

Arduino PH Meter Assembly Guide

V1.00

Prepare By : Kevin Lo

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Information

Arduino UNO : <http://www.mini-kassel.com/Arduino-UNO-R3>

LCD Keypad Shield : http://www.mini-kassel.com/LCD_Keypad_Shield

PH Meter Board : <http://www.mini-kassel.com/Arduino-PH-Board>

Case : <http://www.mini-kassel.com/Arduino-PH-Meter-Case>

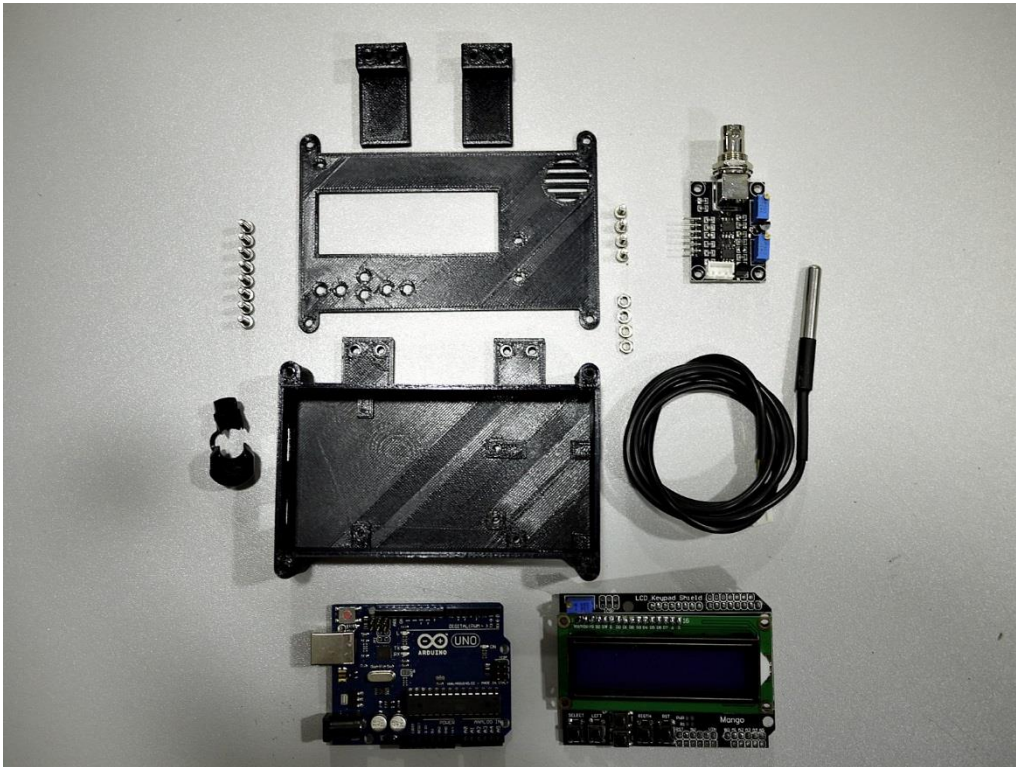
Arduino Sketch : <https://github.com/kevinlohk/ArduinoPhMeter>

Case Design on Thingiverse : <http://www.thingiverse.com/thing:709749>

Step 1 : Prepare Hardware

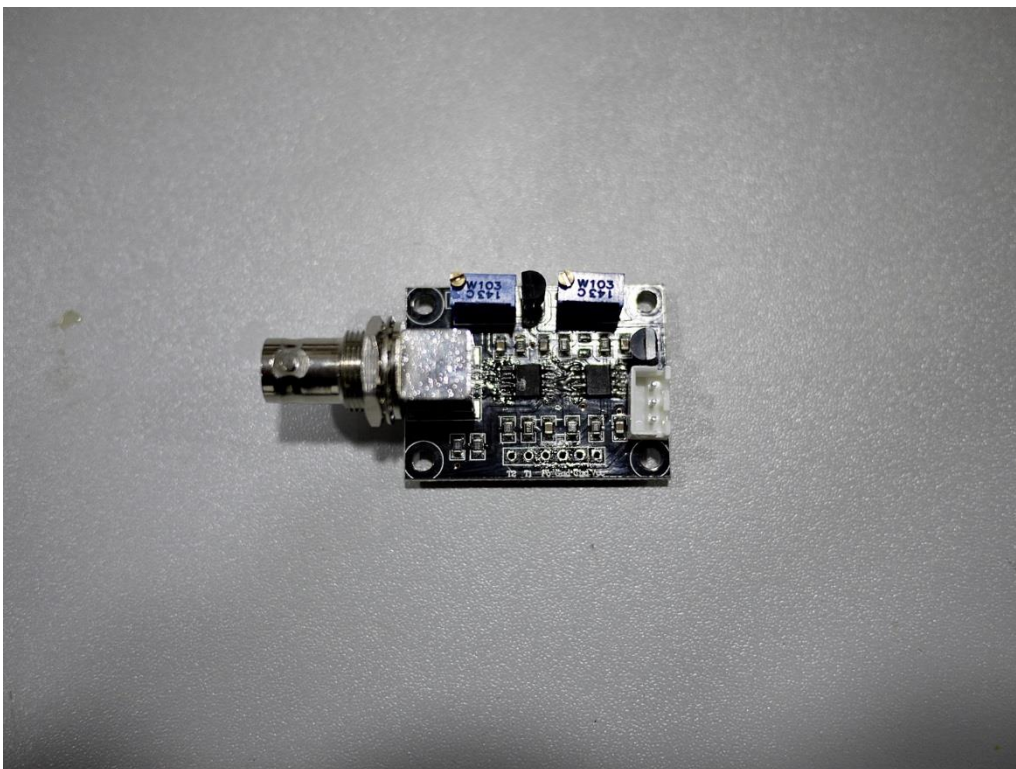
Case : 1x Top Cover , 1x Body , 2x Mount , 5x Button , 1x Cable Cap , 8x M3x16mm Screw , 4x M3x10mm Screw , 4x M3 Nuts

Elec. : 1x PH Meter Board , 1x DS18B20 Sensor , 1x Arduino UNO , 1x LCD Keypad Shield , 6x 10cm wire



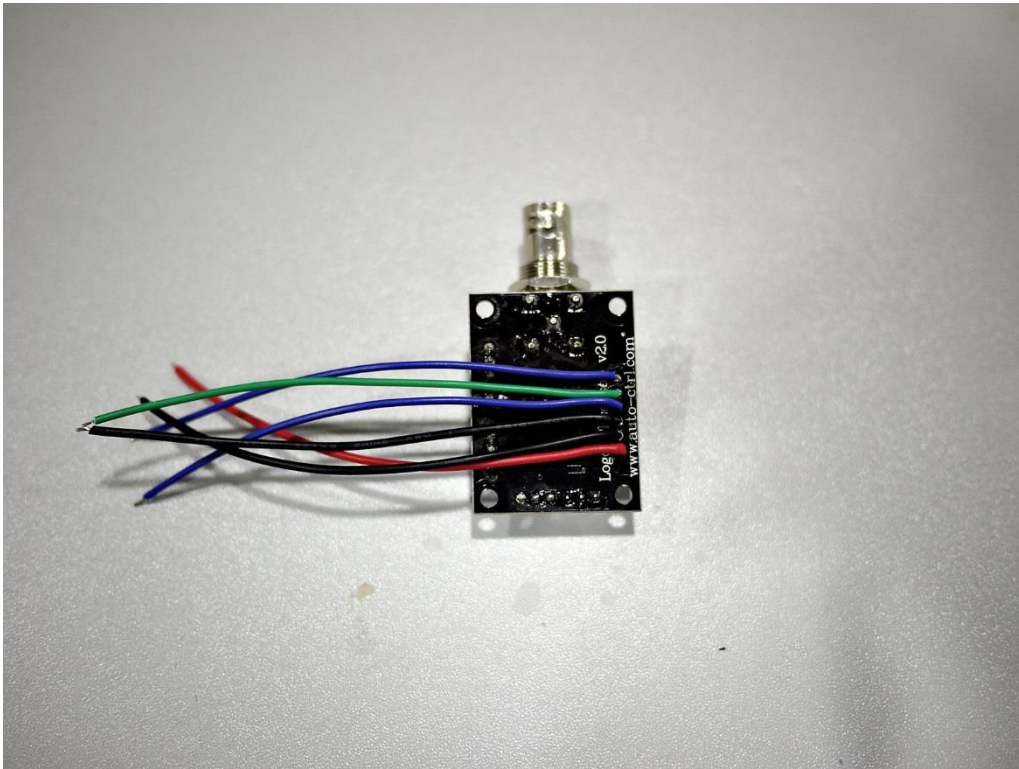
Step 2 : Soldering for PH Meter Board

Use solder tools to take out 6pin of 2.54 pin.



Step 3 : Soldering Wire

Solder 6x 10cm wire to the PH Meter Board



Step 4 : Solder to LCD Keypad Shield

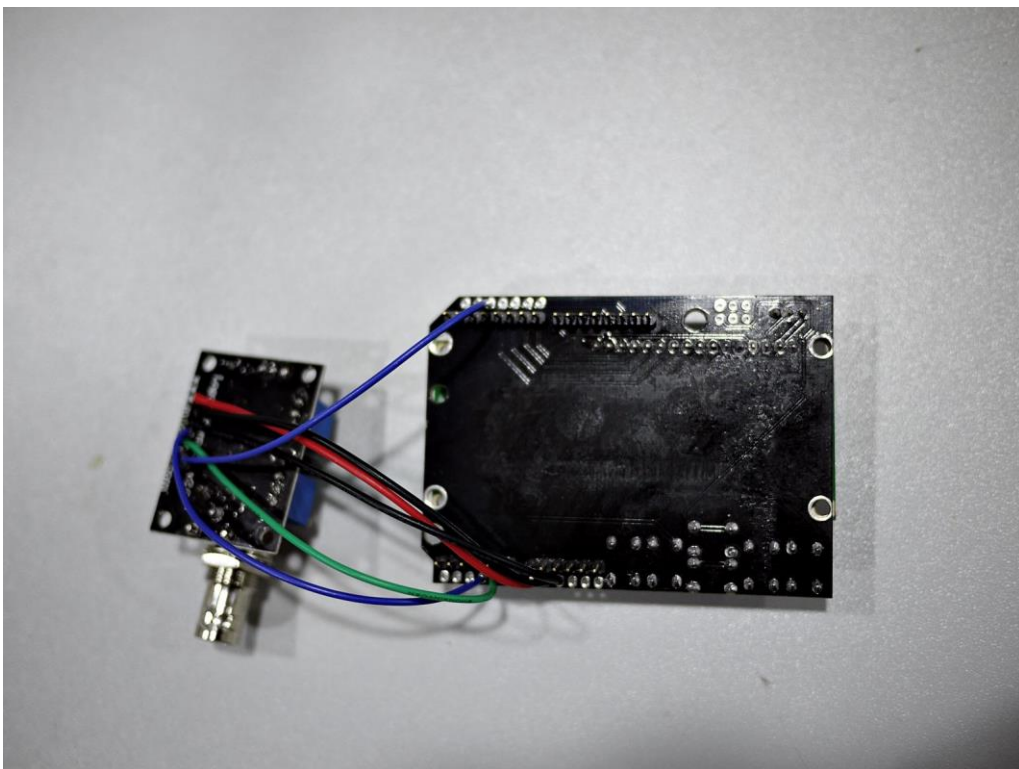
PH Meter Board VCC to LCD Keypad Shield 5V

PH Meter Board GND to LCD Keypad Shield GND

PH Meter Board Po to LCD Keypad Shield A2

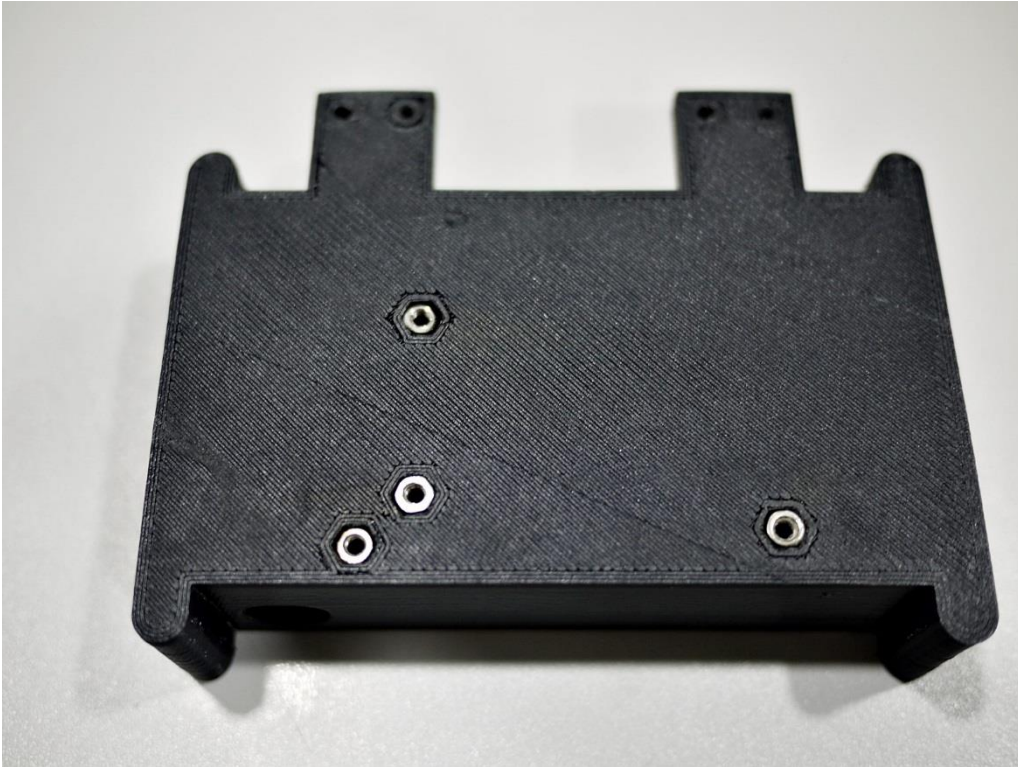
PH Meter Board T1 to LCD Keypad Shield A1

PH Meter Board T2 to LCD Keypad Shield D2



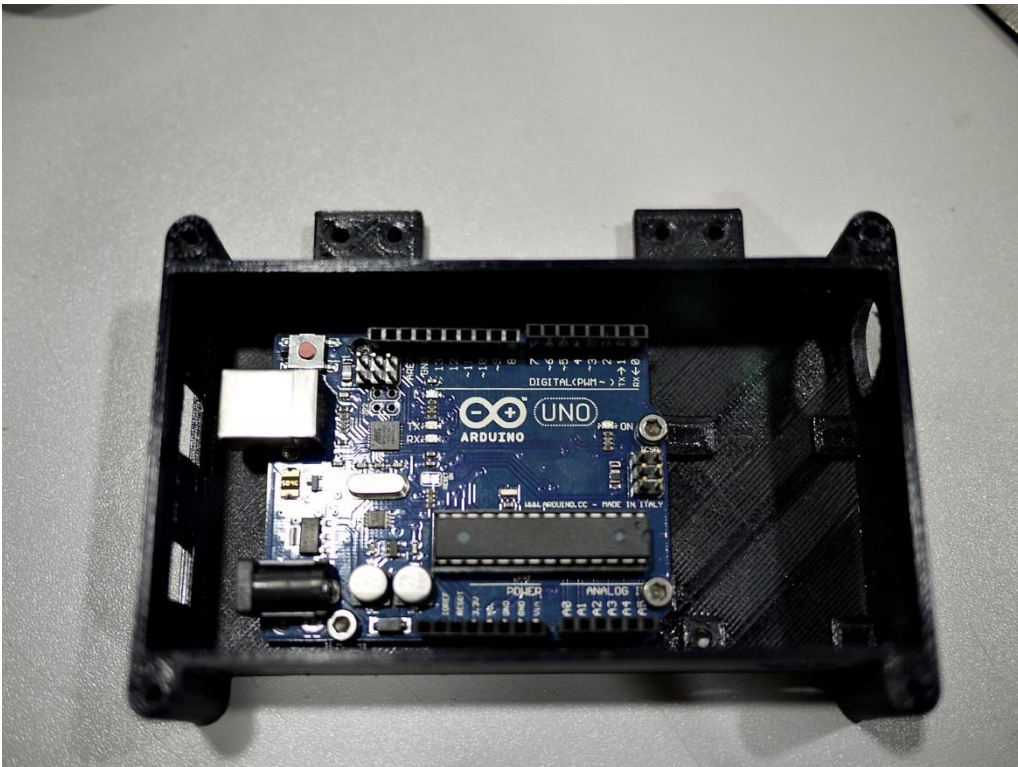
Step 5 : Install M3 Nuts

Install 4x M3 Nuts at the bottom of the Case



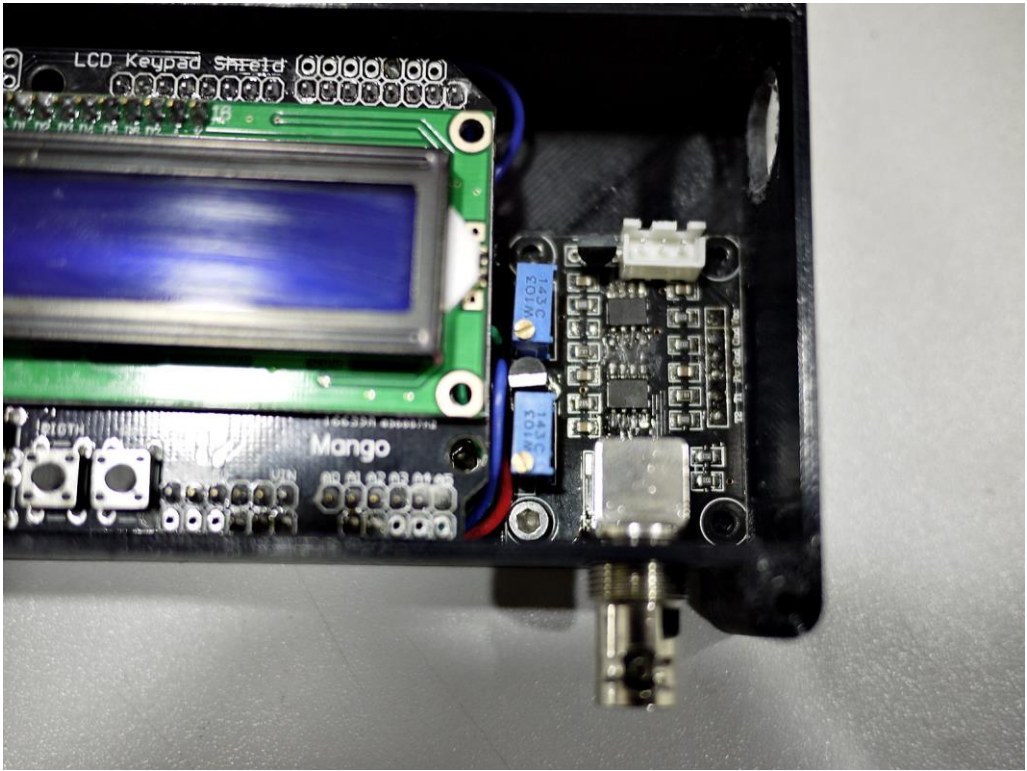
Step 6 : Secure Arduino UNO

Secure Arduino UNO by 3x M3x 10mm Screws



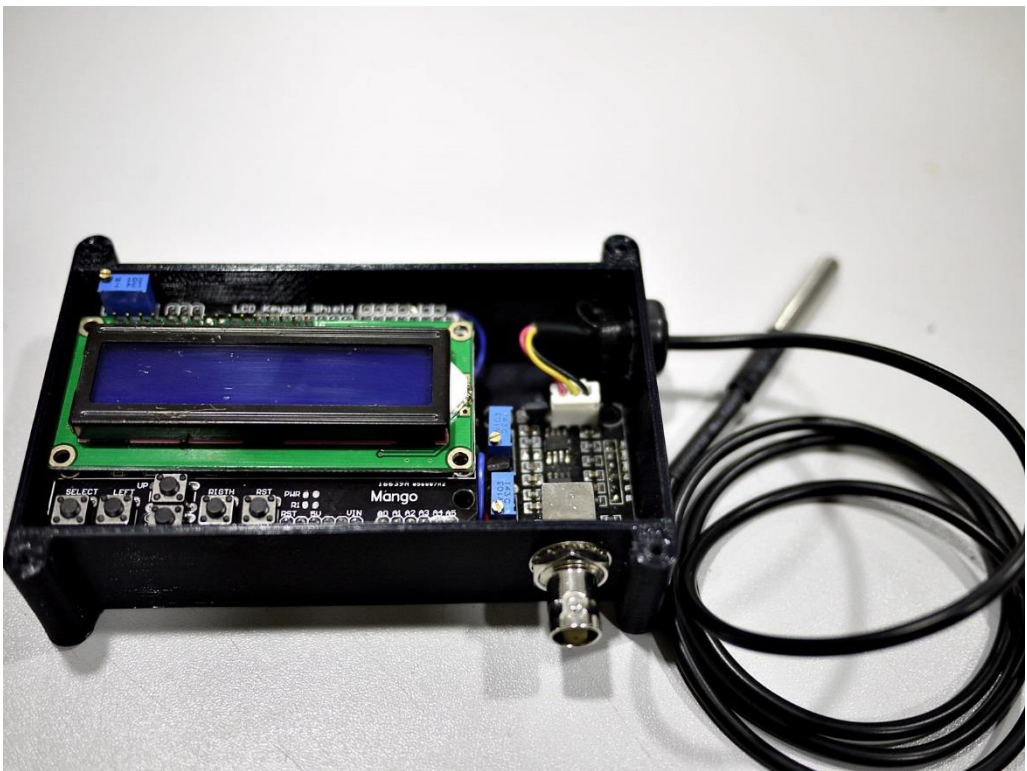
Step 7 : Secure PH Meter Board

Secure PH Meter Board by 1x M3 x10mm Screw



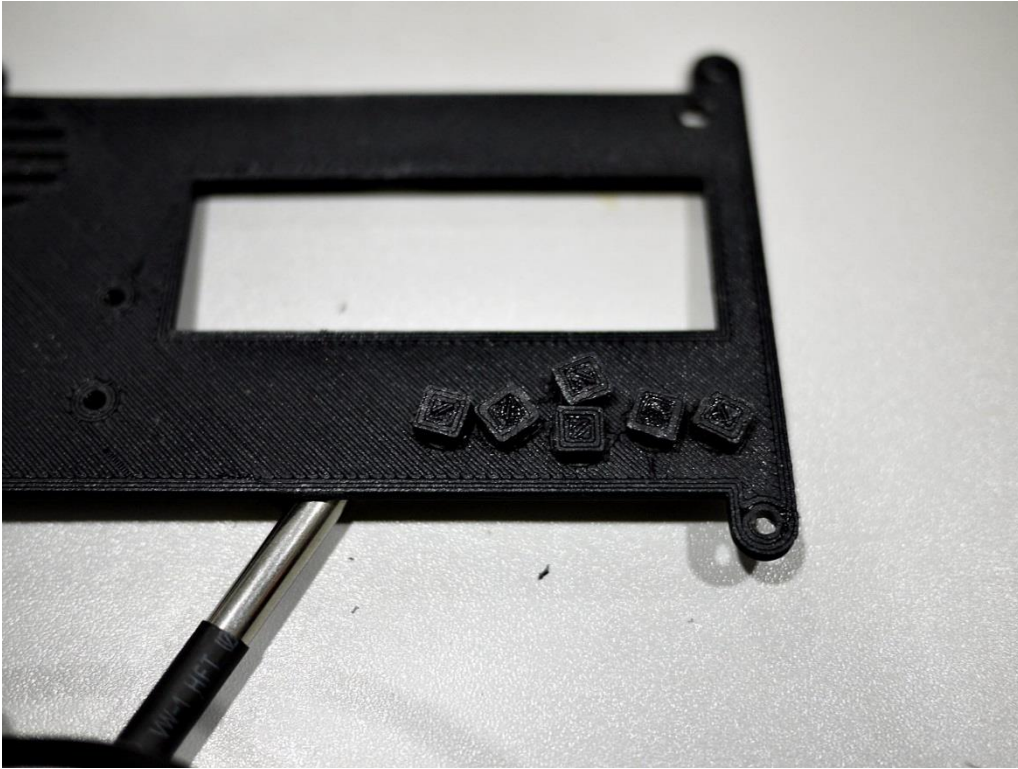
Step 8 : Connect DS18B20 Sensor

Connect DS18B20 Sensor to PH Meter Board and also secure by cable cap.



Step 9 : Install Button

Put 6 button from the rear of Front Cover and put in on the case body.



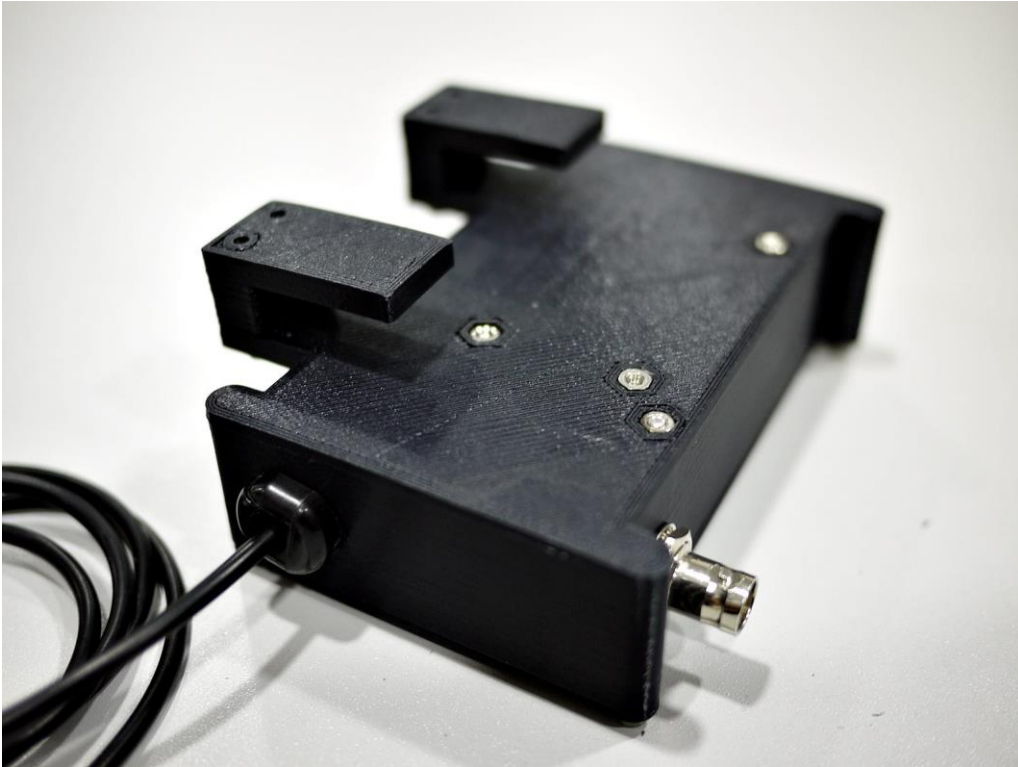
Step 10 : Secure Front Cover

Secure front cover by 4x M3x16mm screws



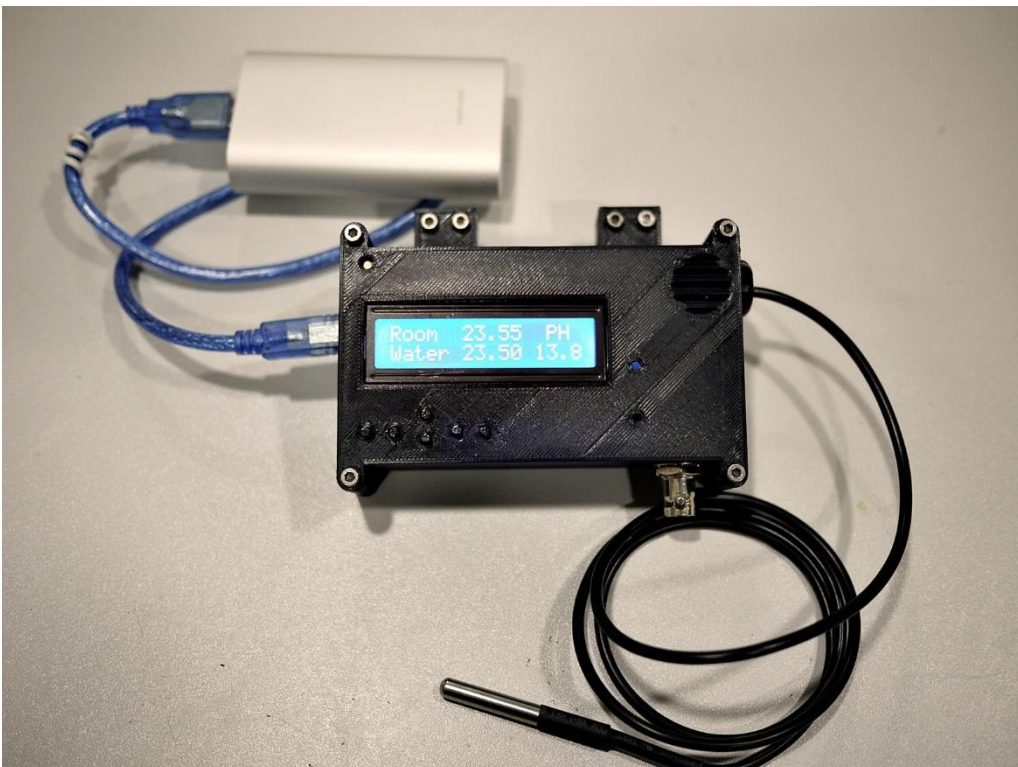
Step 11 : Secure Mount

Secure mount by 4x M3x16mm screws



Step 12 : Power Up

Power up the Arduino via USB port. Then you will see the following screen.



Step 13 : Testing

Hold the DS18B20 sensor in your palm , you should see the Water temperature will increase.
After that , process PH calibration for calibrate the PH.

