Installing the RH/AP sensor on the Cloudwatcher

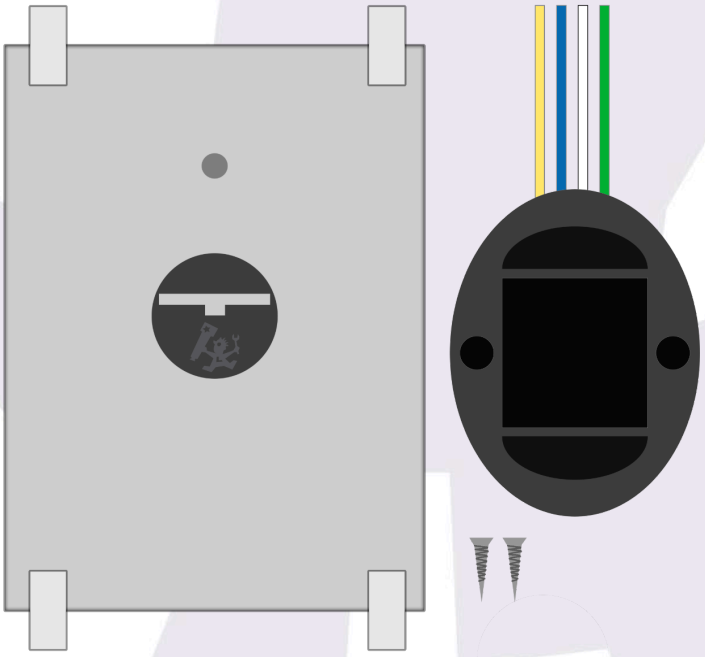
The RH/AP (Relative Humidity/Atmospheric Pressure) sensor, also known as HS/AP sensor (Humidity Sensor/Atmospheric Pressure sensor) is an excellent addition to the Cloudwatcher. If you received this part separately from the Clouwatcher or want to change your existing sensor, please follow these instructions.

What do you need?

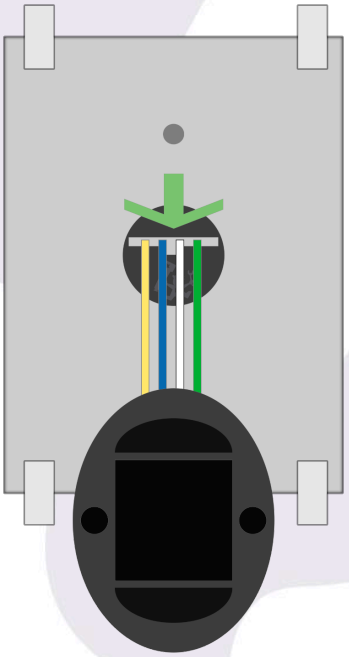
An **electric screwdriver**.
A **flat screwdriver**.
A **glue gun with hot glue** (if needed)

Steps

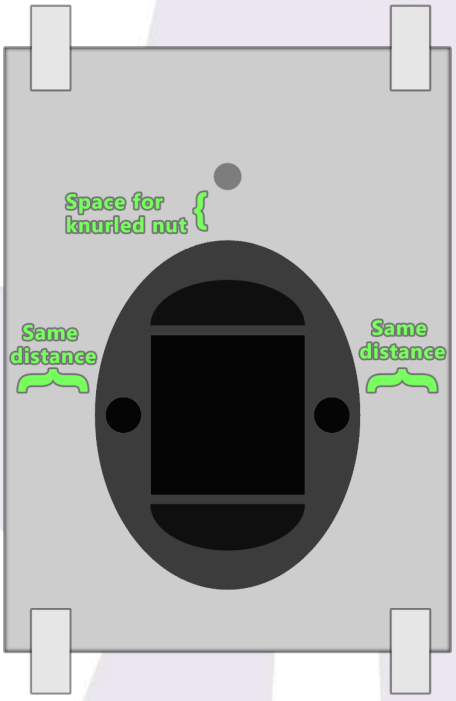
1. To safely install the sensor, please **remove the board from the box by disconnecting the cables.** This will leave you with the box bottom only. This will leave you with the following situation:



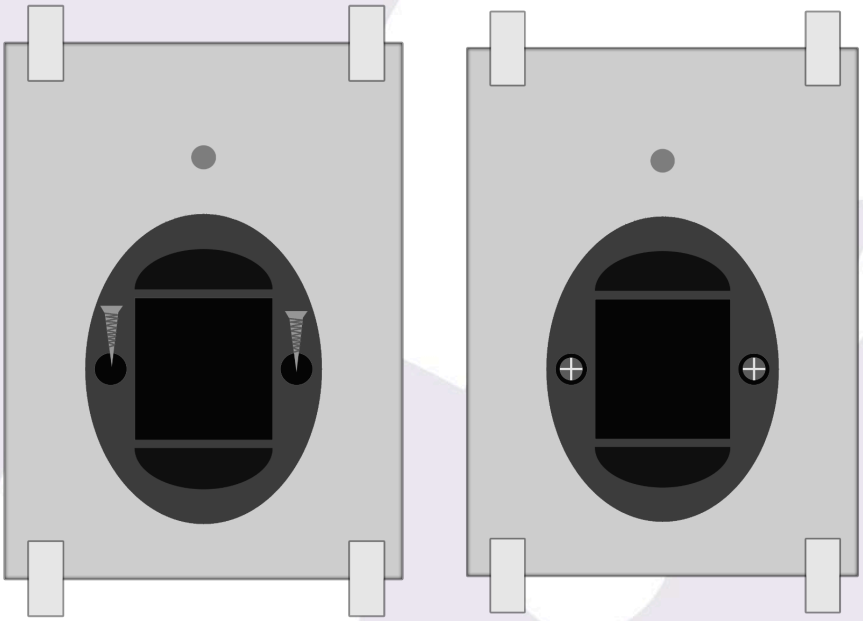
2. **Introduce the cable into the box**. You'll notice that there is small room for the cables to enter. You'll need to squeeze them a little bit.



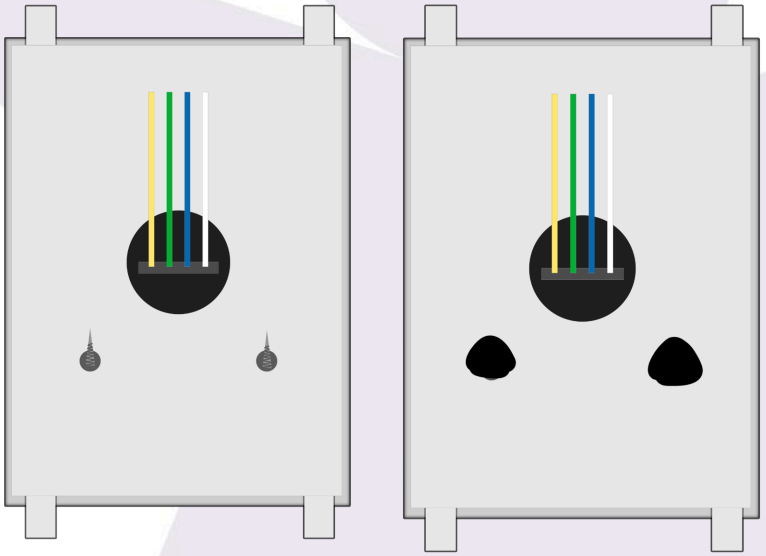
3. **Centre the sensor this way**, leaving space for the knurled nut above it:



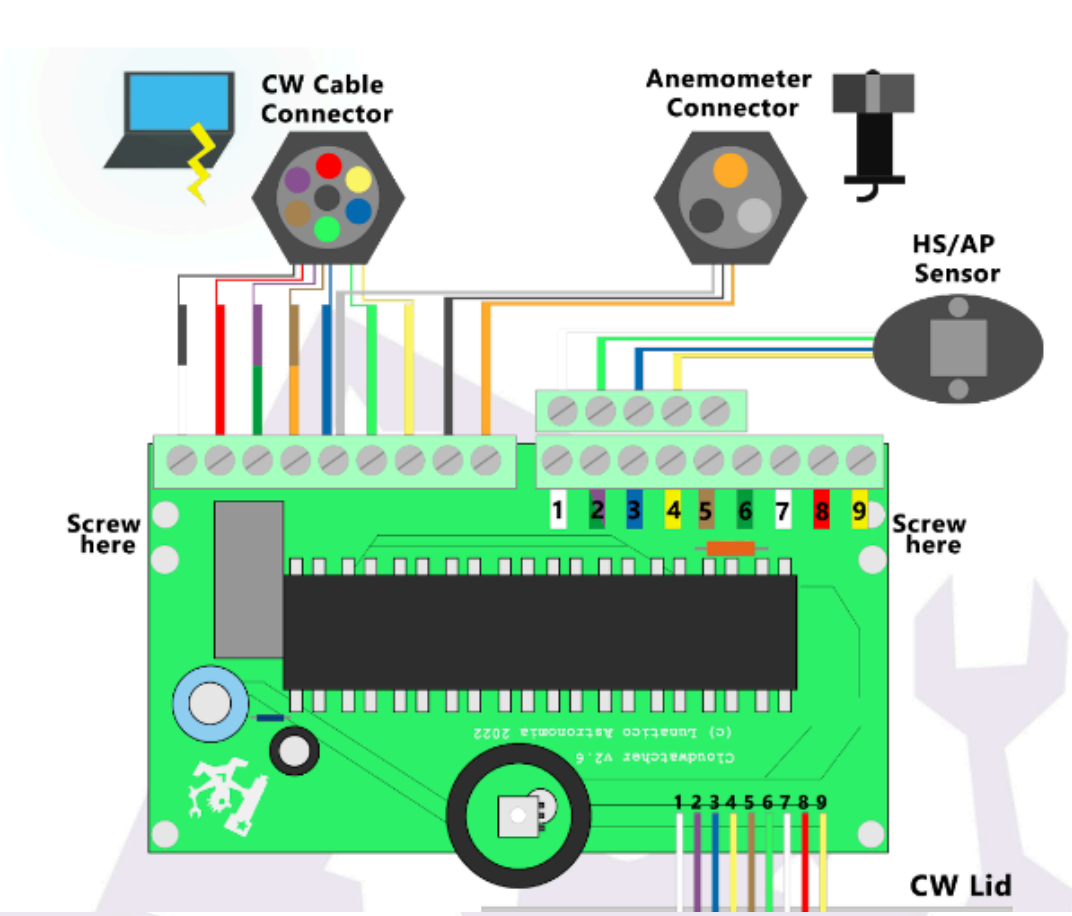
4. **Insert the screws (sometimes you'll find them already inside the sensor holes).** Make sure the sensor stays centred and start screwing with the electric screwdriver. You'll need to **push a little bit** (not too much) for the screw to start breaking through the box.



5. **Turn around the box**. You'll notice that the screws might touch the board when installed. Make sure that your board will sit and be screwed on top of the raisers. If you are missing one or both raisers, use the provided ones to install the board. You can glue them with Loctite® or any other equivalent glue. If you have access to it, please use the glue gun with hot glue to cover the screw tips. This way you'll avoid any short circuit caused by the screws.



6. **Connect the sensor to the board.** Follow this scheme to properly connect the sensor to the PCB. In case your CW only has one row of green connectors, you should join the RH/AP sensor cables to the lid cables with the same colour scheme.



Things to consider

1. **There are different board versions**. When connecting the sensor to the board you may find two different connectors: single row or double row. The single row connectors are the "older" ones, while the double row ones are "newer". Follow the scheme showing yours.

2. **Cable colours may vary.** Sometimes cables are not available in the same colours as we previously had used, resulting in a change of colour. We have included the most common colour changes (i.e. brown and orange), **but if you have any questions regarding your cables in particular, don't hesitate to ask us though support@lunaticoastro.com!**

3. **Avoiding the screws to make contact with the board**. To avoid short circuits caused by the screws used to fix the sensor to the box, please make sure that:
   - Your board has risers to have a safe gap between the screws and the board.

- Use the provided risers if you are missing them.
- Use hot glue (or other method) to **safely** isolate the screws from the board

4. **Centre the sensor and leave a gap for the nut**. Your sensor will better fit into the Cloudwatcher mount if it's properly centred. Also, leave a gap between the sensor and the nut that ensures the closing of the Cloudwatcher.