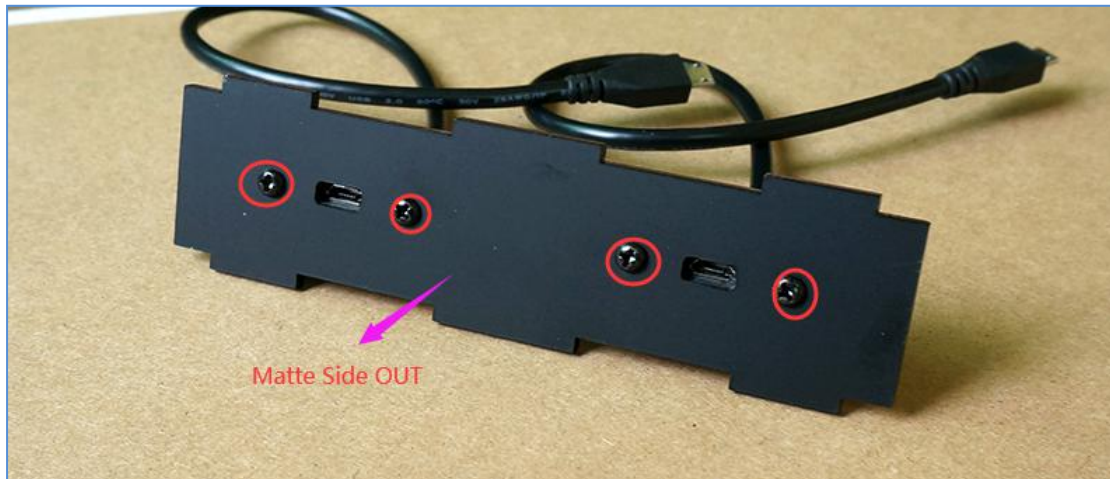
Mount the front plate(panel) on top of the LCD module, secure it with five M3 x 8 hex socket screws.

Step 6

- Parts:

1. Enclosure: left plate
2. MicroUSB extension cable x 2
3. Screw: Phillips Round-Pan M3 x 10 x 2



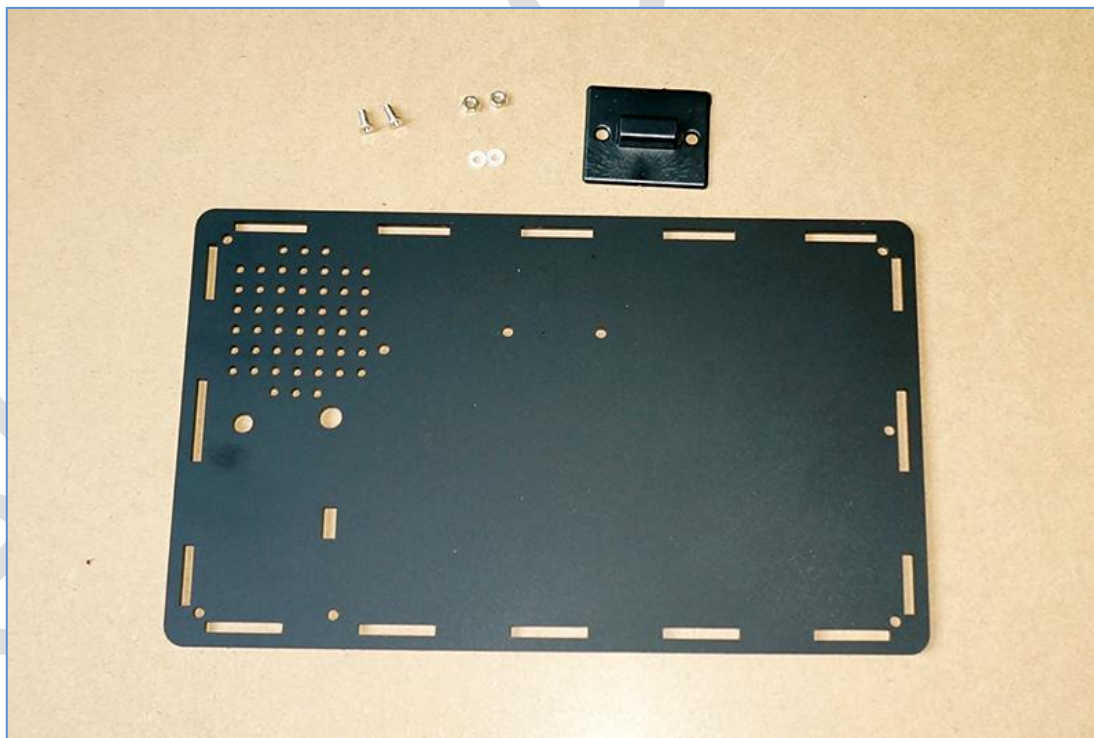


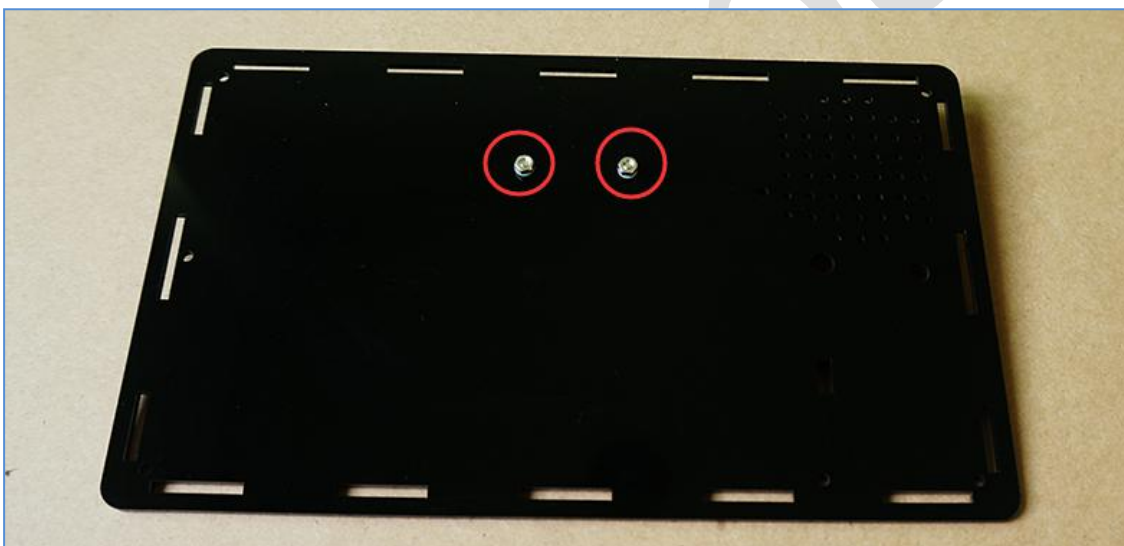
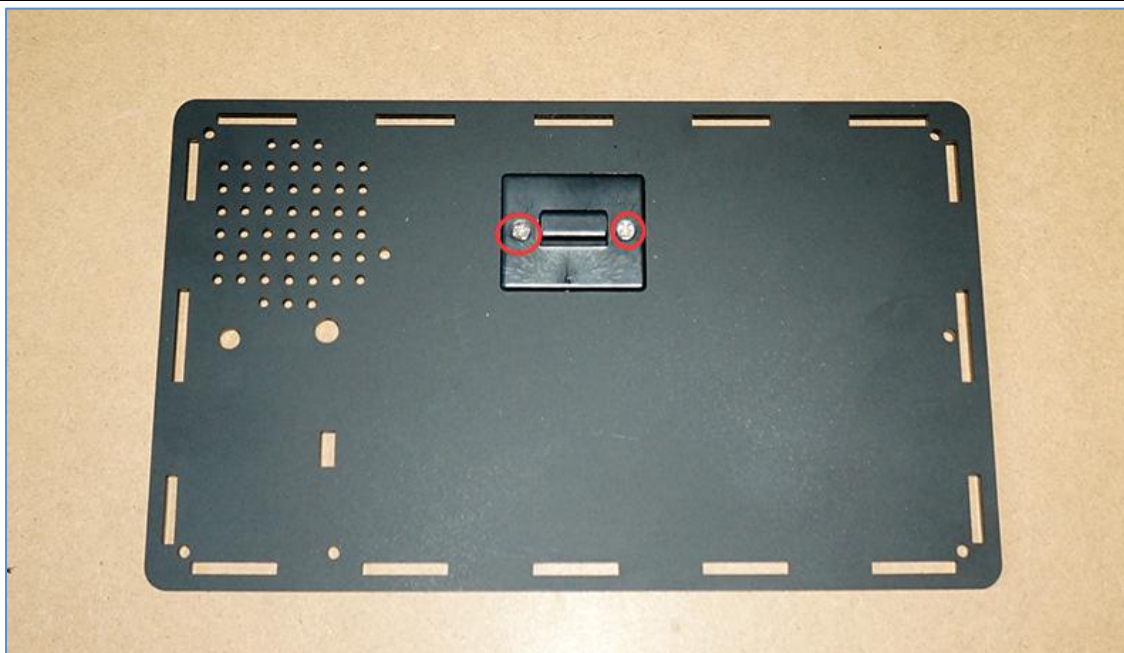
Secure the 2 extension cable onto the left plate, do not forget to face the matte side out.

Step 7

- Parts:

1. Enclosure: rear(back) plate
2. Stand Mounting Plate x 1
3. Screw: Phillips Counter Sink M3 x 8 x 2
4. Washer: Nylon M3 x 2
5. Nut: M3 x 2



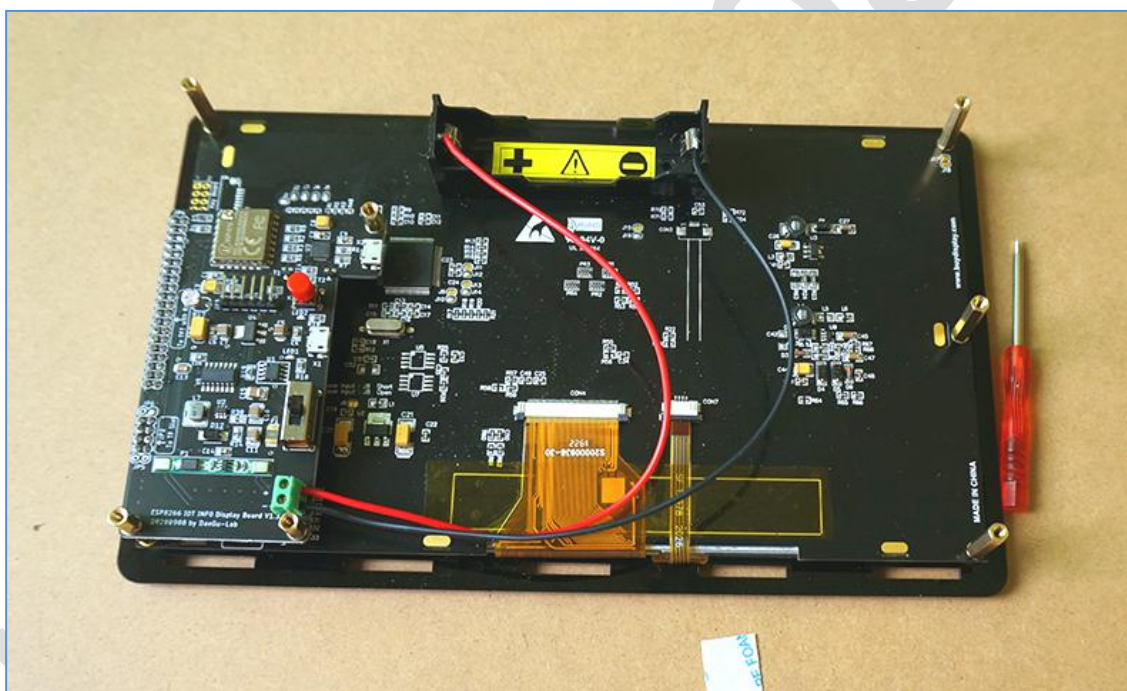
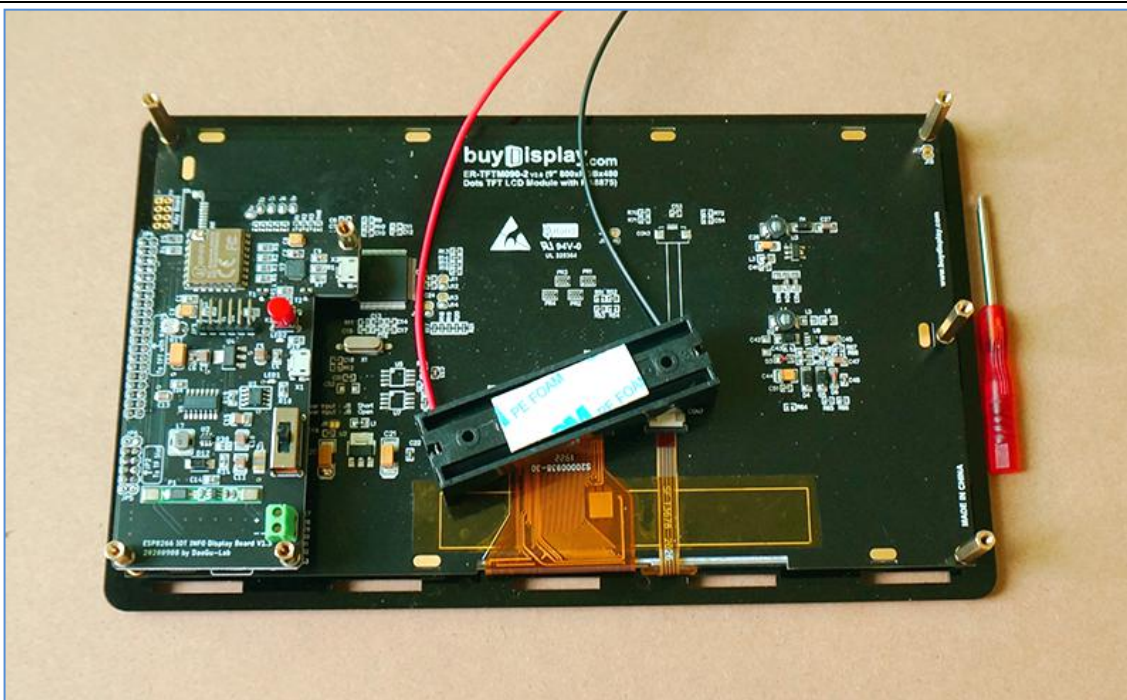


Mount the mounting plate onto the rear plate, secure it with screws, washer and nuts. The matte side should be always out.

Step 8

- Parts:

1. LCD Module
2. Battery Holder x 1

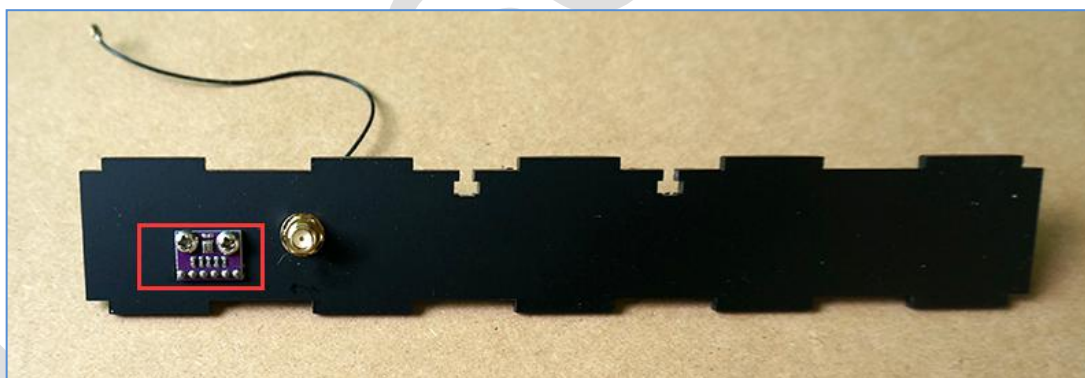
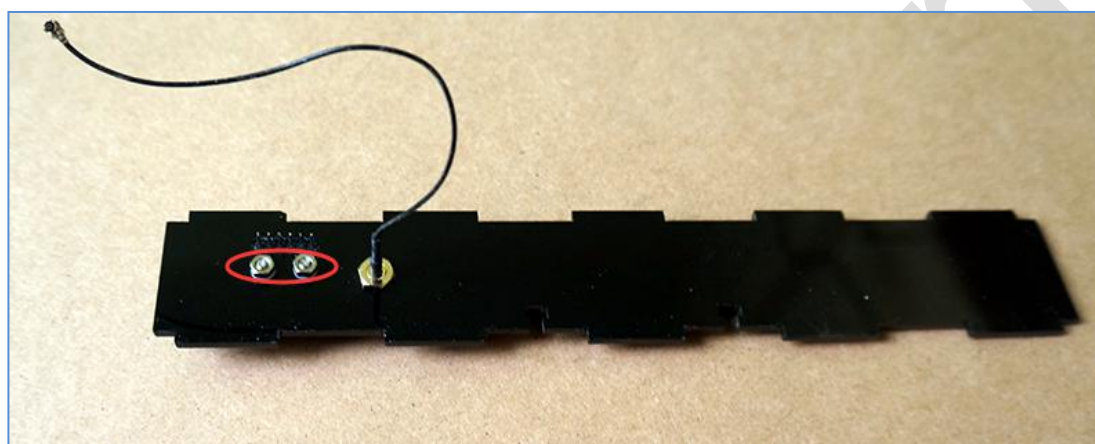
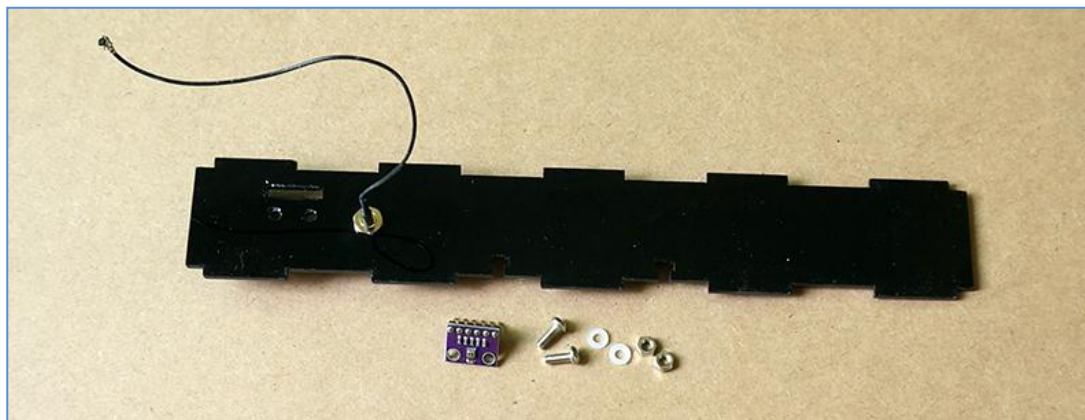


Peel off the tape's film on back of the battery holder, and secure it on the back of LCD module. Connect the two battery cables to the ESP8266 board and secure them. Do as the picture shows, pay attention to the polarity.

Step 9

- Parts:

1. Enclosure: top plate
2. Screw: Phillips Round-Pan M3 x 8 x 2
3. Washer: Nylon M3 x 2
4. Nut: M3 x 2
5. BME280 Module x 1

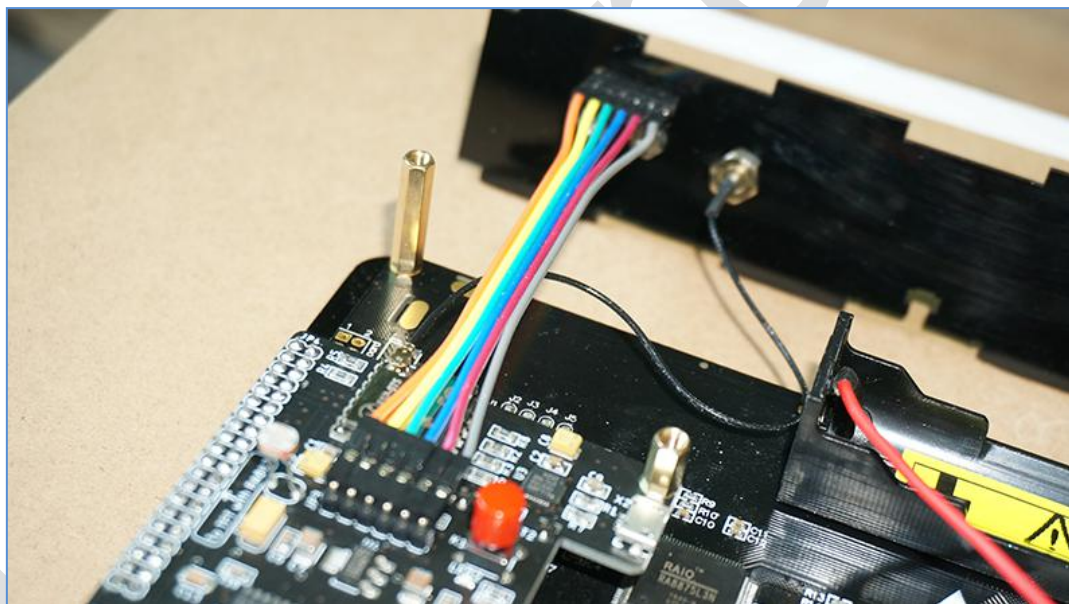
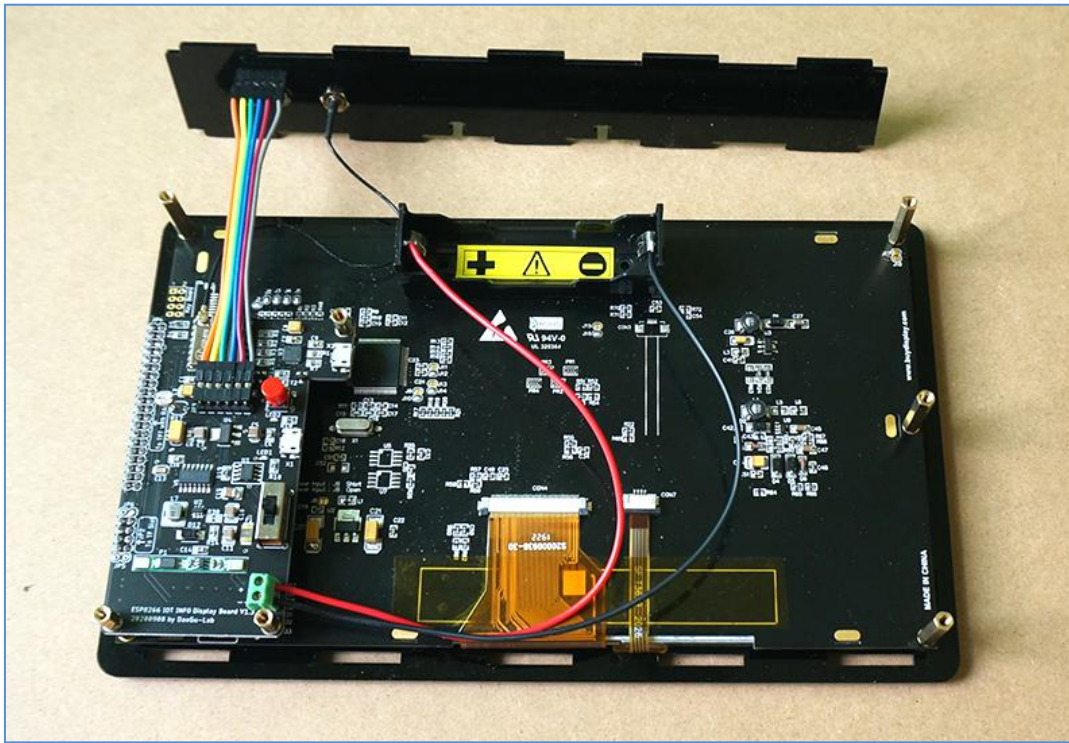


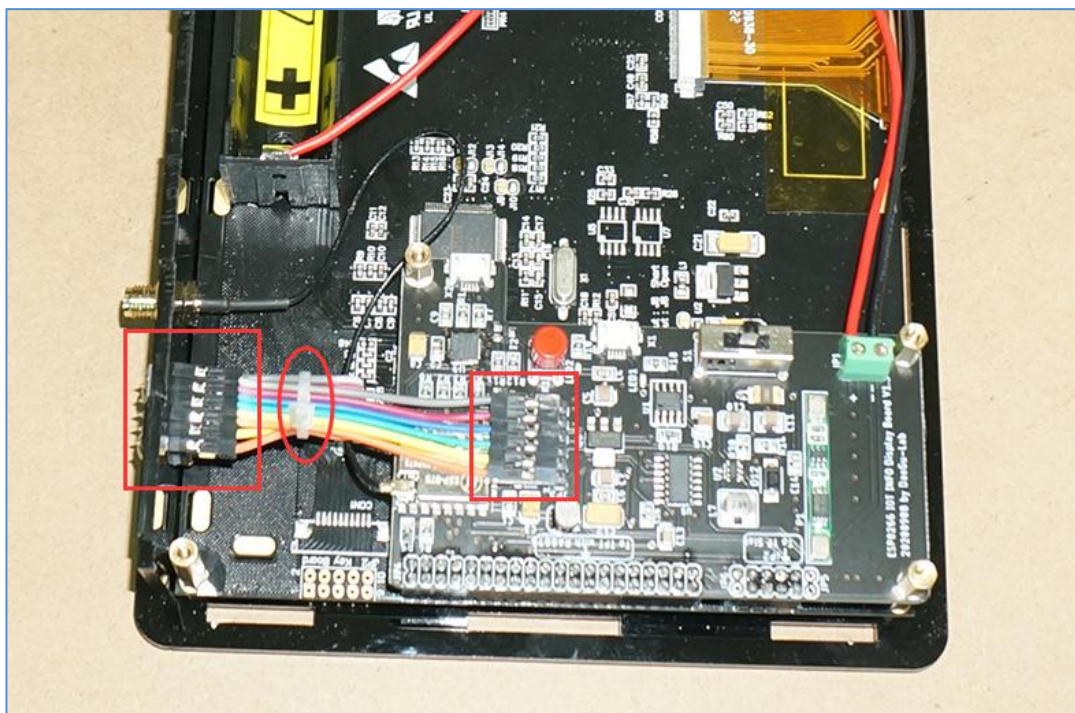
Install BME280 module onto the top plate, secure it with 2 screws, washers and nuts as you can see from the picture.

Step 10

● Parts:

1. Enclosure: top plate
2. LCD Module
3. 6-PIN Dupont Cable x 1
4. Plastic Cable Tie x 1



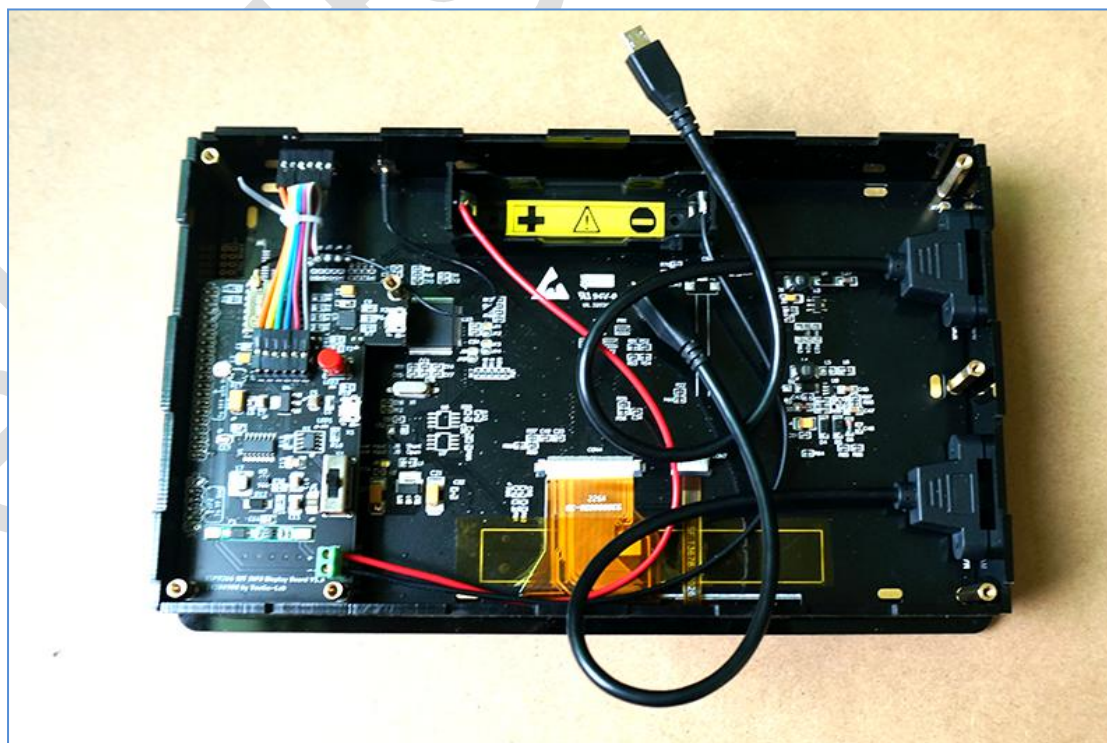


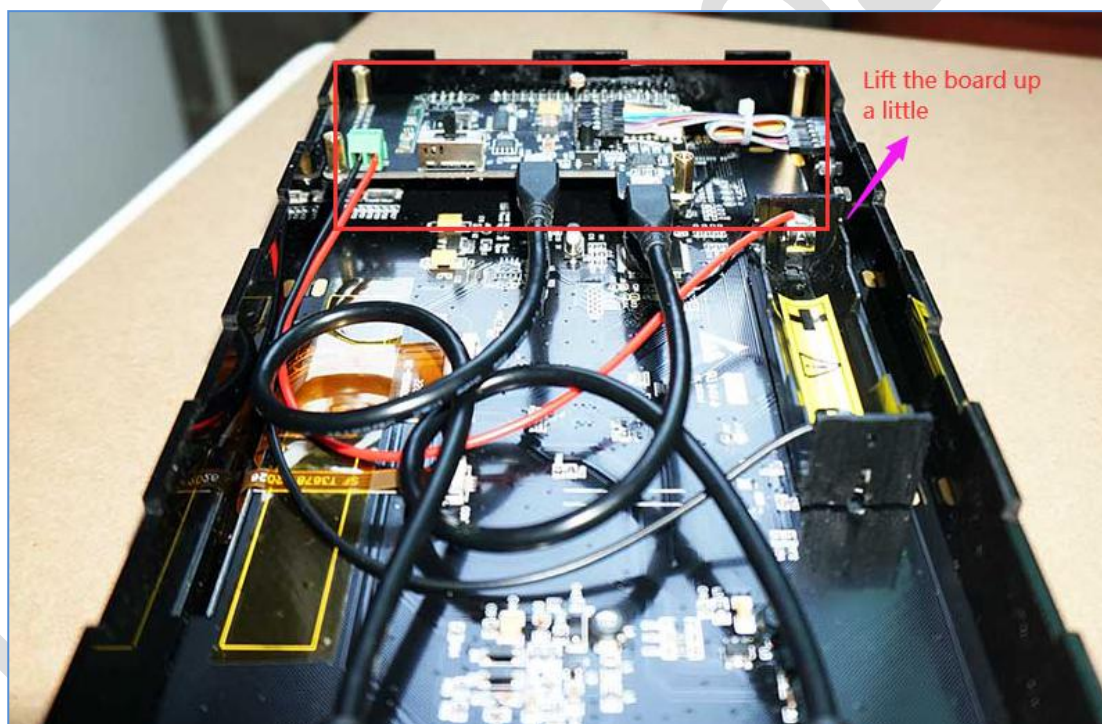
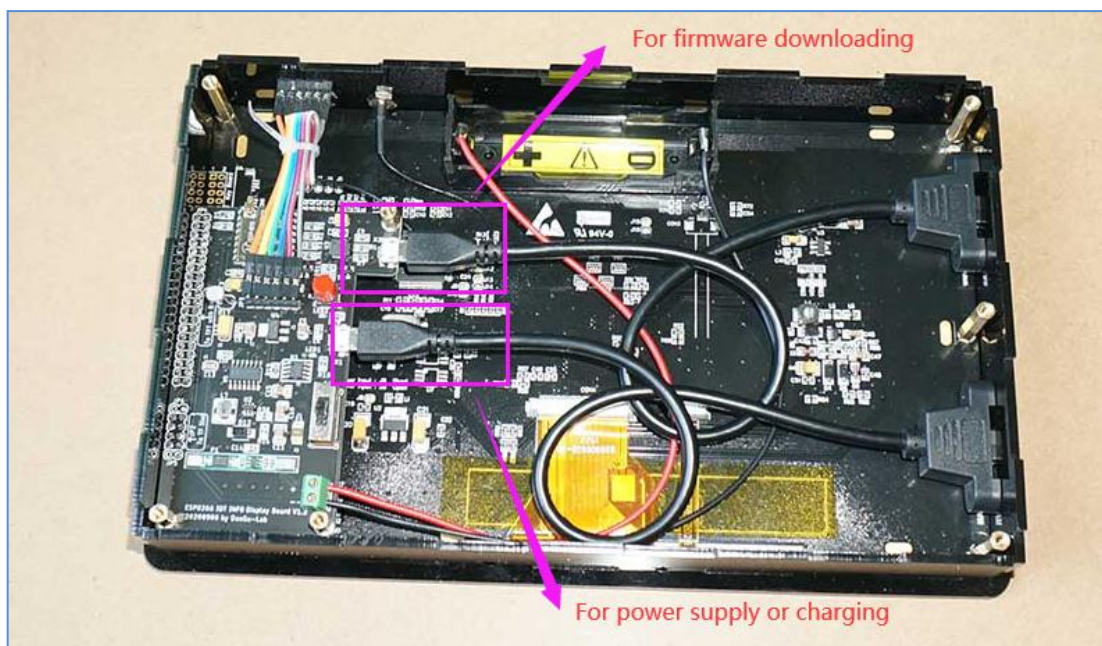
Connect BME280 module to the ESP8266 board with a 6-pin dupont cable, you can bend and fold the cable and then secure it with a cable tie. A pin to pin connection, do not make the pin order wrong.

Step 11

- Parts:

1. Enclosure: top plate, left plate, bottom plate, right plate



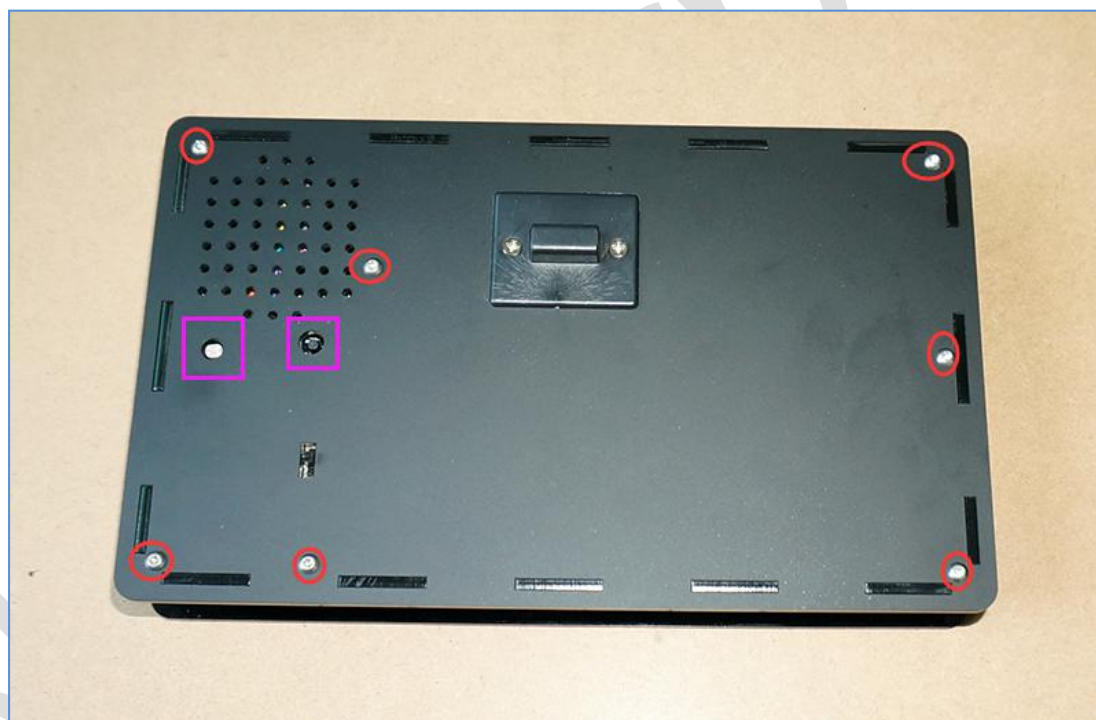


Insert the side plates to the front plate(panel), do not use too much strength when doing this, as the acrylic is very brittle, some holes may be a little tight, so please be careful. Insert the two micro-usb heads of the extension cables to ESP8266 board. Now, lift the ESP8266 board upward a little, this will be helpful for mounting the ESP8266 board onto the rear plate.

Step 12

● Parts:

1. Enclosure: rear plate
2. Screws: Button Hex Socket M3 x 6 x 7

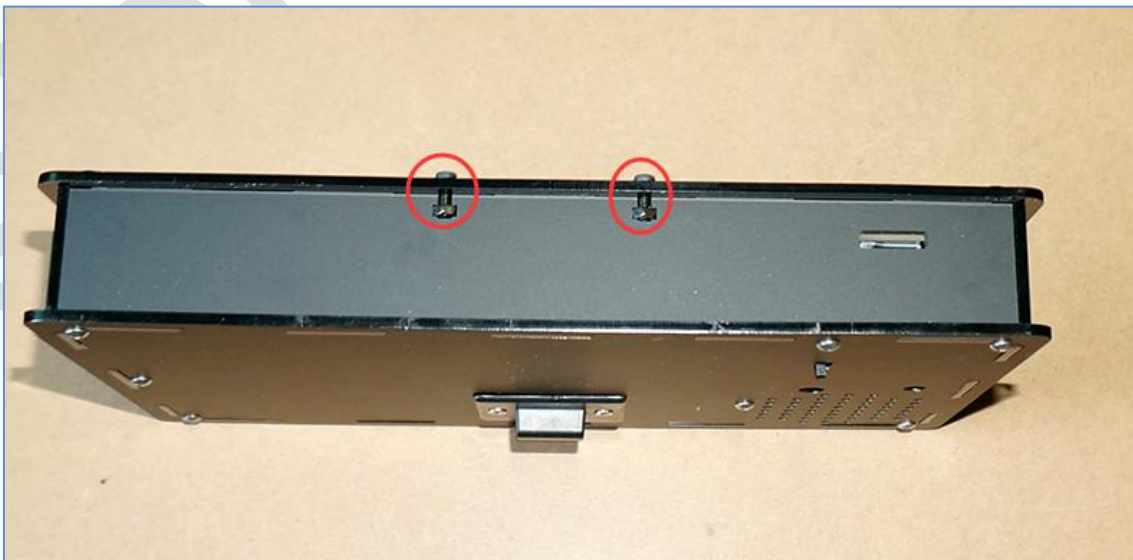
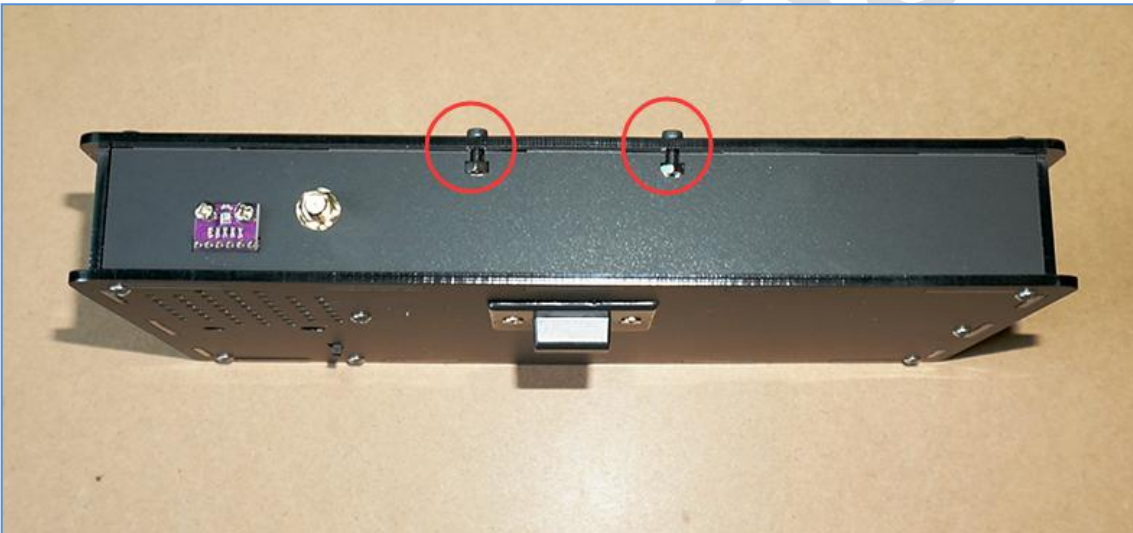


Install the rear plate, secure it with 7 screws. Make sure the photo-resistor and tact switch is in the right position.

Step 13

● Parts:

1. Screws: Hex Socket M3 x 8 x 4
2. Nuts: M3 x 4





Mount four hex socket screws onto the front plate and secure them with four nuts. Do not screw too tight as the acrylic material is very brittle. Now it is all done. It's time to flash the firmware.



Note: Two micro-usb cable is required when flashing the firmware if there is no battery installed. One is for power supply, and the other one is for com port communication. See the picture below for the explanation of switch position.

