LOGGER INSTALLATION INSTRUCTIONS ON DJI PHANTOM 4





Stage 1 Logger installation instructions on DJI Phantom 4.

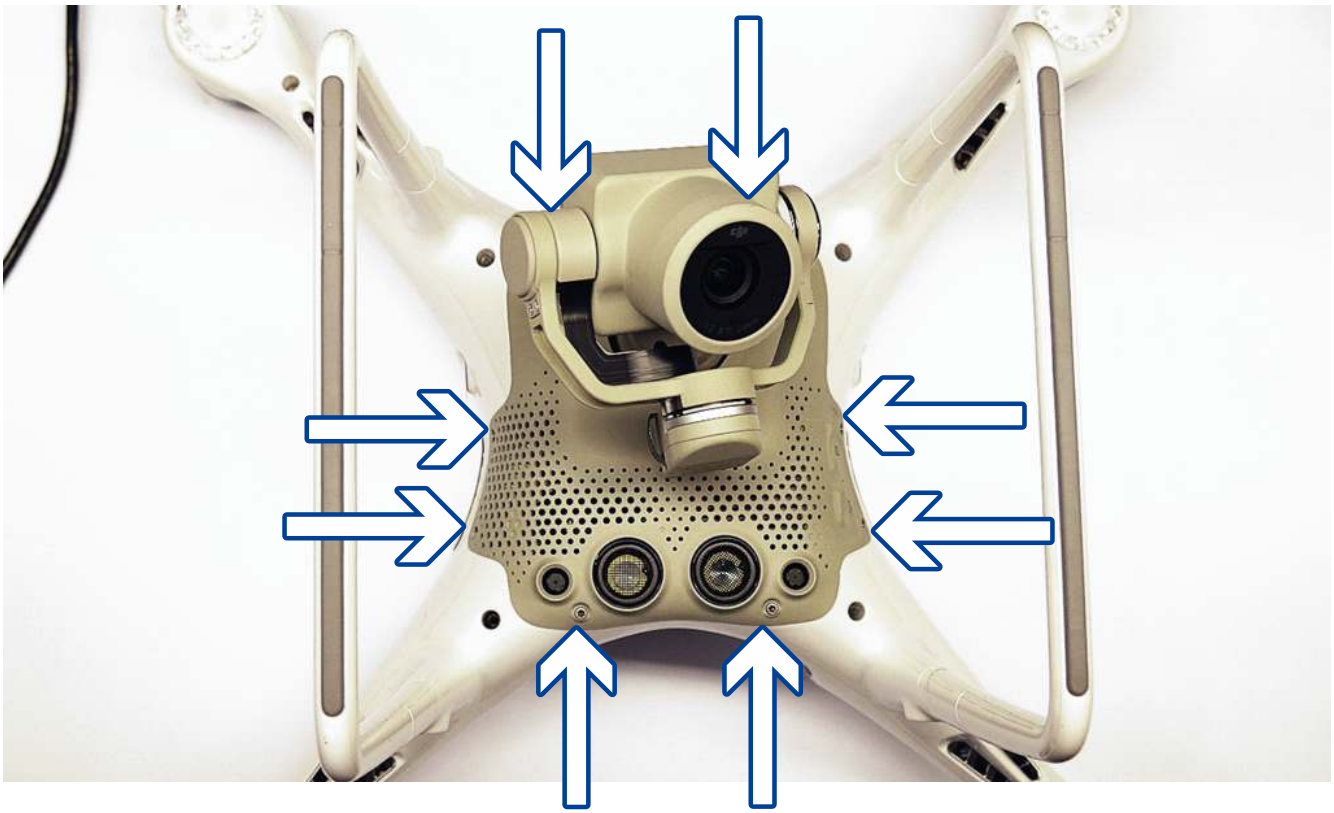
Tools:

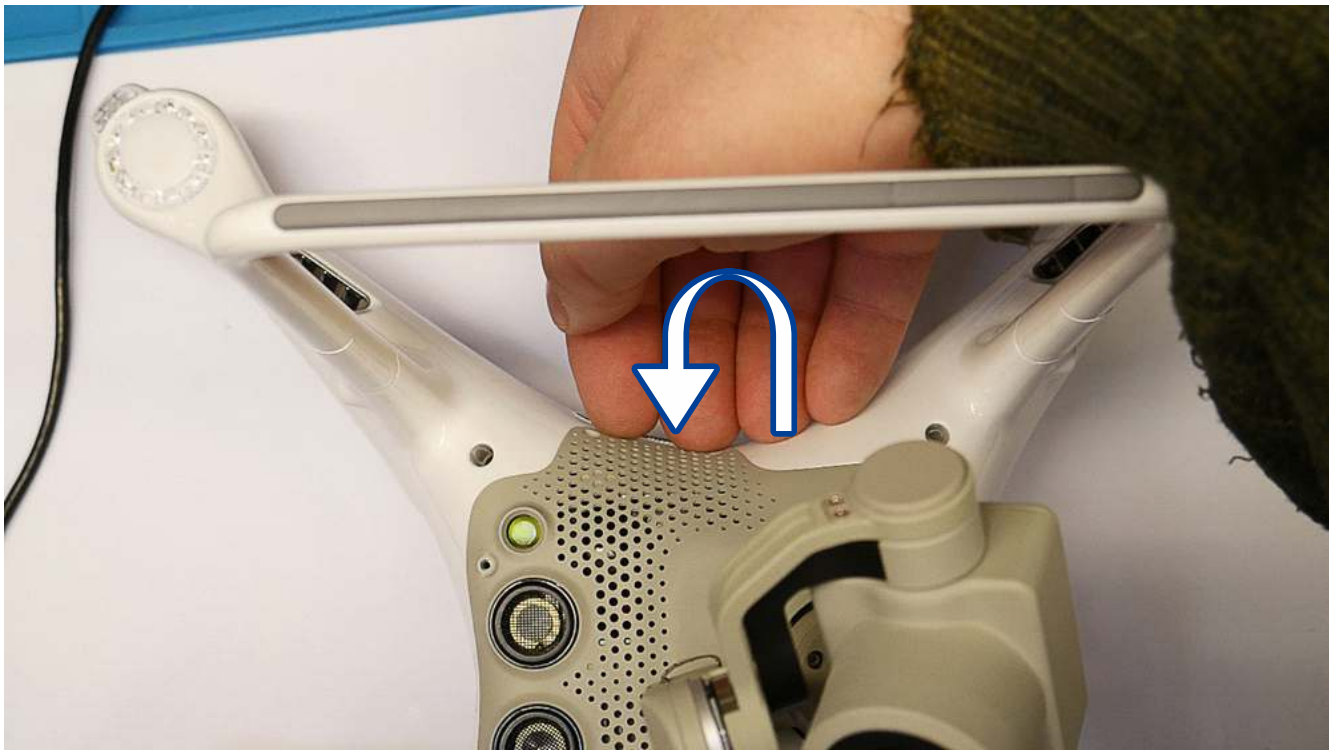
- Hex screwdriver 1.5mm.
- Phillips screwdriver 1.5mm.
- A set of flat blades for opening small electronics
- Drill
- Drill Ø 4mm

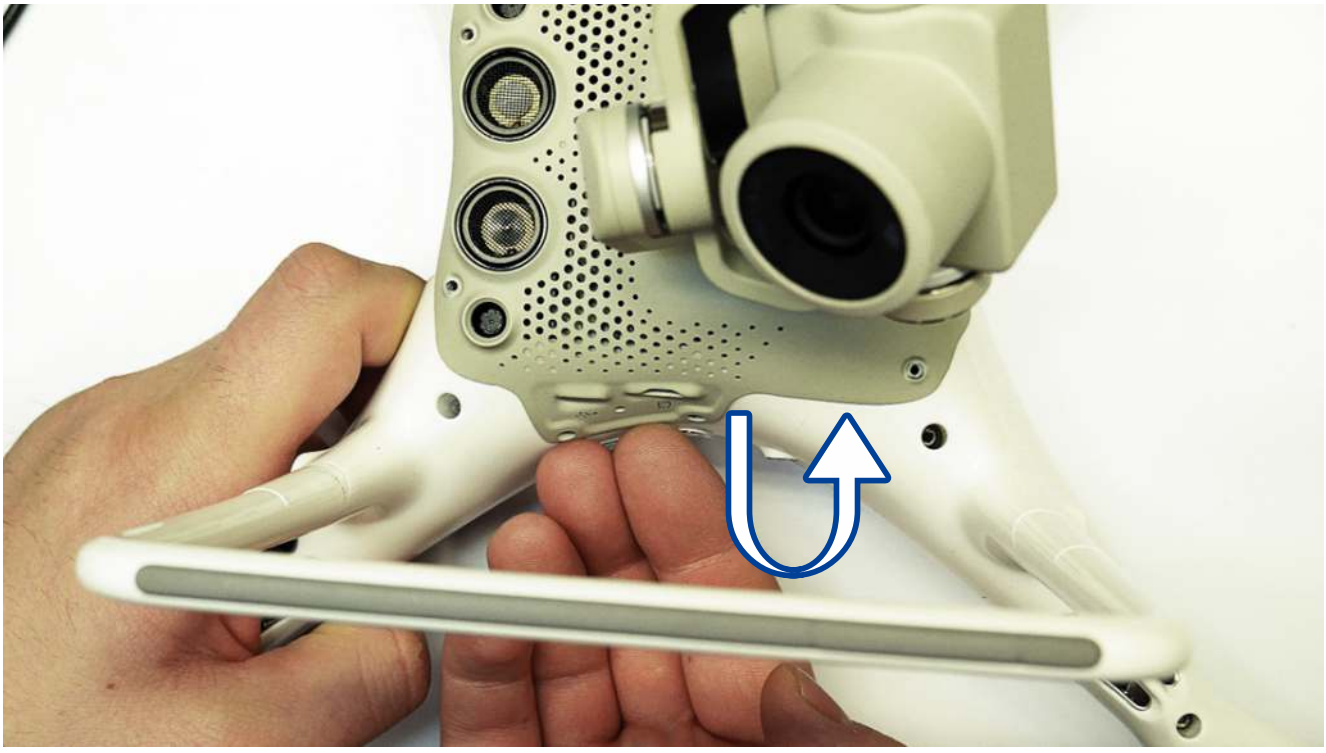
Working process:

1. Remove battery and SD card
2. Remove suspension protection
3. Remove suspension module:

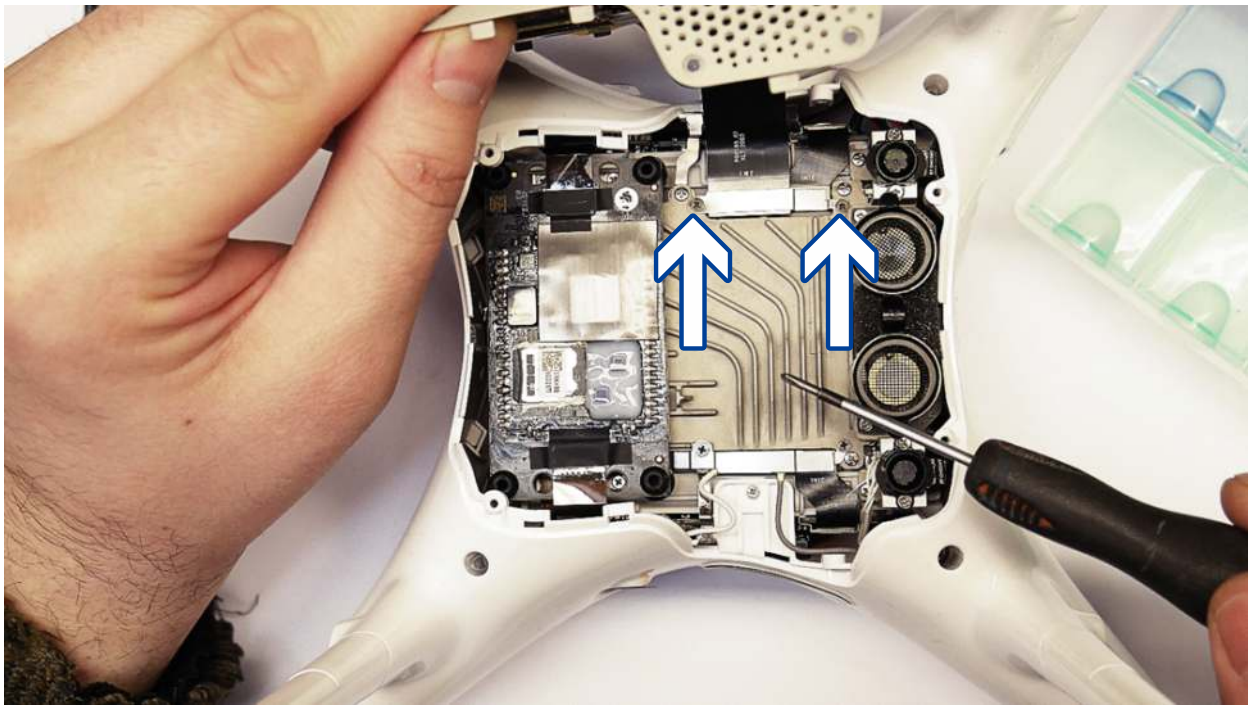
After unscrewing 8 screws, take out the module with gentle prying movements.

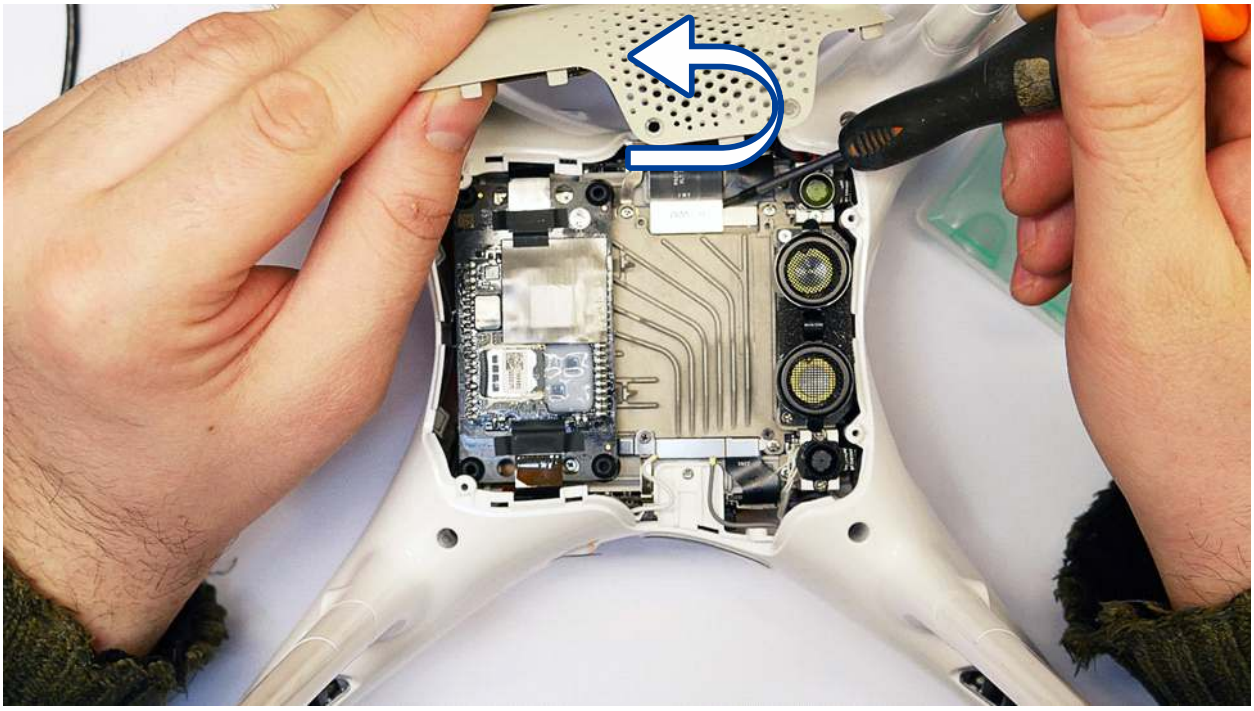




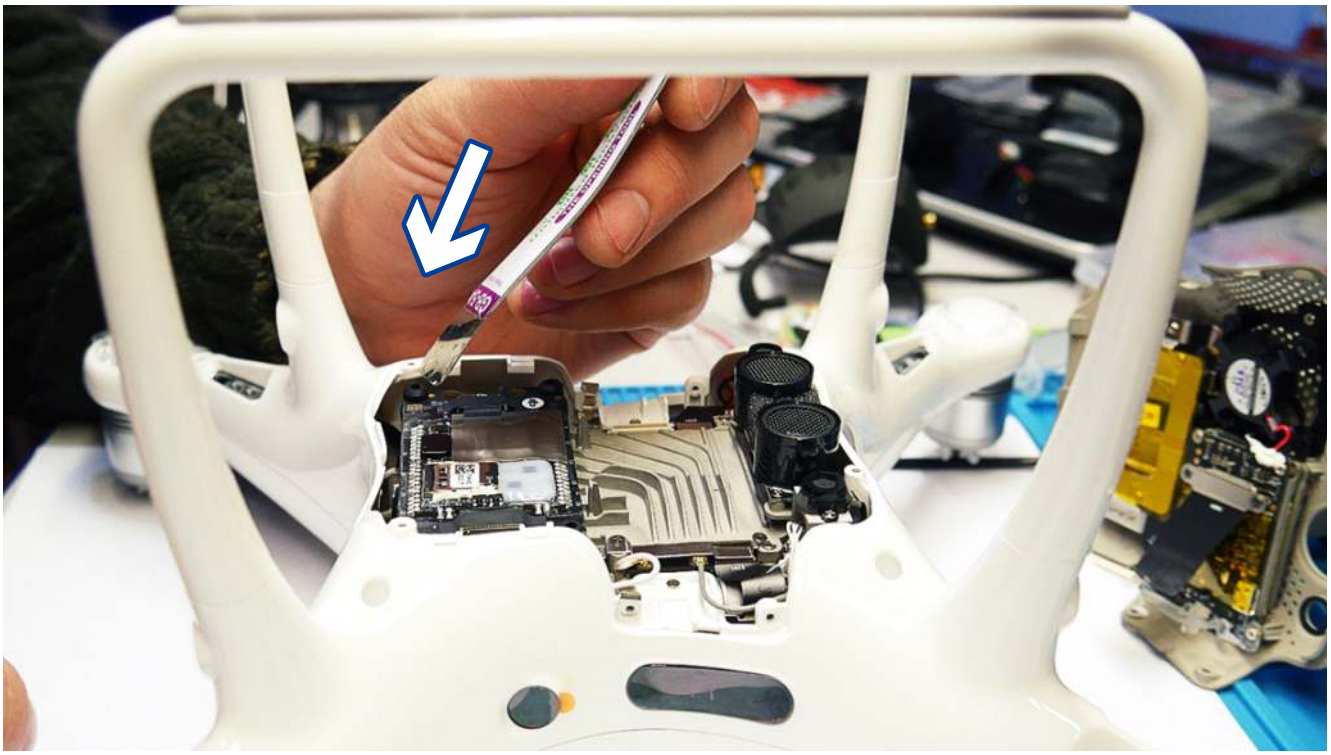


Please note that the module is daisy-chained to the main board of the quadcopter.
To disconnect the module, you need to unscrew the retaining bar and remove the ribbon cable connector from the socket.

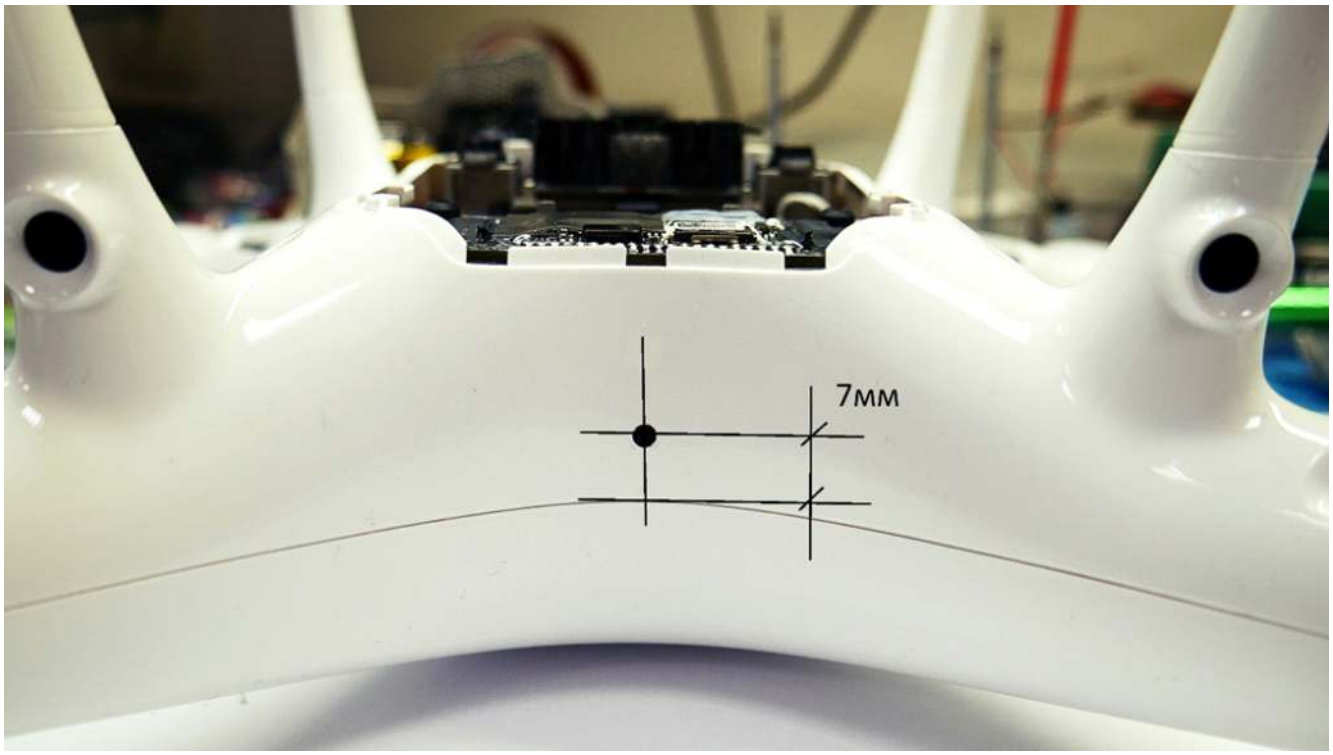


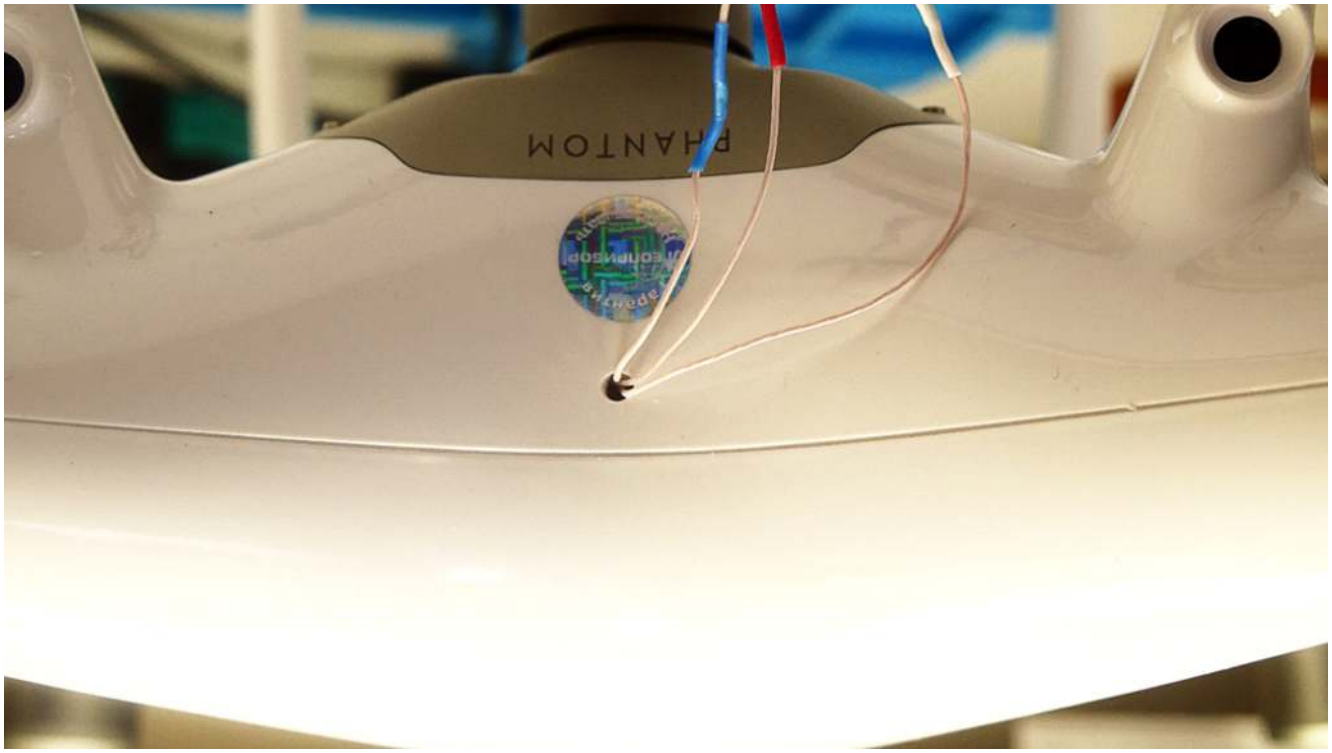


4. Mark a point on the drone body to drill the hole.
Use a metal spatula or ruler to protect the internal parts from mechanical damage
then pass three wires (MGTF 0.12 20cm) into the resulting hole, they will need to be connected to the internal wiring. Prepare the wires, see step 2.




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Stage 2 Soldering the signal wires and power wires for the logger.

Tools:

- Soldering iron or soldering station
- Thermofan
- Technical microscope
- Technical scalpel
- Hot glue
- Tweezers
- Wire insulation stripper
- Side cutters

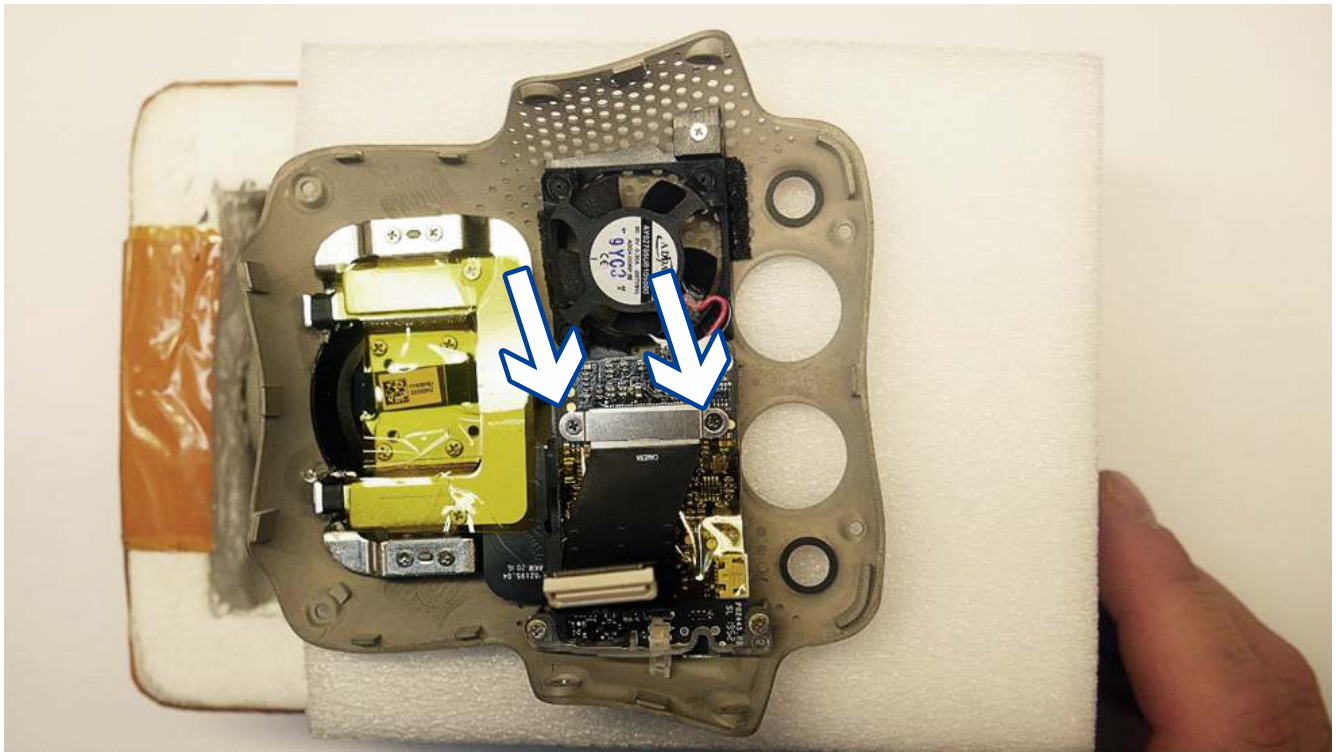
Materials:

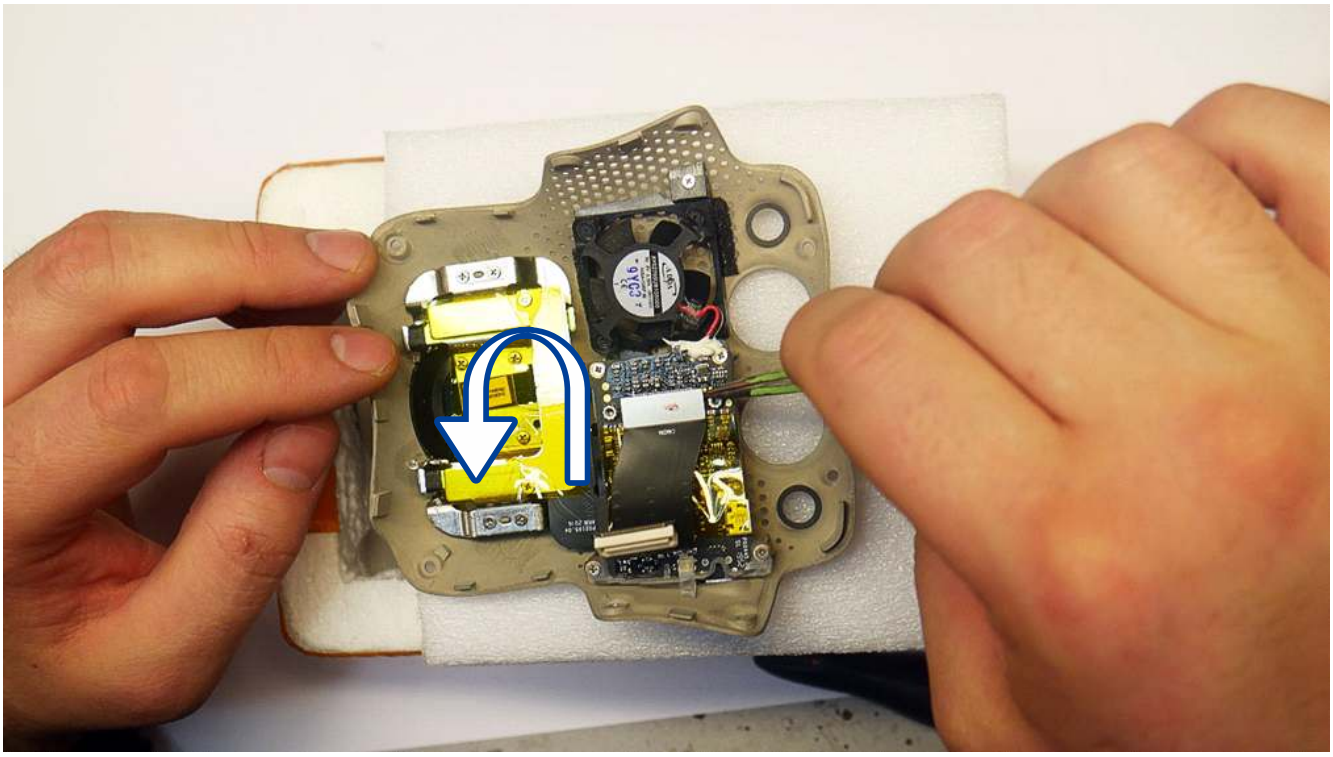
- MGTF cable 0.03 mm² 1 pc. Length min. 20 cm. (Signal)
- MGTF cable 0.12 mm² 2 pcs. Length min. 10 cm. (Power)
- MGTF cable 0.12 mm² 3 pcs. Length min. 20 cm. (Pit., Signal.)
- Heat-shrink tube Ø 1 mm.
- Solder POS-61
- Flux: rosin or special gel. No-clean flux
- Sopropyl alcohol or nefras Galosha for cleaning
- Cotton buds

Working process:

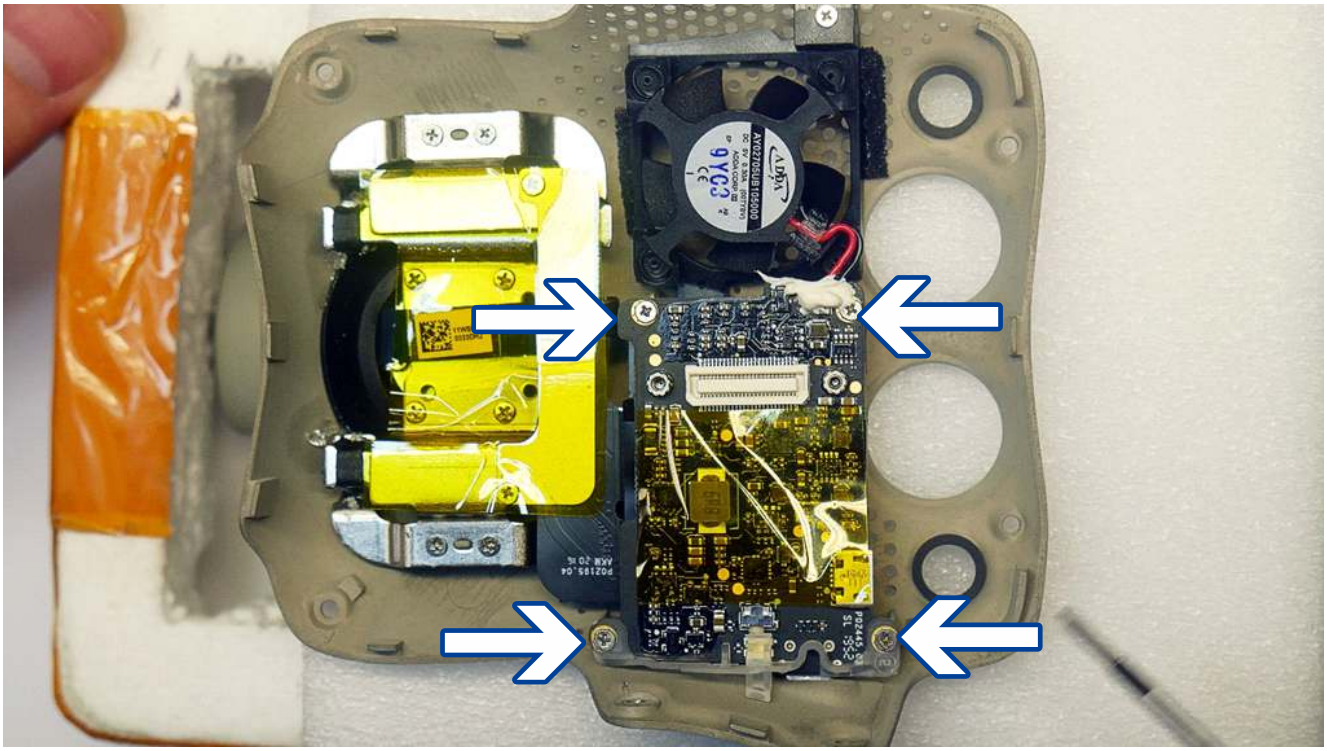
1. Preparation of wires:
- Remove the insulation from the wires by 1-3 mm at both ends
- Rinning bare wire ends
- From one end of the signal wire (MGTF 0.03), cut the bare part to 1 mm.

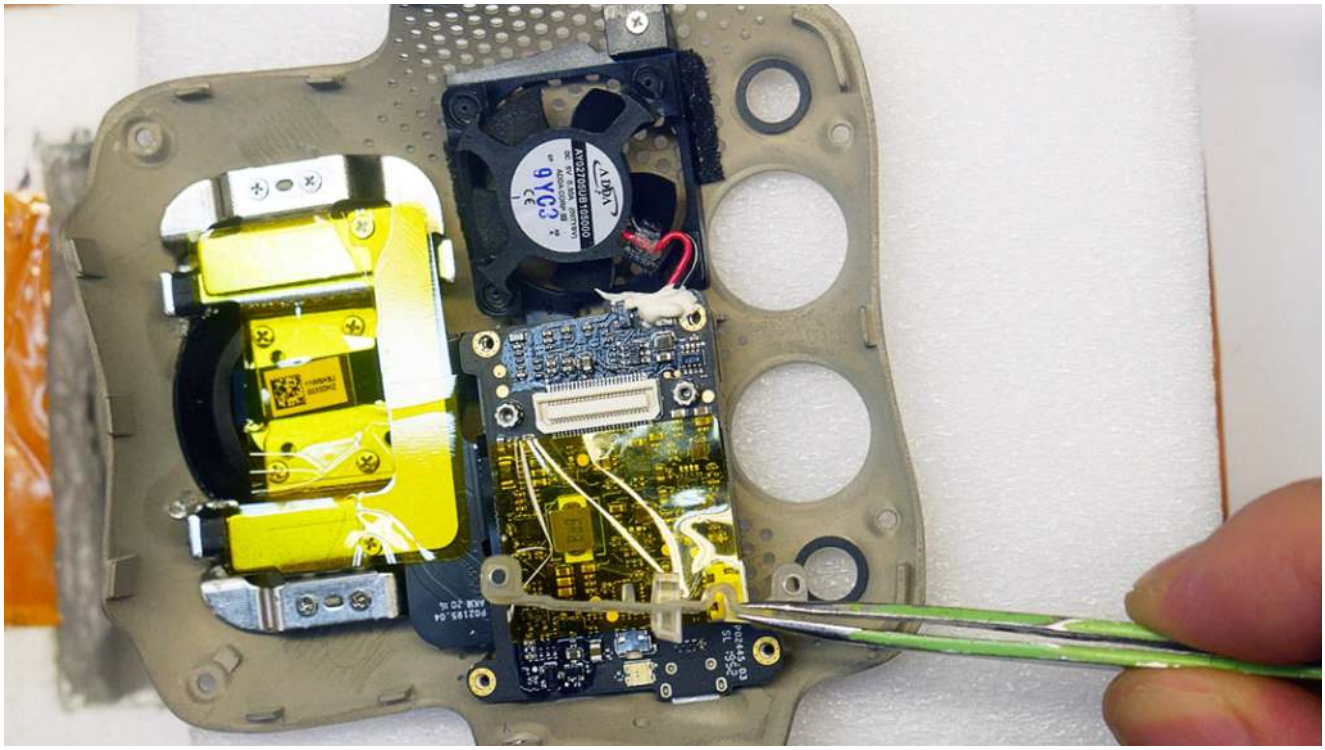
2. Preparation of the quadcopter gimbal module
.
- Remove the ribbon cable from the board by unscrewing the fixing bar.



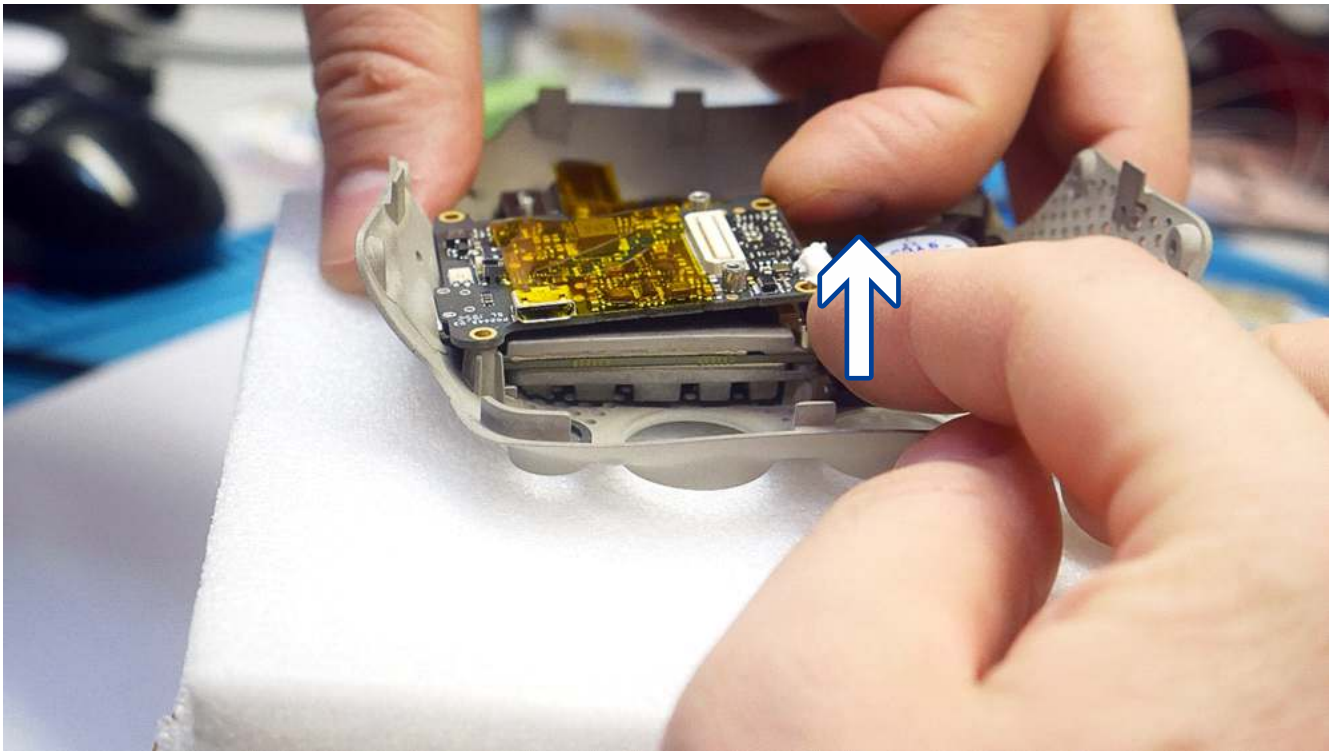


3. Remove the 4 screws securing the top of the board and button-light guide:

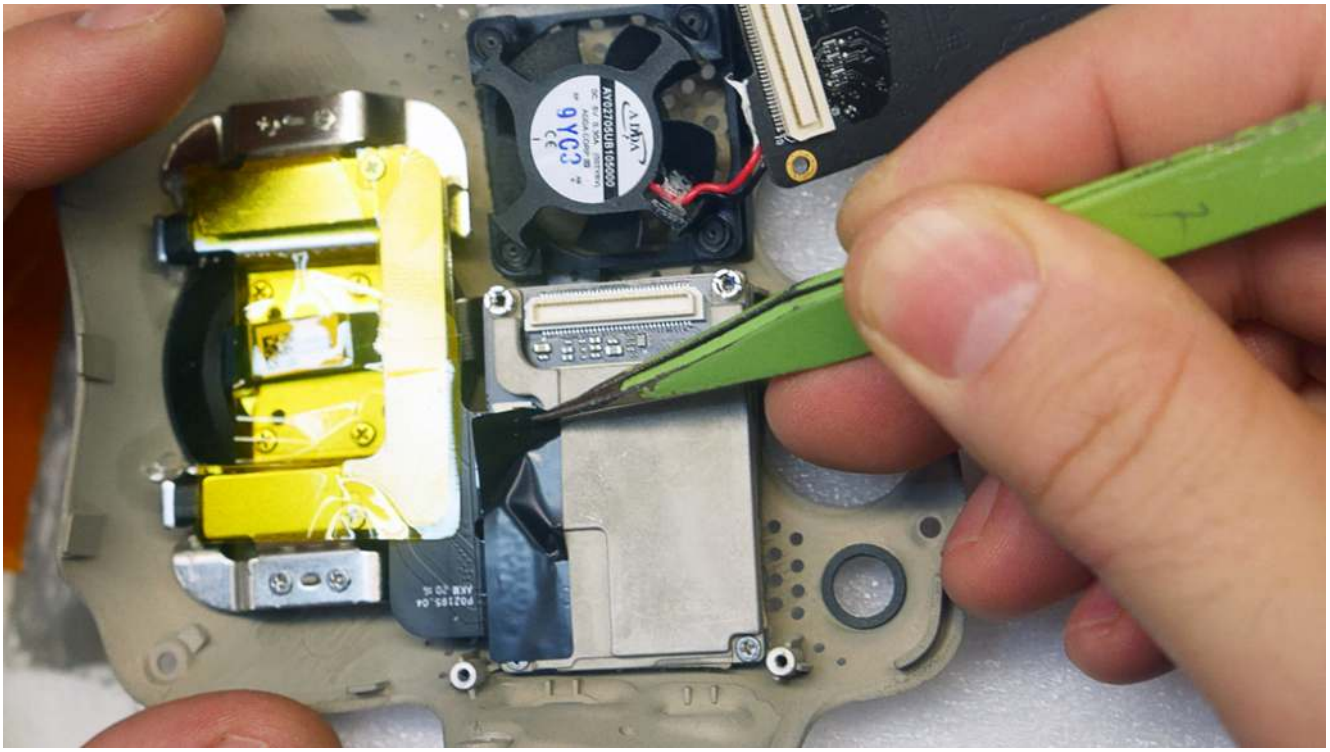


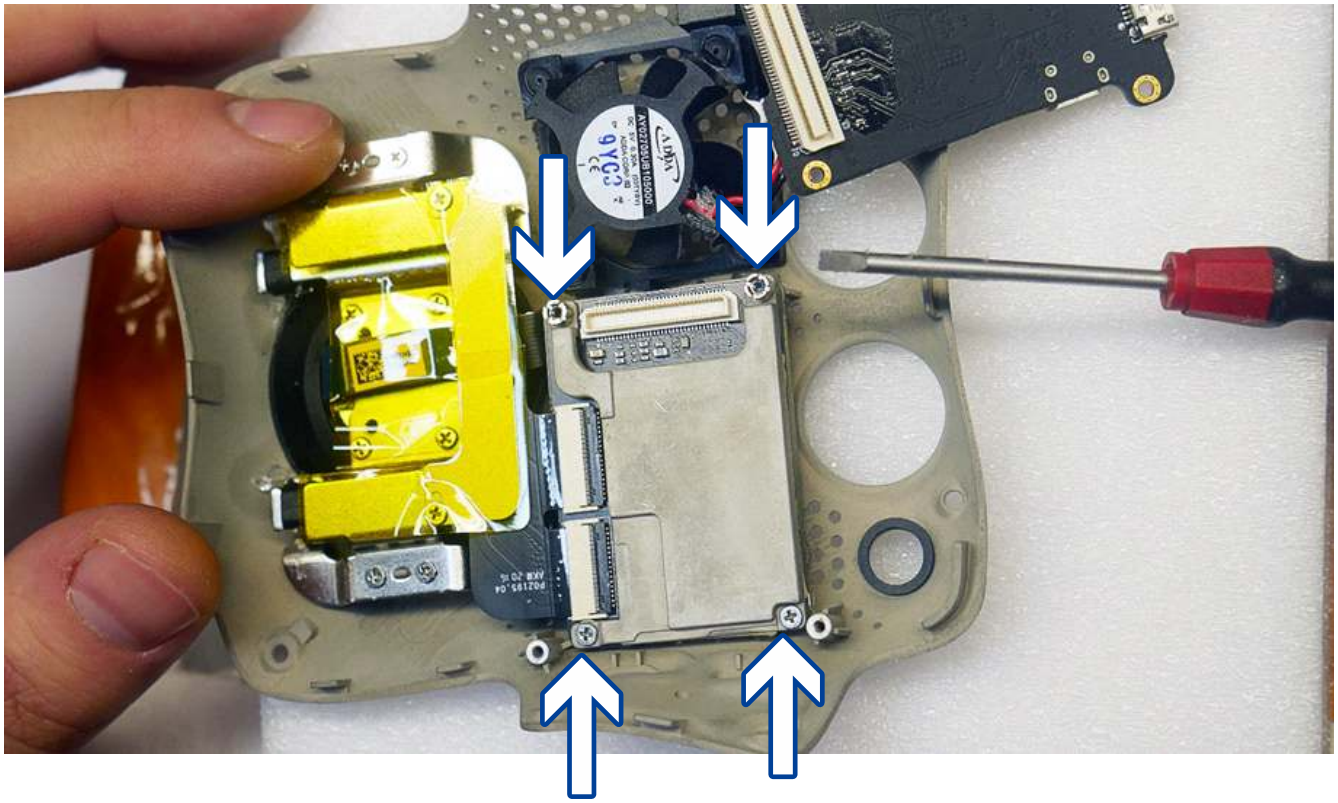


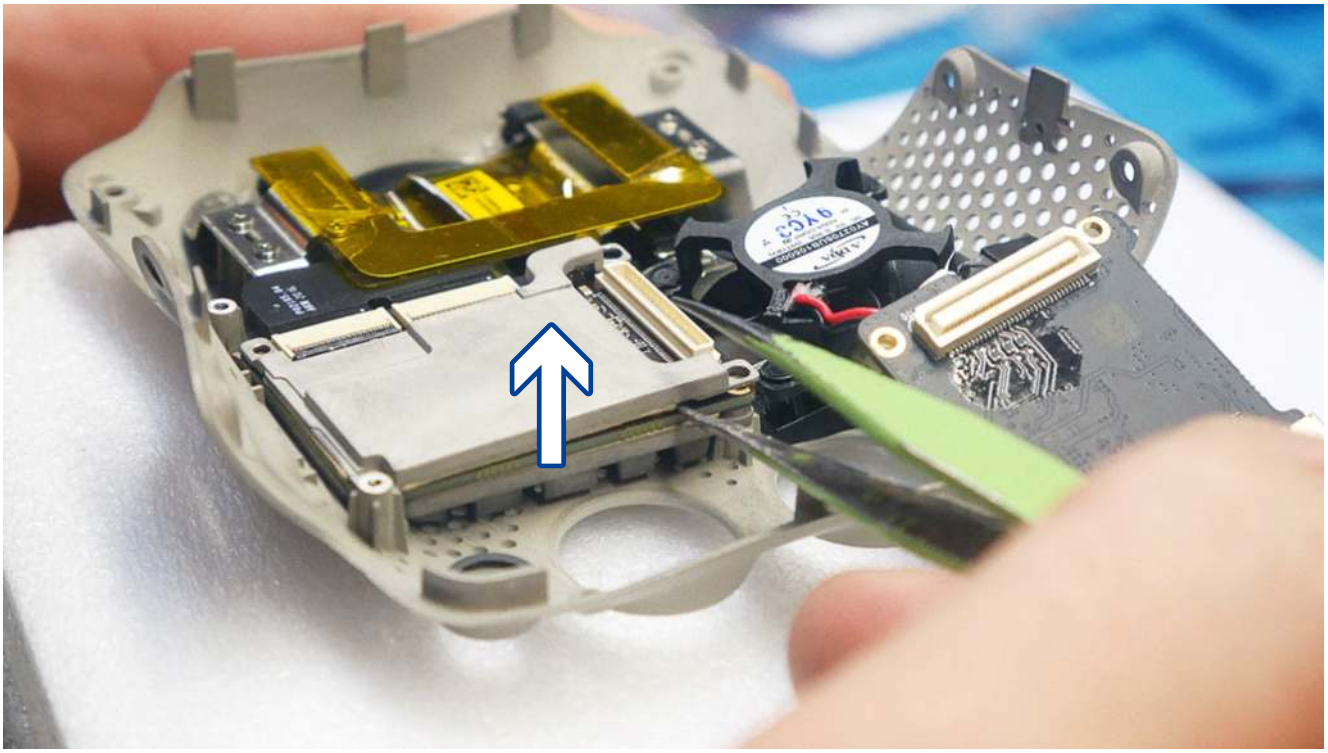
4. Remove the top of the gimbal board from the slot on the bottom:



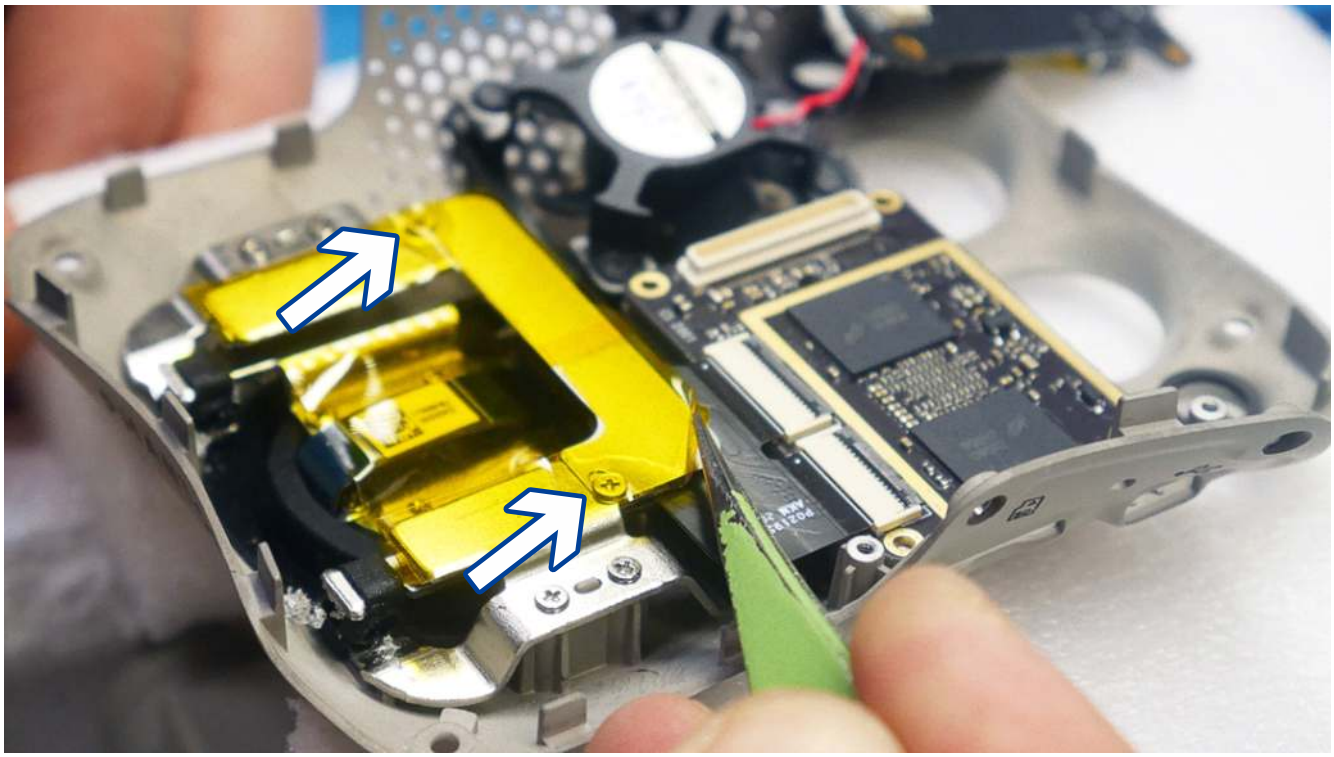
5. Use tweezers to remove the fixing tape, unscrew the 4 screws fixing the shield of the lower part of the gimbal board, then remove the shield with tweezers, prying it off as shown in the picture below:

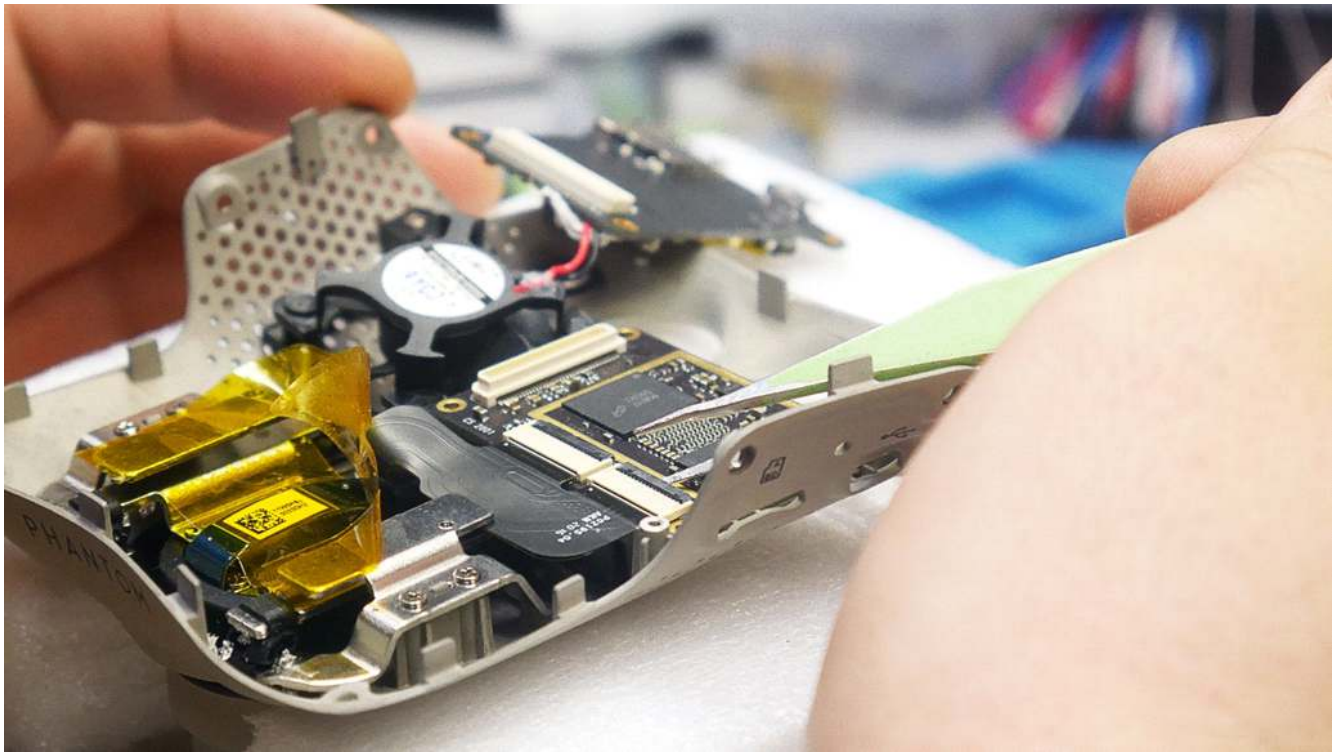




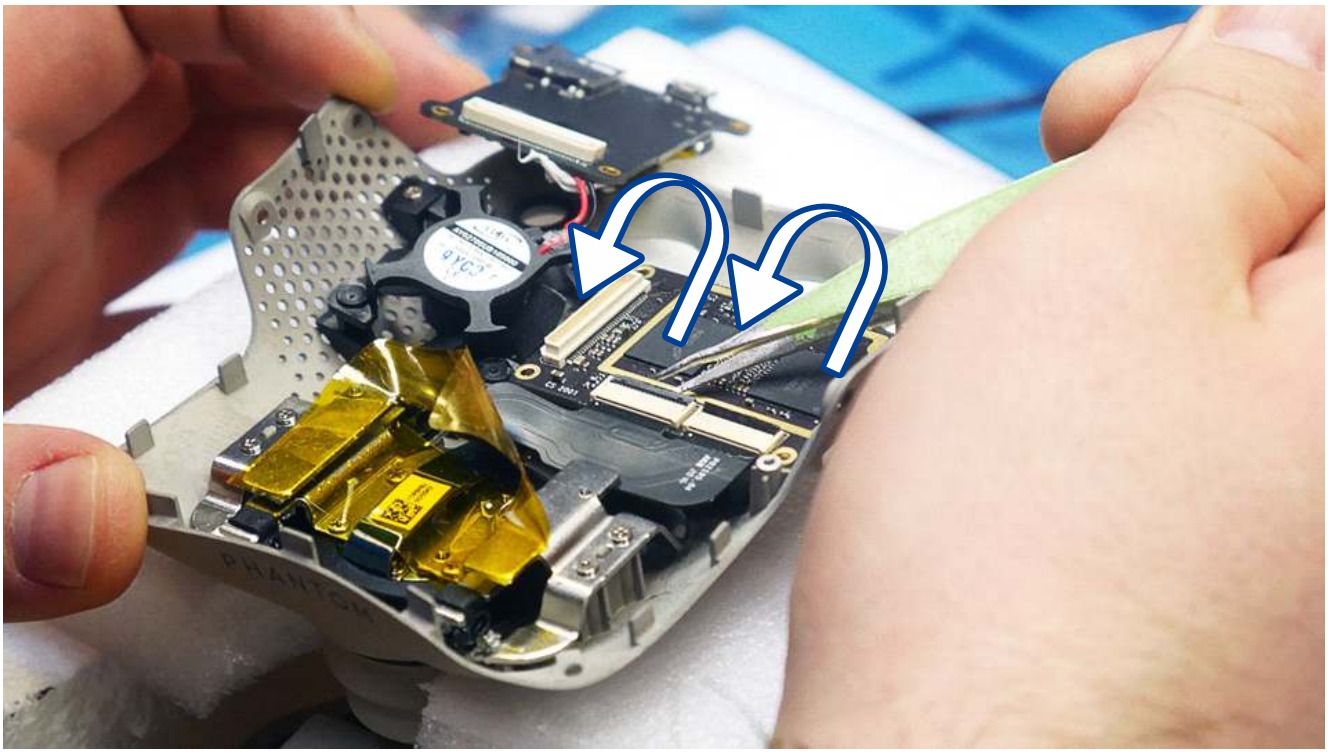


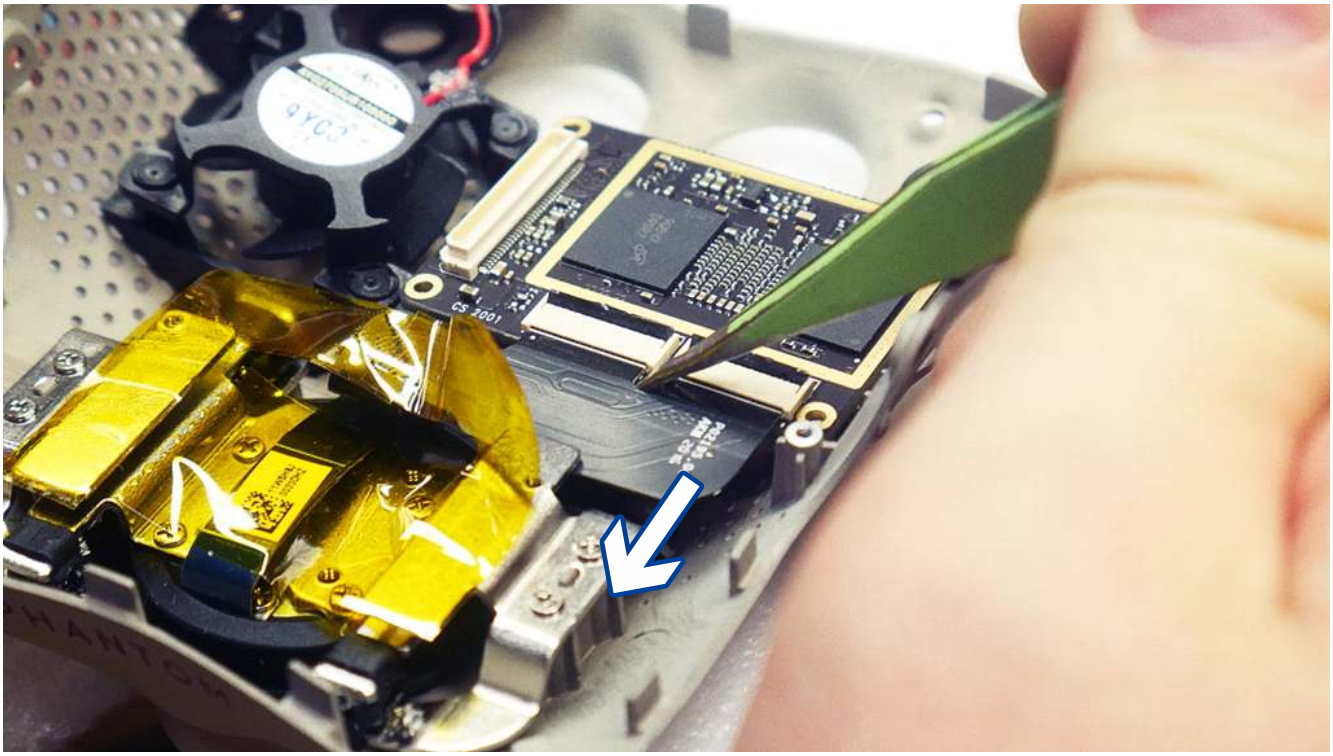
6. Unscrew the fixing bracket of the suspension cable:





7. Unclip the gimbal cable clips and remove the cable from the connectors:





8. Solder the signal wire to the gimbal board terminal:For this stage of work, it is recommended to use a microscope

- Tin the contact of the right connector of the gimbal board

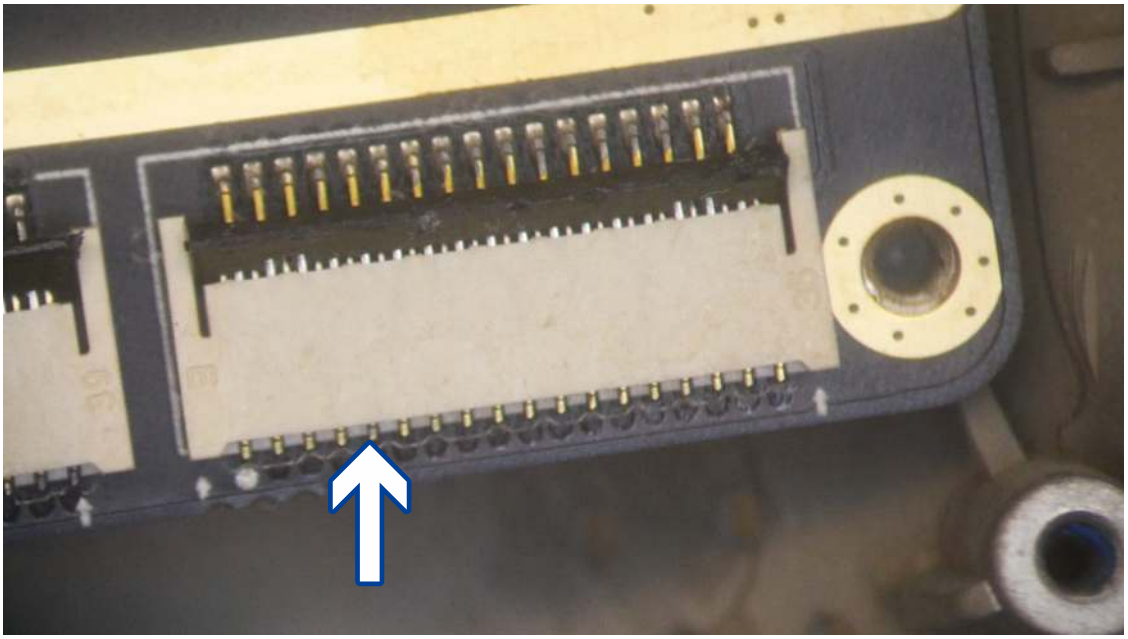
(counting to the left of the connector, pin 5)

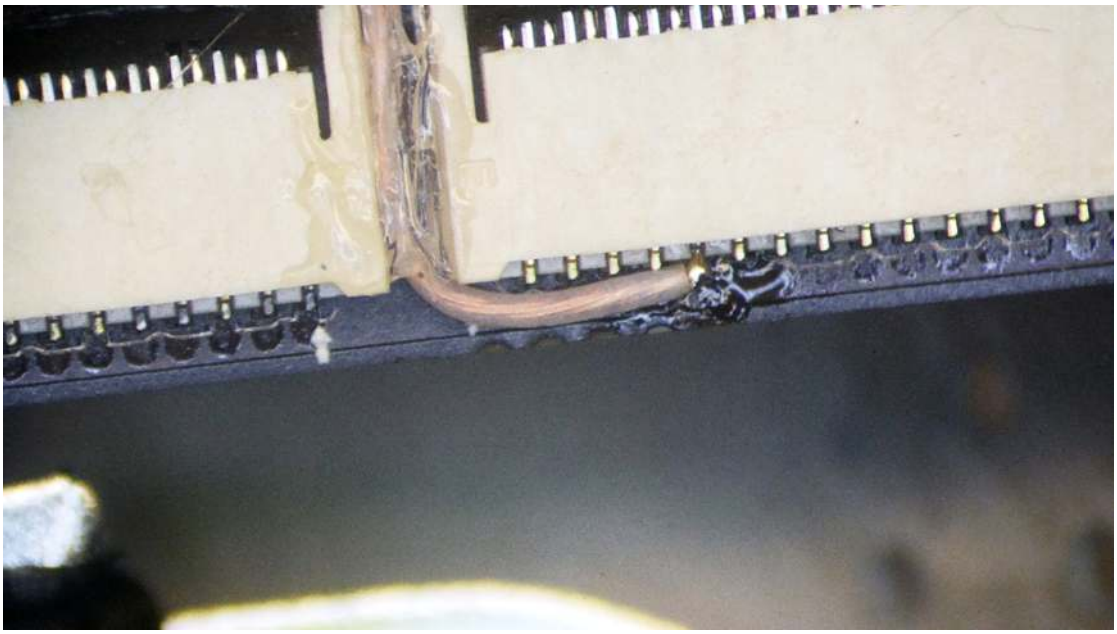
- Solder to the tinned contact of the MGTF 0.03 wires
- As shown in the picture below
- Fix the wire with hot glue

The wire should not interfere with the loop into place.

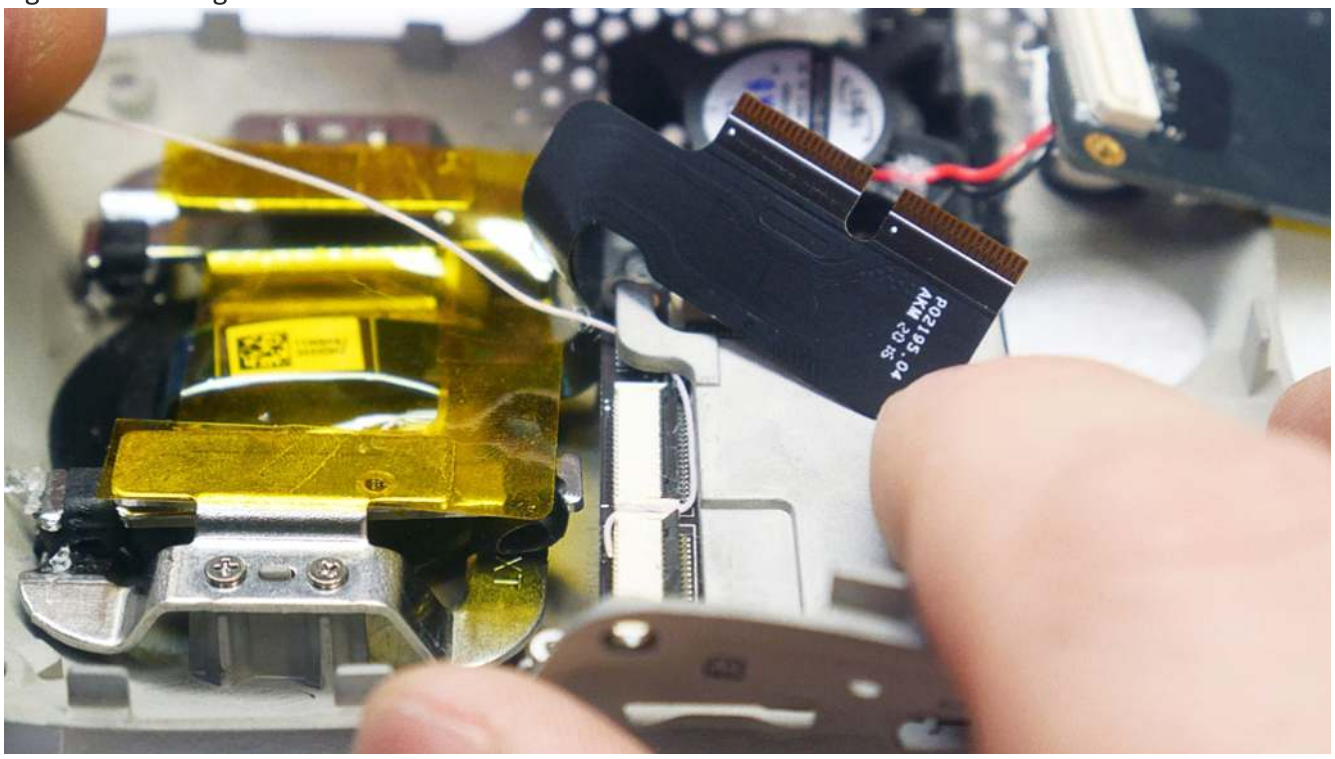
Next, install the screen on the board by passing the signal wiring along its side

.

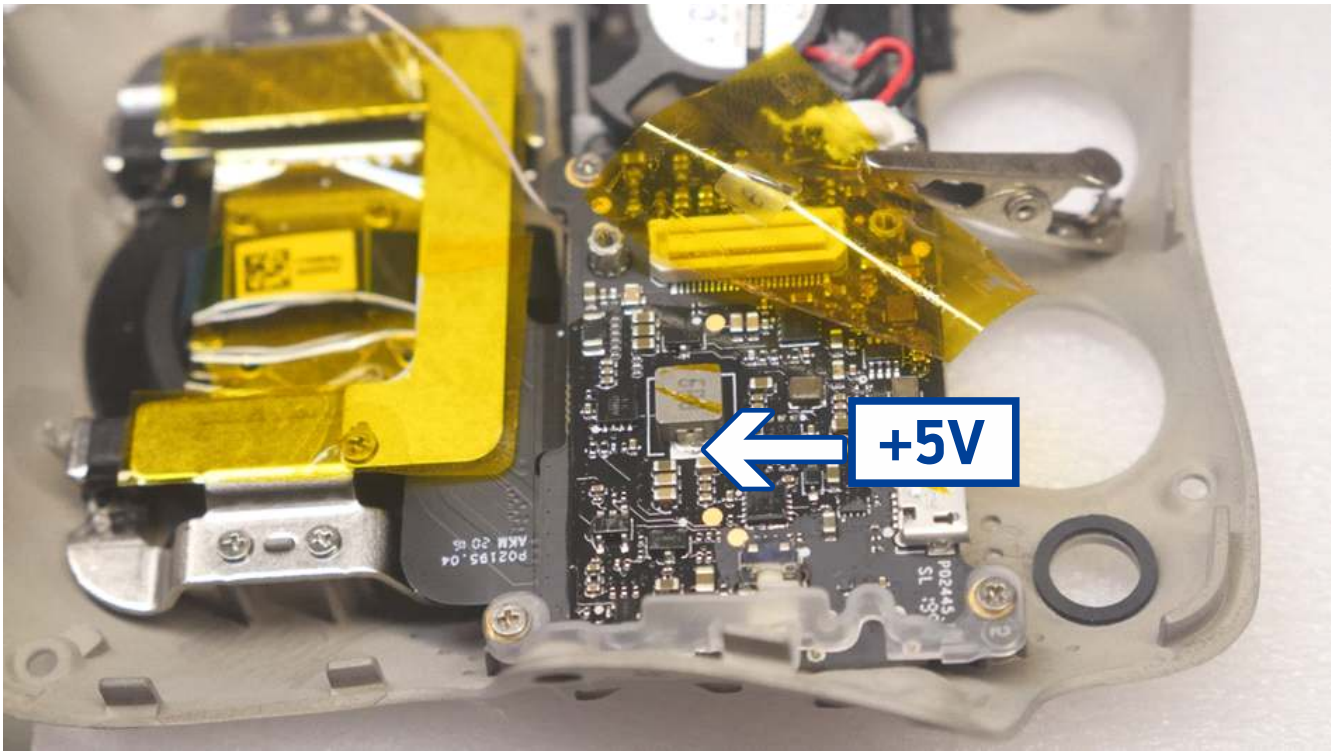


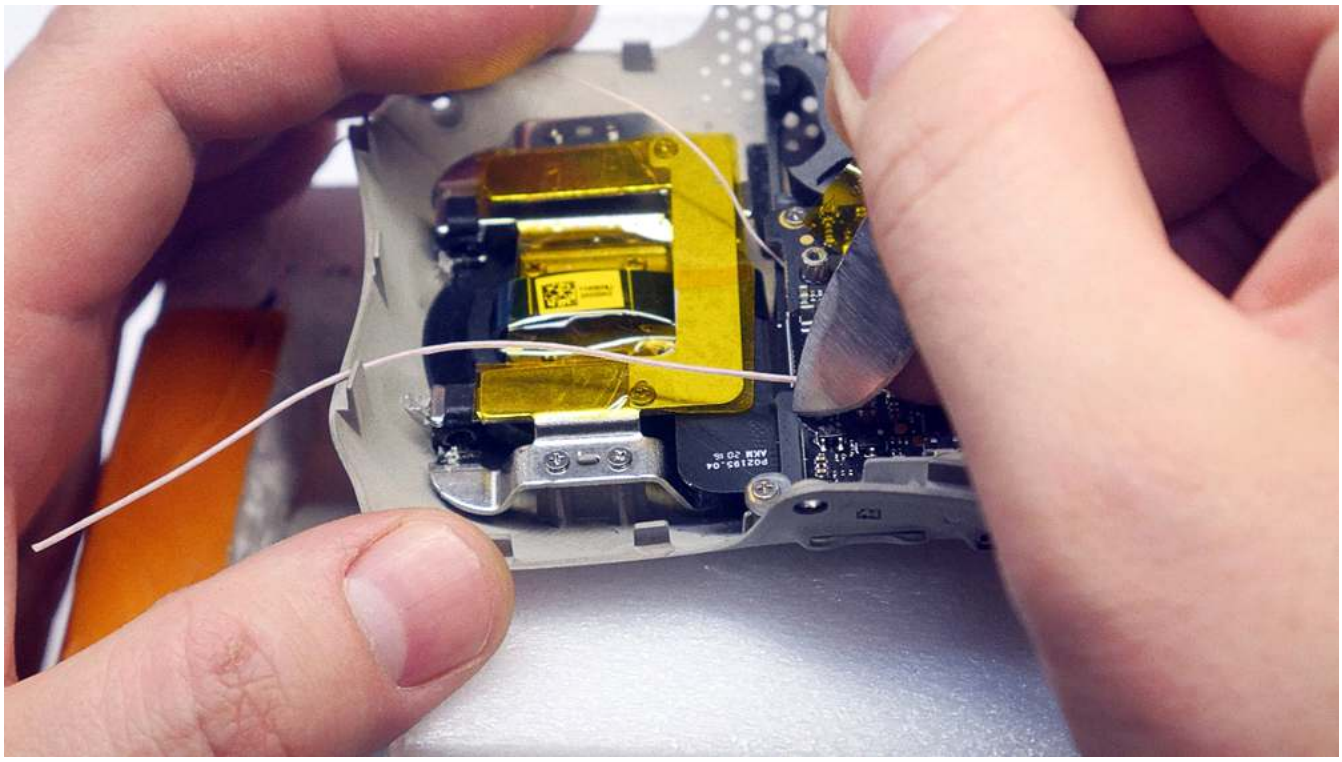


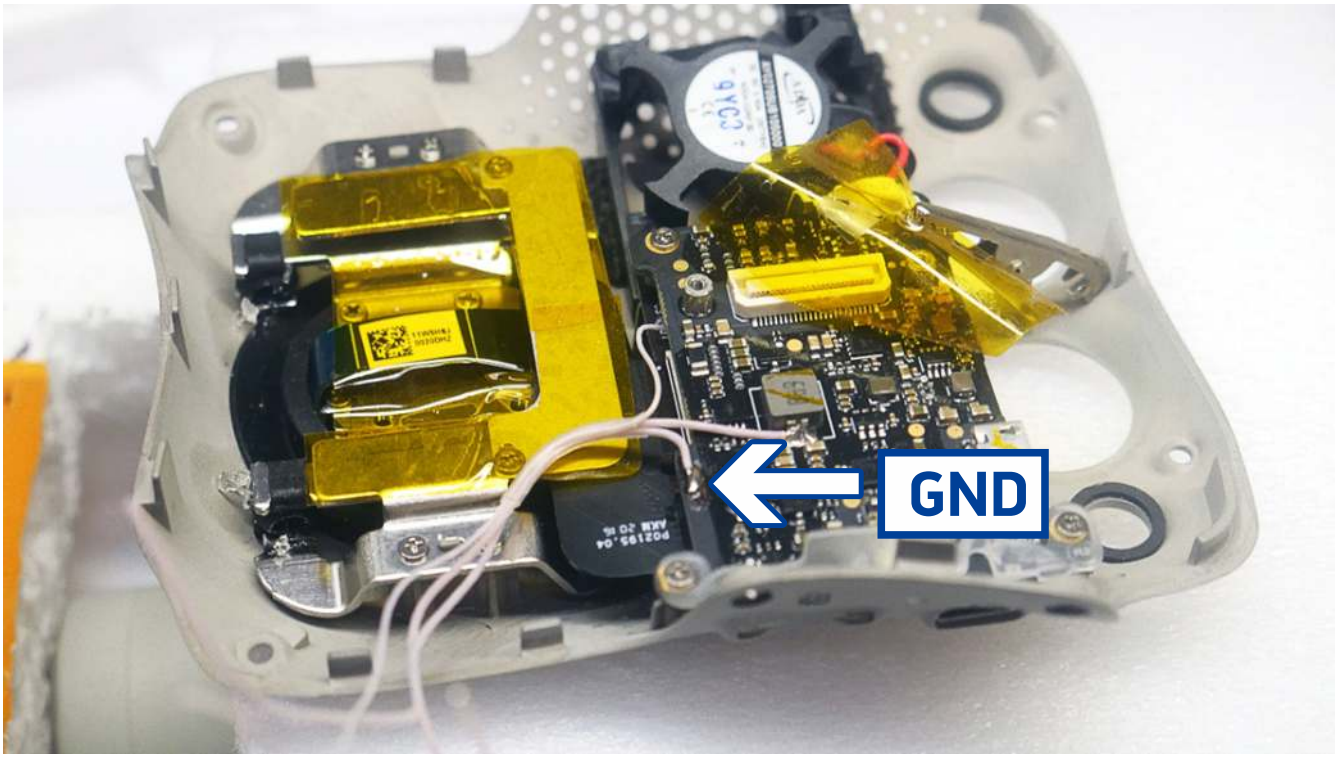
9. Insert the ribbon cable and fix it, assemble the suspension board to its original state and tighten the fixing bracket.



10. Solder the supply wires:
+ 5V - solder the wire to the inductor
GND - strip the edge of the board from the mask and solder the wire to the ground, as shown in the picture below:+5V






GND

11. Bundle the soldered wires, heat shrink them, then solder them to the wires through the hole.

12. Assemble the quadcopter to its original state

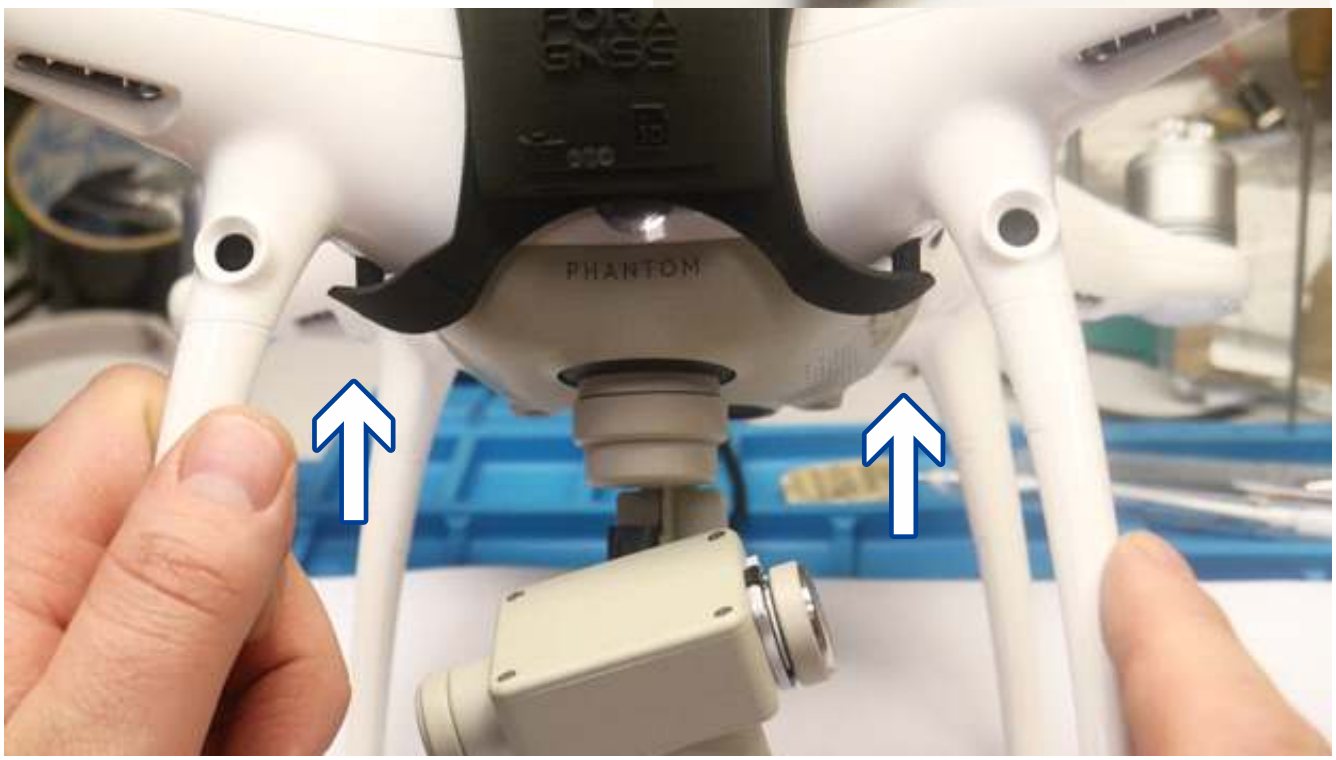
13. Solder the wires to the logger wires:
Red - + 5V, Blue - GND, White - signal.

14. Remove the protective layer from the double-sided tape,

15. Threading the wires into the hole where they come out, fix the logger to the quadcopter body:
.

- Insert the pins of the logger body all the way into the screw channels of the drone body, as shown in the picture:





- Glue the logger body to the quadcopter body.

Wiring must be completely immersed in holes

