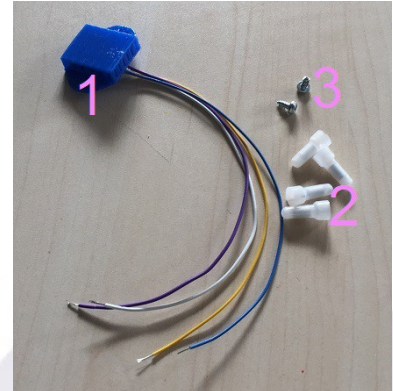# AAG CloudWatcher
Update Humidity sensor (*)

(*) For AAG CloudWatcher units SN 400 onwards.

For a better understanding of these instructions we have divided them into two sections:

    ✔ <u>to units with serial numbers from 400 to 1205 (both included)</u> (steps A) [1]
    ✔ <u>to units withe serial number 1206 onwards</u> (steps B)

<u>Material supplied</u>:

1. Relative humidity sensor wired and protected. We will call it **RHS**.
2. Quick splice connector (4ud.+ 2 extra)
3. Screws (2ud.+ 2 extra)

Assembly in units with serial number 400 to 1205

Besides the supplied items, you will need your AAG CloudWatcher unit (SN 400 to 1205), a phillips screwdriver and it is recommended to use wire strippers or at least some pliers to tighten the splice connectors.

A-1st. Step

Unscrew your AAG CW, first the white box and then the PCB board. Be careful to avoid damaging the varnish and the insulating product that protects the board.
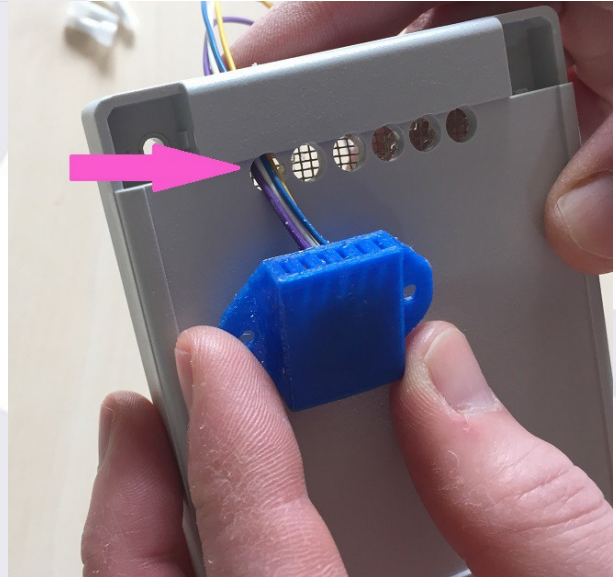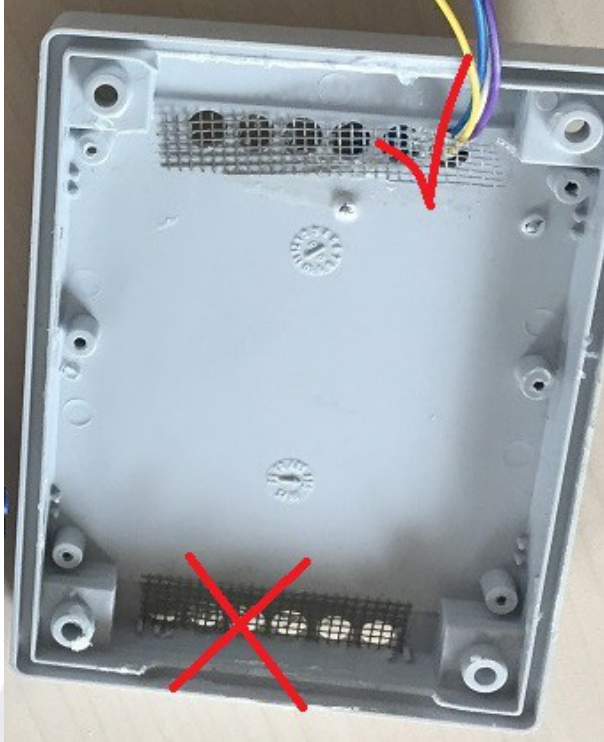

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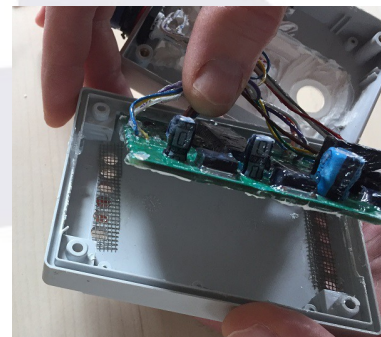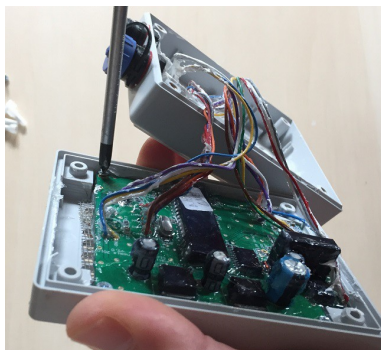
1   Finding the Serial Number in the AAG:
     * from the computer, see the "*Device*" Tab, in "*Constants Section*" is the first data.
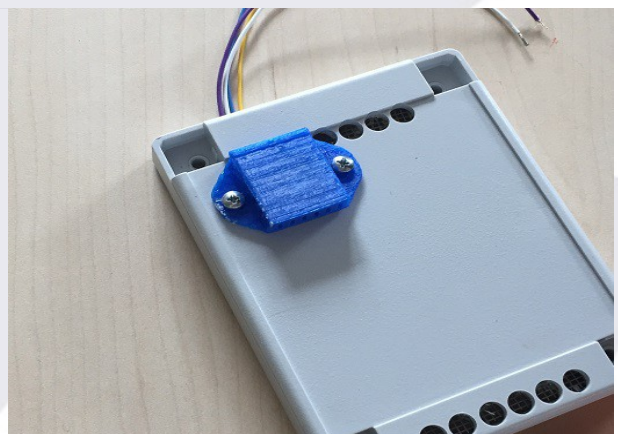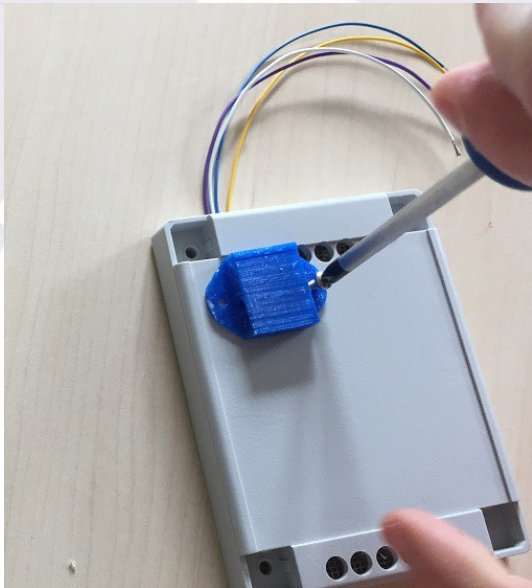   * from the SOLO: use this link <u>http://aagsolo/cgi-bin/cgiLastData</u> (if you don't see it, udpate the version first).

Once the back of the box is separated, insert the sensor cables through the first ventilation hole, as shown in the image..

Place the sensor in position and **screw it firmly** to the box[2].
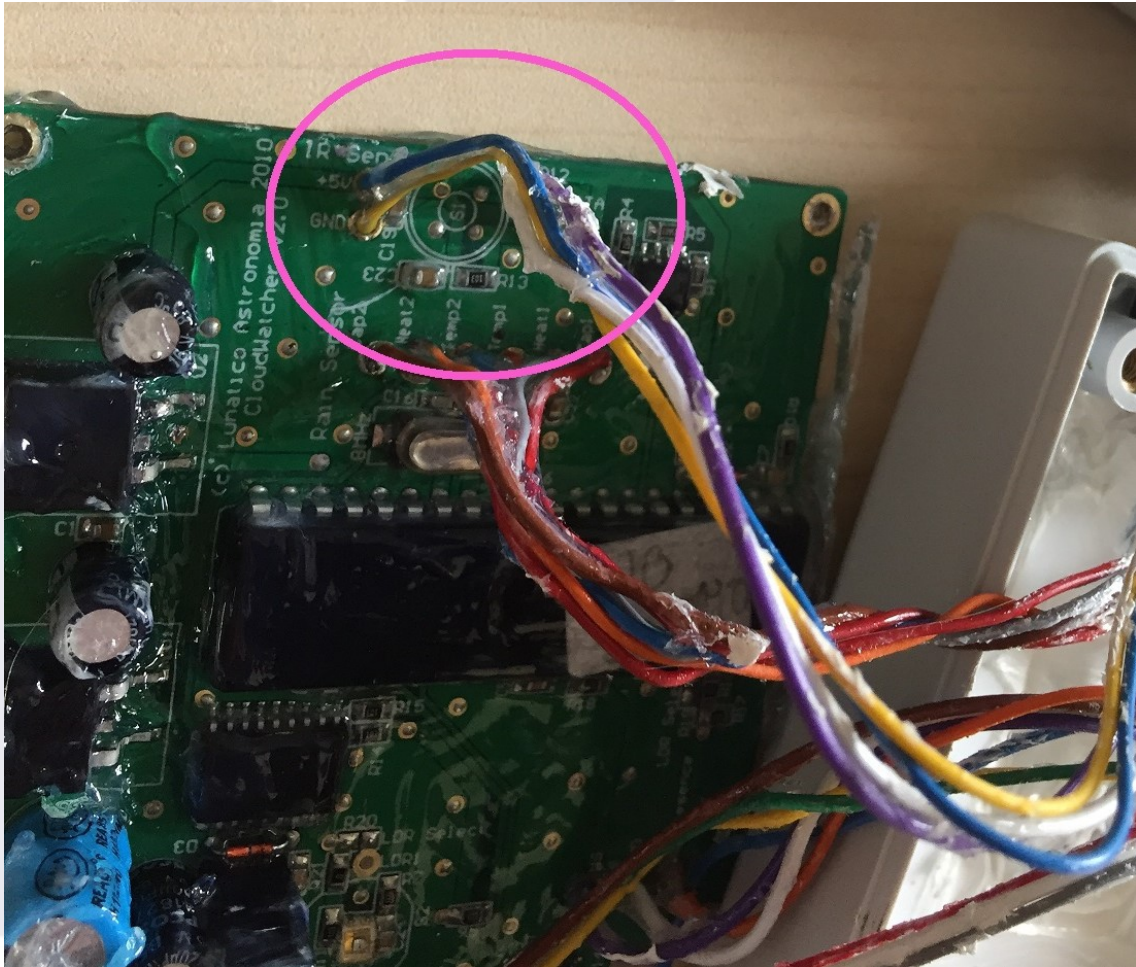

2   A power screwdriver makes this operation easier, but it can be done manually. Two extra screws are included in case one gets "jumpy".

A-2ⁿᵈ Step

Check the color code of the **IR sensor** of your CloudWatcher (the 4 cables that come from the upper end) - the colors should be as in the image, that is[3]:

1. Violet (or Green) (Data)
2. Blue (+5)
3. White (CLK)
4. Yellow (GND)

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[3]   If your unit is of the 700 series (No. 700 to 799), the wires will have the following code:

  1. Yellow (Data)
 2. Violet or Orange (+5)
  3. Blue (CLK)
  4. White (GND)

And the connections should be:
  ◦ Yellow PCB with cable Violet Sensor
  ◦ Violet PCB with Blue cable
  ◦ Blue PCB with cable White
  ◦ White PCB with Yellow cable

In case your unit has a different color code than these described, please , contact us before making the connections.

Cut the cables (at approx half length) and place them alongside the ones of the new **RHS**. Strip each cable for about 10mm or ⅜" .
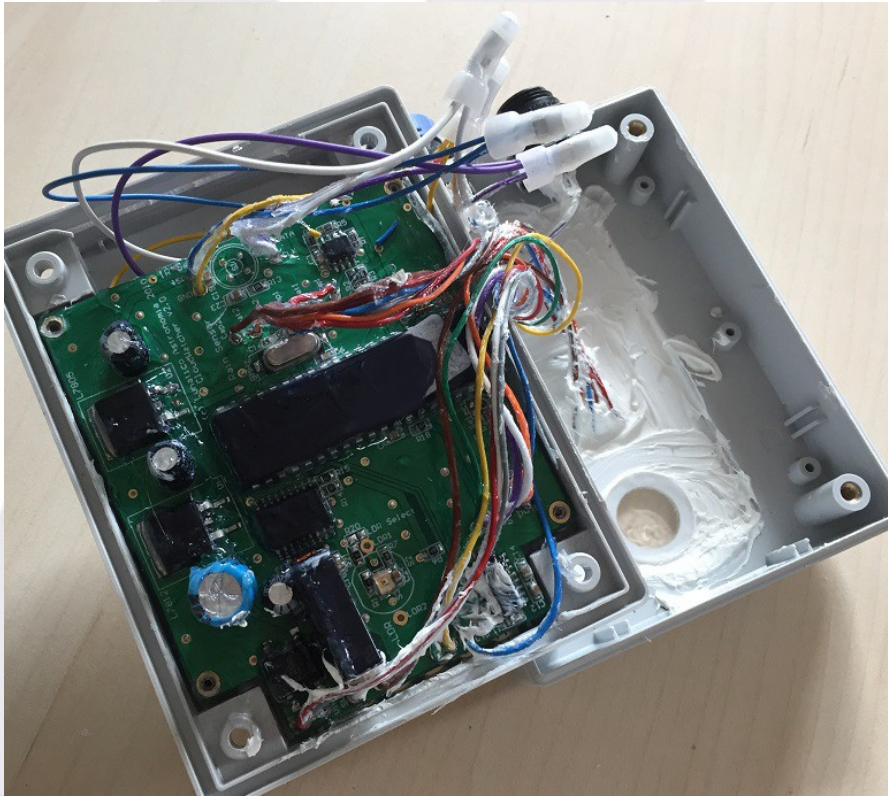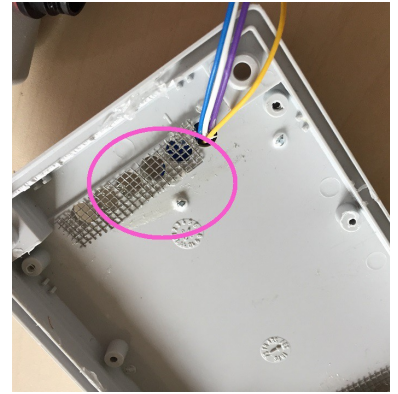
Join them, first twisting the exposed copper of each group of 3 cables of the same color, then with the supplied connectors (if you don't have a multi-tool as in the image, some pliers are good enough).
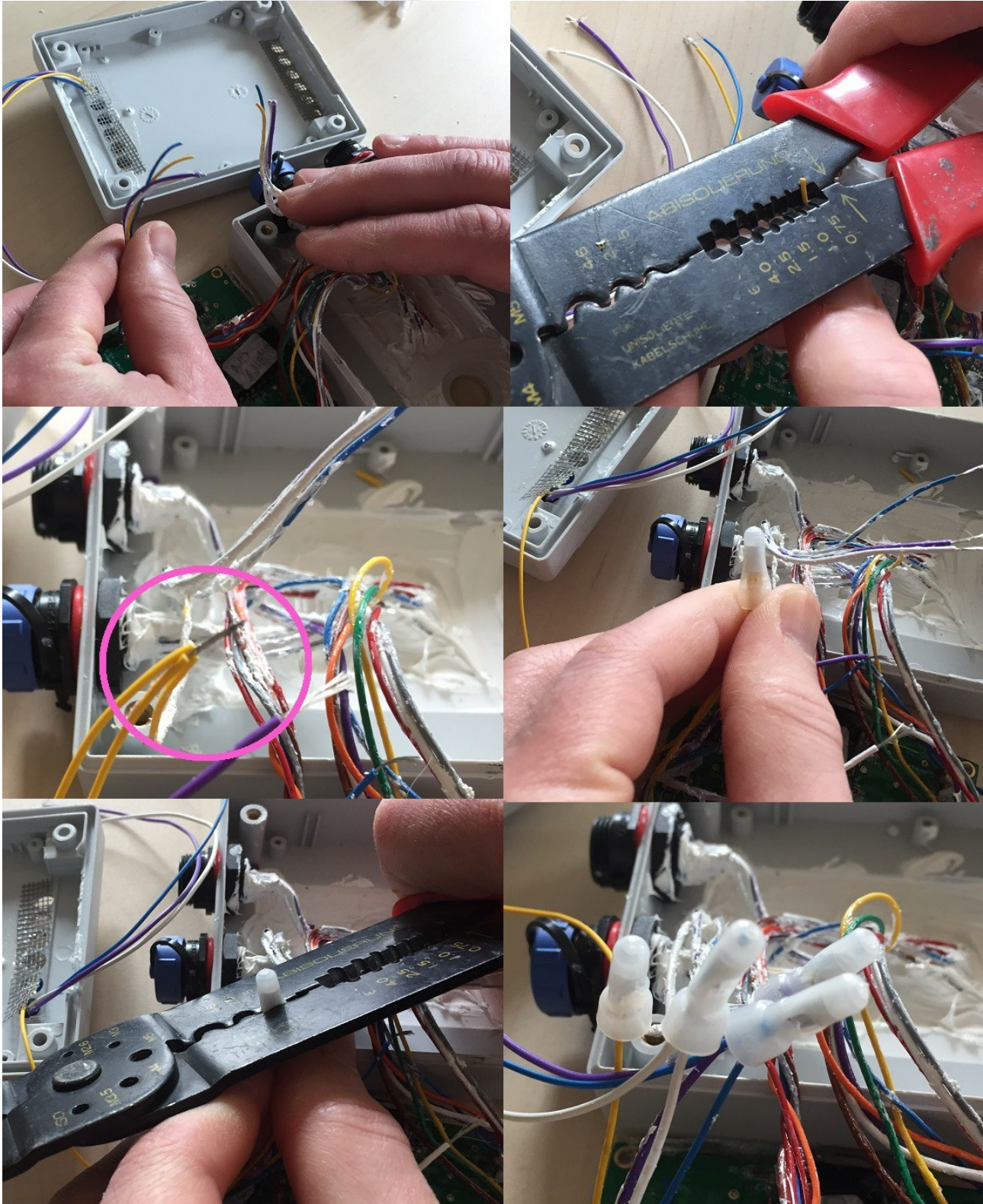
A-3rd. Step

Check that the anti-insect grid is properly positioned or, if needed, glue again to the box.

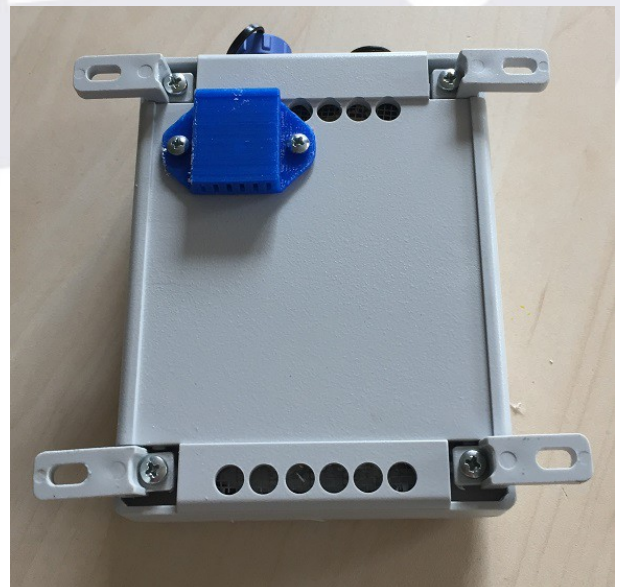Place the PCB in the box by routing the cables over it.

Attach the board to the box with the 4 small screws removed earlier.

Before closing the box, It may be wise to check the unit is working correctly now, see next point. Once confirmed, just replace the raiser sets and screws to close the box.

A-4th. Step

Update the unit firmware (it will need vers 5.7) and software from here.

Assembly in units with serial number 1206 onwards

If your unit is number 1206 or higher, you will need three screwdrivers: one regular size, phillips, and two small ones: flat and phillips


B-1st. Step

Remove the screws from your CW box and then the blue washer from the back (it is glued with putty and should be easily released, just insert the tip of the flat screwdriver and bend a bit).


Once the box is opened, remove the screws holding PCB (board) carefully, removing the minimum amount of varnish and the anti-humidity product that protects the board. You must remove the 4 screws from the board and the one that fixes the voltage regulators to the box (see images).
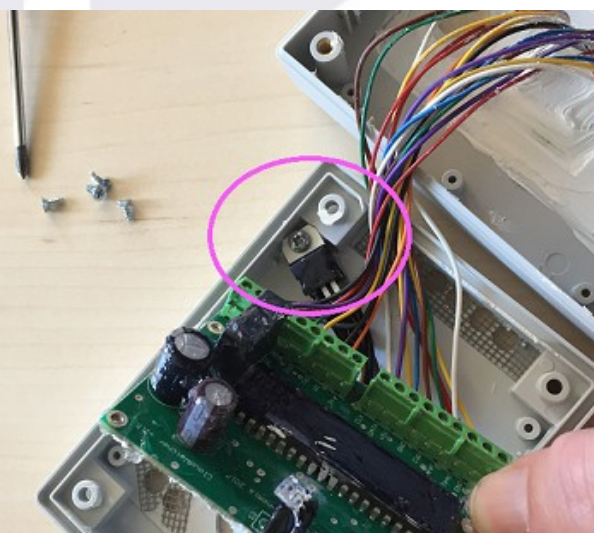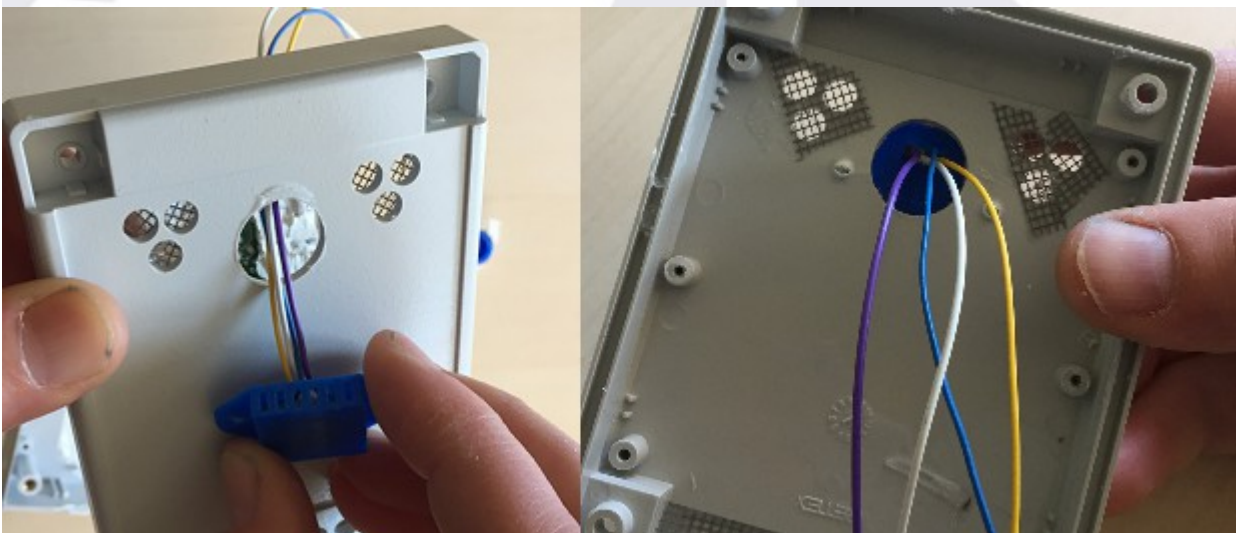
B-2nd Step

Once the board is separated, carefully remove the blue separator that protects the humidity sensor in the board (easy again, just a tad of lateral force).
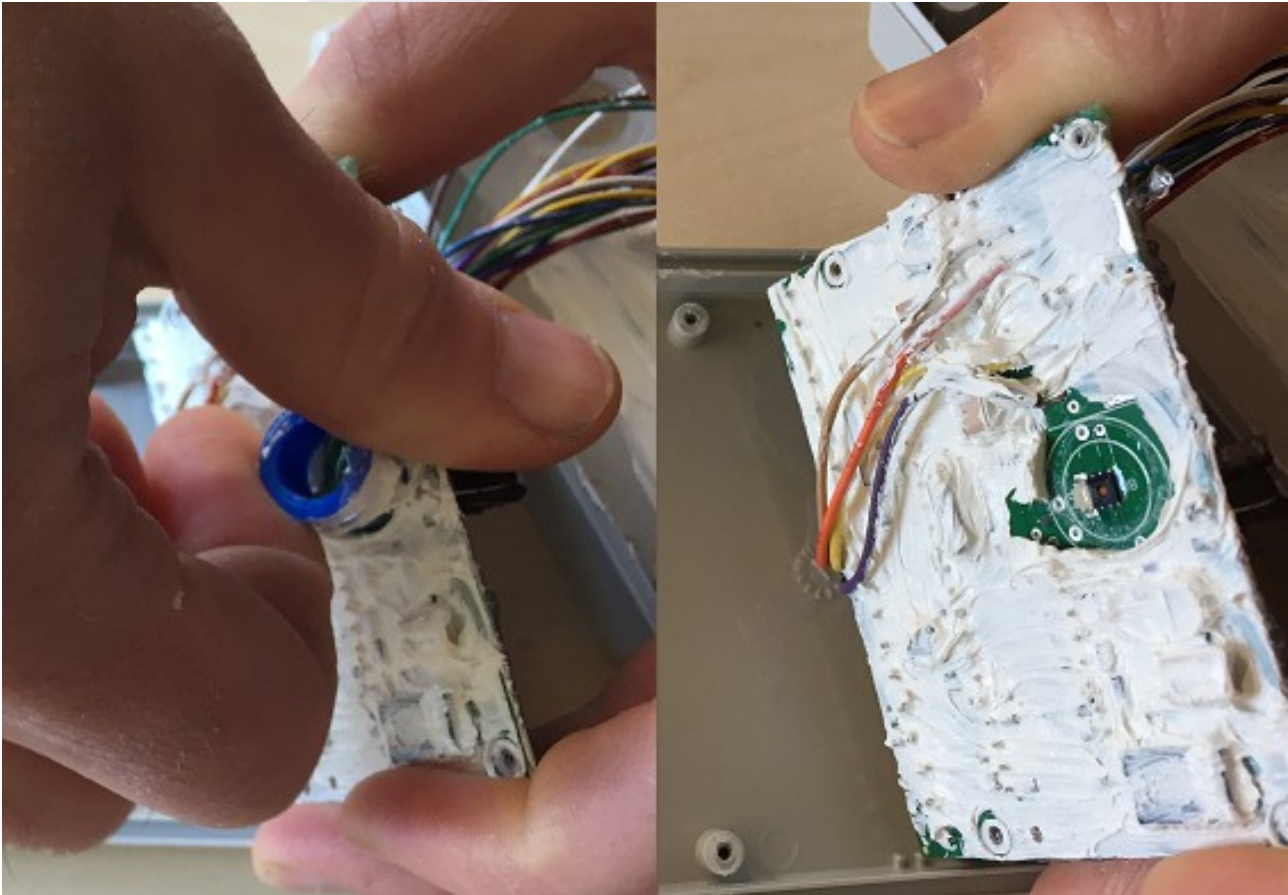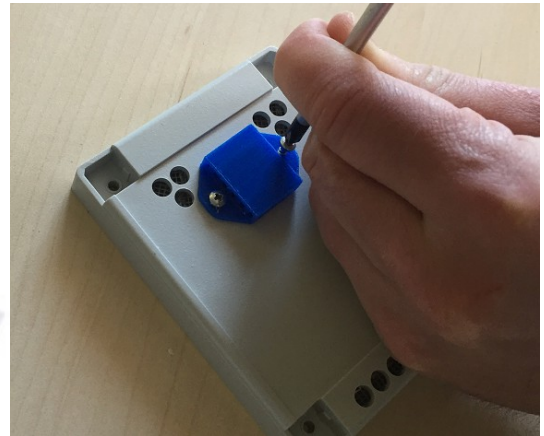

B-3rd. Step

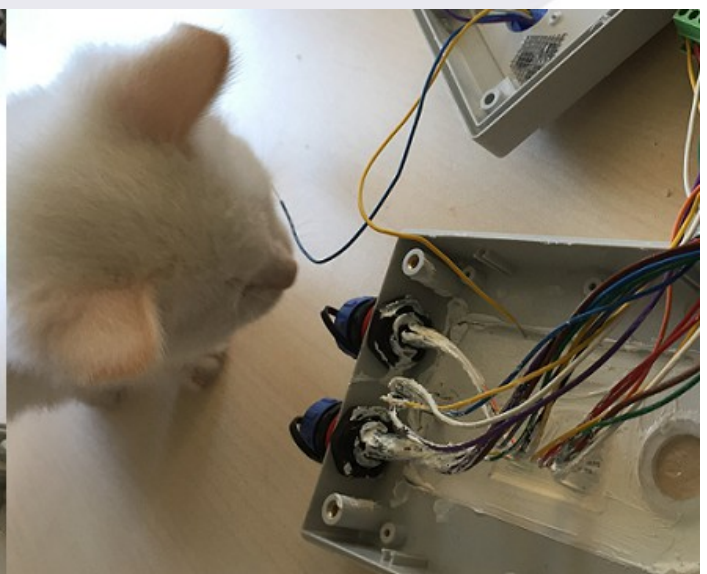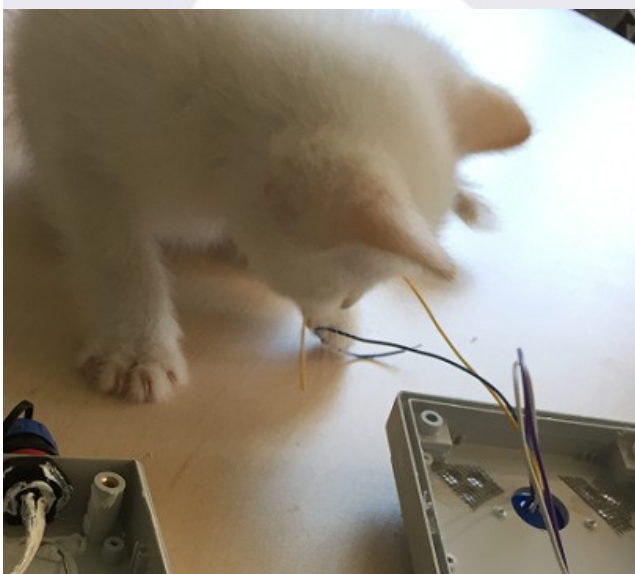Insert the **RHS** cables through the large hole that has been left free, as shown in the image.
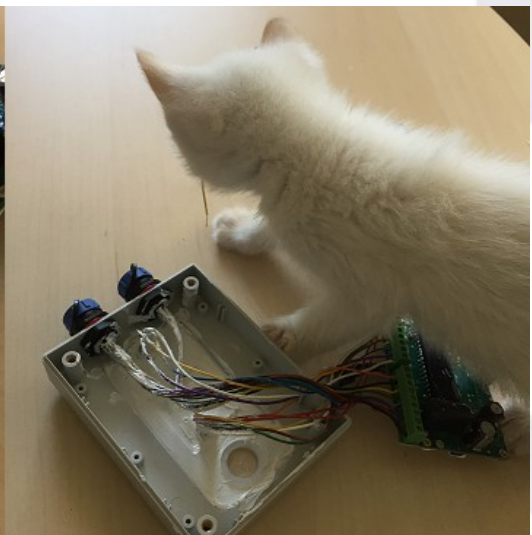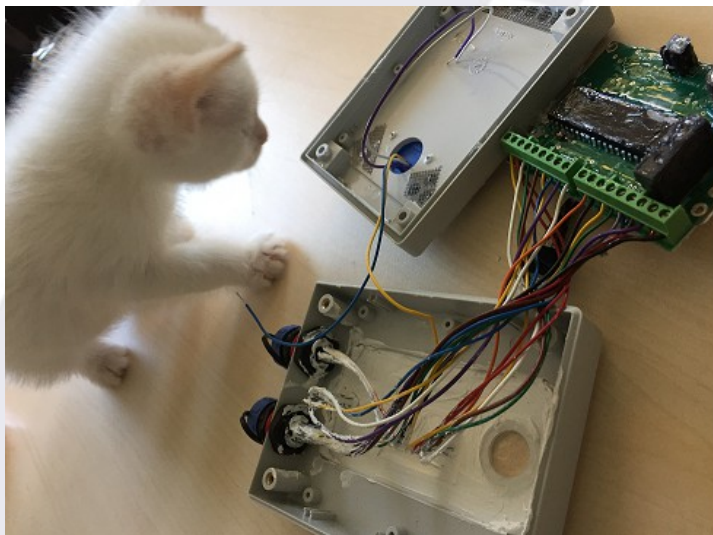
Place the sensor in position and **screw the piece firmly** into the box[4].

B-4th. Step

Remove the kitten prior to continue working.

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4   A power screwdriver makes this operation easier, but it can be done manually. Two extra screws are included in case one gets "jumpy".

B-5th. Step

It is time to join the **RHS** wires with the **AAG IR sensor**, they are towards the middle of the board and follow the order:

1. White (CLK)
2. Violet (or Green) (Data)
3. Blue (+5)
4. Yellow (GND)

Unscrewing each color, join the wires (first twisting together the exposed copper), insert them in the corresponding hole and screw again.[5]

Gently check that the cables are firmly fixed to the PCB.

<u>Very Important</u>: Units 1206 to 1226 have the green connectors varnished, so the cables can not be unscrewed. Instead, <u>cut them and join with the connectors, as shown in Step A-3th.</u>

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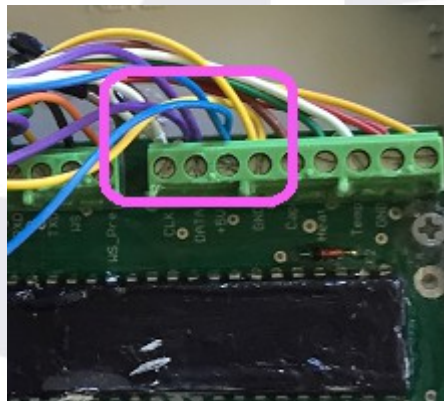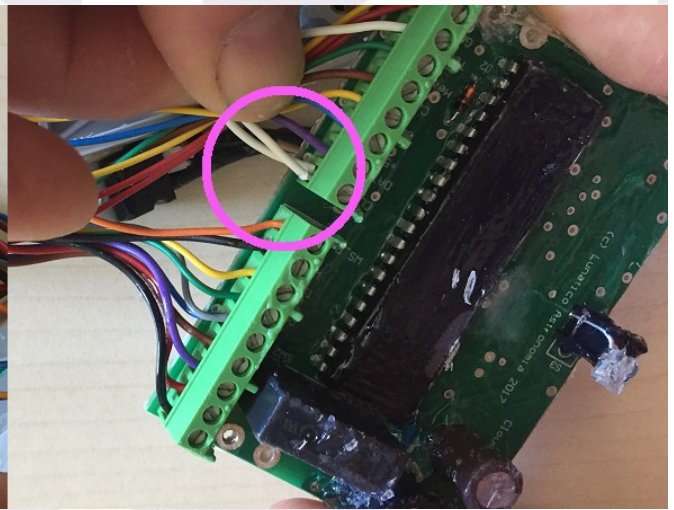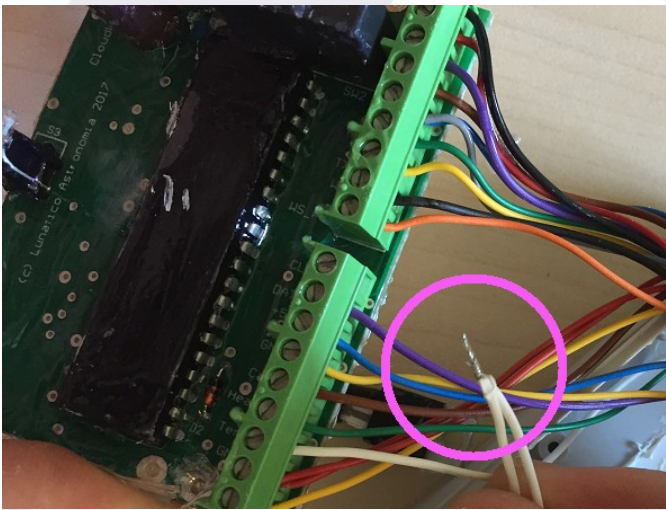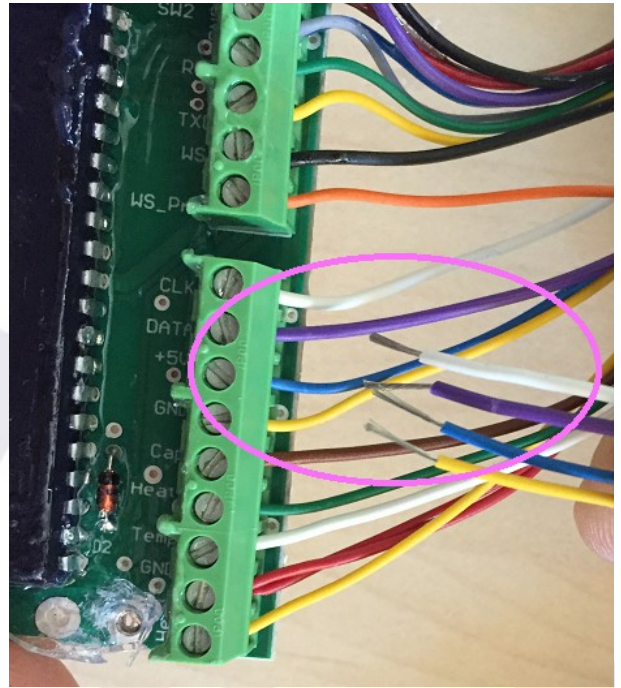
[5]   Sometimes, when loosening the screws in the green terminal plugs, the part that holds the cable does not move - so the cable is not freed. In this case, press firmly the screwdriver on the screw, give a sharp (but light!) blow downwards on it until you hear the "click" and unscrew again.

B-6ᵗʰ. Step

Finally, screw the PCB back to the box (do not forget the voltage regulators, see image) and place the back cover with its screws and its washers.

Before closing the box, It may be wise to check the unit is working correctly now, see next point. Once confirmed, just replace the raiser sets and screws to close the box.
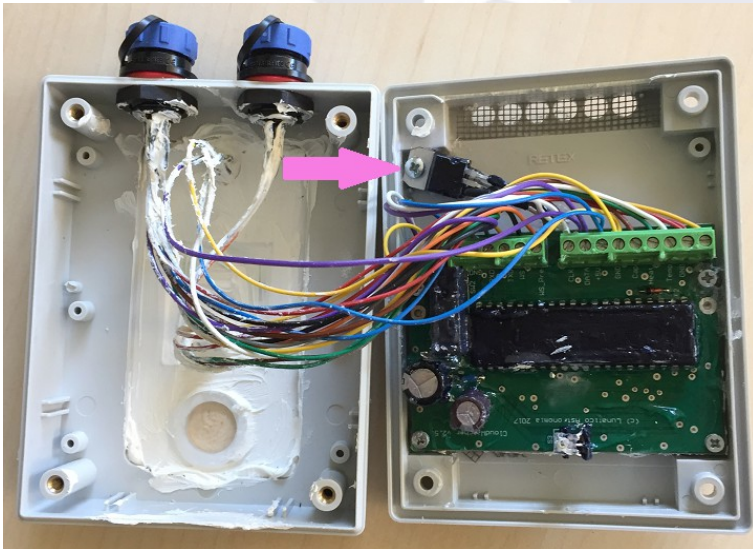
B-7ᵗʰ. Step

Update the unit firmware (it will need 5.7 AAG version and 2.0 SOLO version) and software from here.

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