



DJI Phantom 4 Shell Replacement

A how-to guide for replacing the DJI Phantom 4 body shell. *Replacing the body shell could also be used as a tear-down guide.

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INTRODUCTION

You are probably here because you wanted to get a better angle while you were trying to get that perfect shot and ended up getting a little too close to that tree than you thought.

This guide will give you a step-by-step on how to replace the shell of your DJI drone so you can do it yourself and not have to pay a stranger to touch your valuables.

*Notice, this repair does require some soldering.



TOOLS:

- [TR8 Torx Security Screwdriver](#) (1)
- [Phillips #000 Screwdriver](#) (1)
- [Spudger](#) (1)
- [X-ACTO Knife](#) (1)
- [Utility Knife](#) (1)
- [Soldering Workstation](#) (1)
- [Lead-Free Solder](#) (1)
- [T6 Torx Screwdriver](#) (1)



PARTS:

- [DJI Phantom 4 Body Replacement](#) (1)

Step 1 — Remove Propellers



- Push down and twist the propellers counter-clockwise to release from the drone.

Step 2 — Remove Battery



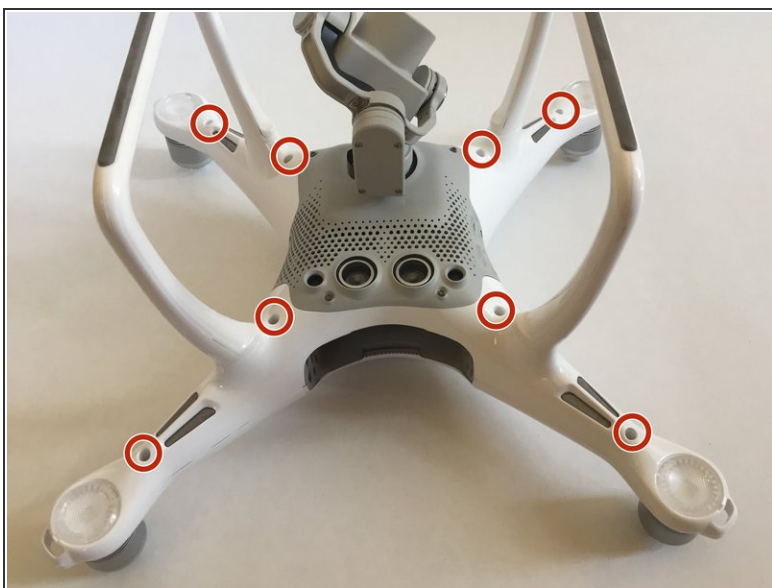
- Firmly press the battery tabs on top and bottom of the battery and slide out the battery.

Step 3 — Remove Gimbal Lock



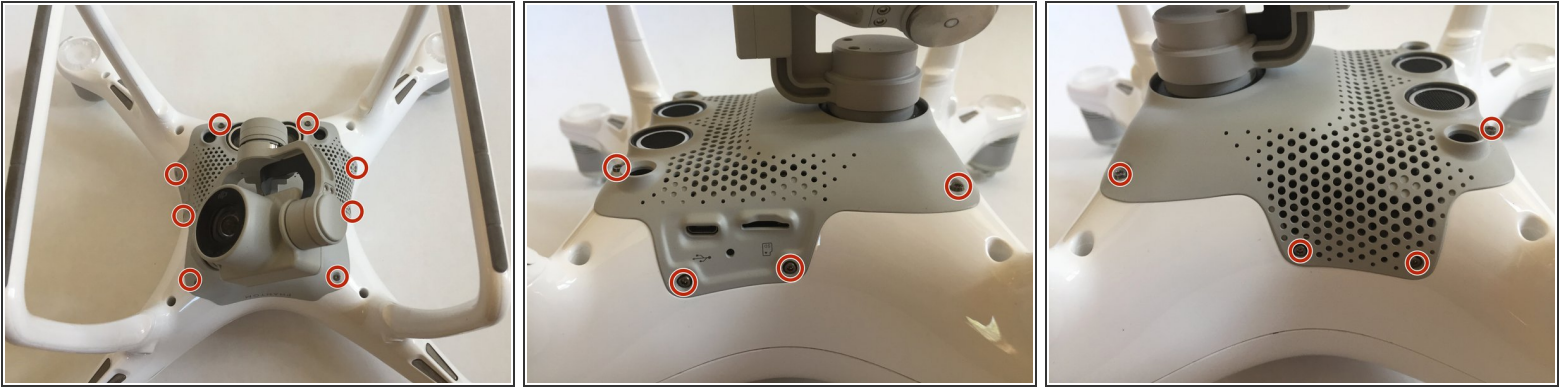
- If gimbal lock is still on, remove it from the drone.

Step 4 — Remove the Shell's Main Screws



- Using a T8 screwdriver, remove the eight Torx screws from the plastic shell.

Step 5 — Remove Gimbal Assembly Screws



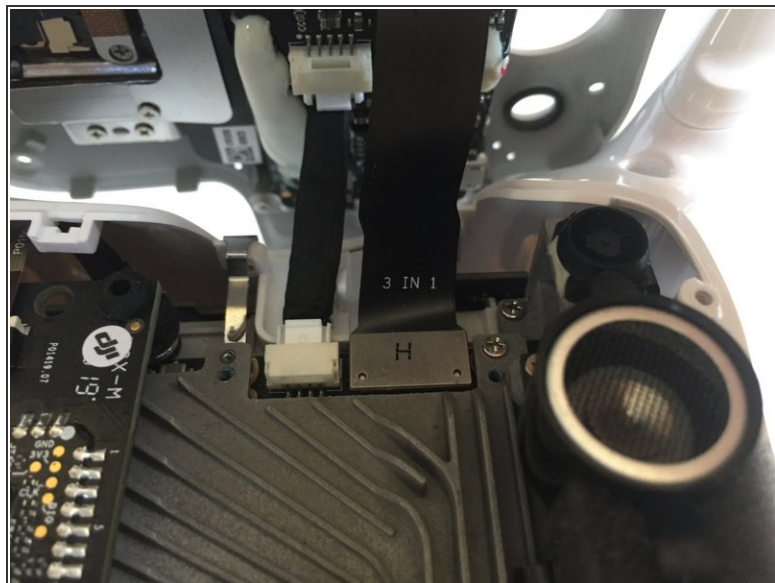
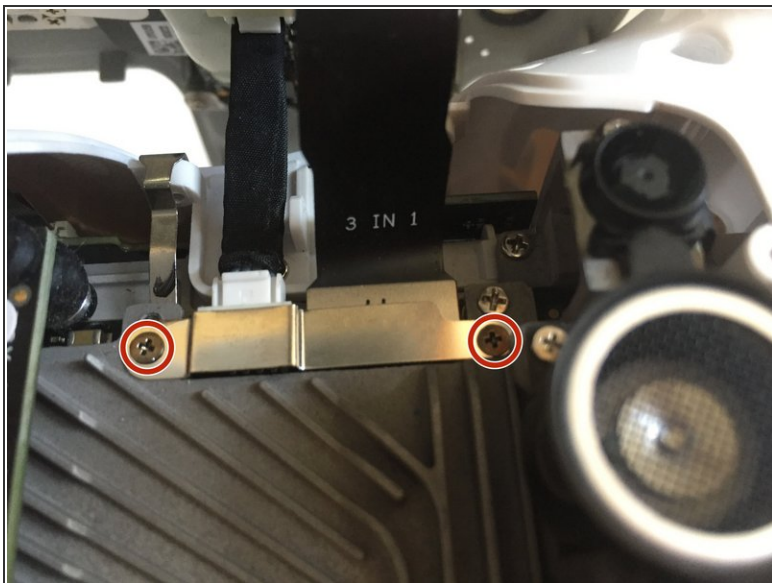
- Using a T6 screwdriver, remove all eight screws on the grey gimbal assembly.

Step 6 — Remove Gimbal Assembly



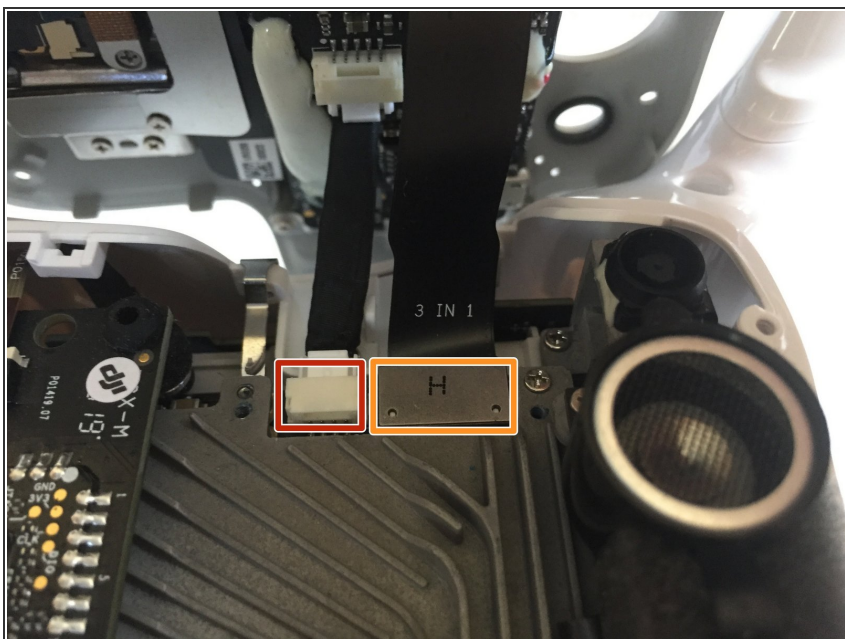
- Using a plastic spudger or pick, gently pry the gimbal assembly from the drone.
- ⚠ Do not try to pull the gimbal assembly away from drone just yet —there are cables that must be unplugged first.

Step 7 — Remove the Gimbal Cable's Screws & Bracket



- Using a Phillips #000 screwdriver, remove the two screws and the gimbal bracket.

Step 8 — Unplug the Gimbal

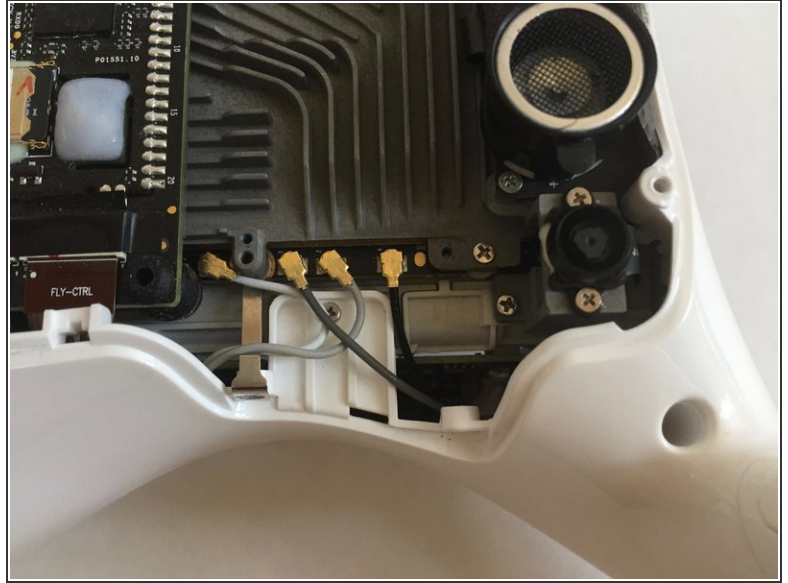


- Using your fingers or needle-nose pliers, gently unplug the left (red box) cable by pushing in the white

clips on the sides and sliding the cable out.

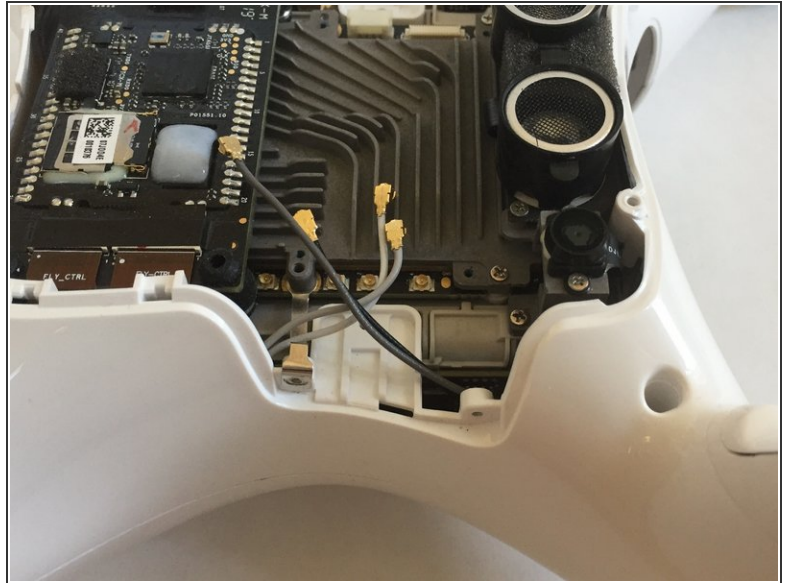
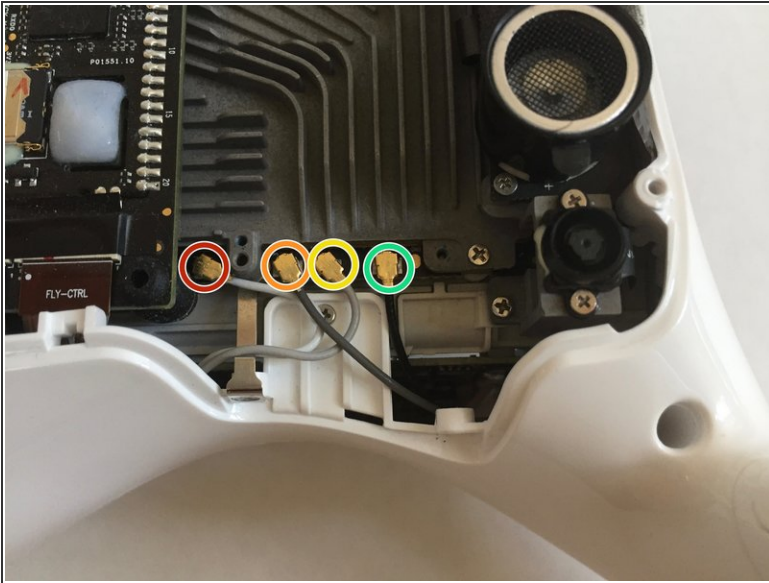
- Using a spudger, unplug the 3-in-1 cable on the right (orange box) by gently prying up.

Step 9 — Remove the Antenna Screws & Bracket



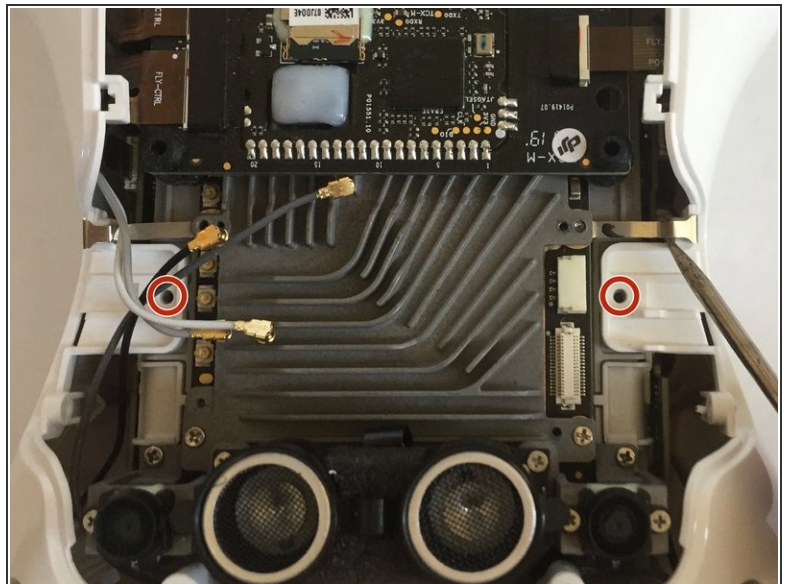
- Using a Phillips #000 screwdriver, remove the two screws and the antenna bracket.

Step 10 — Unplug Antenna Cables



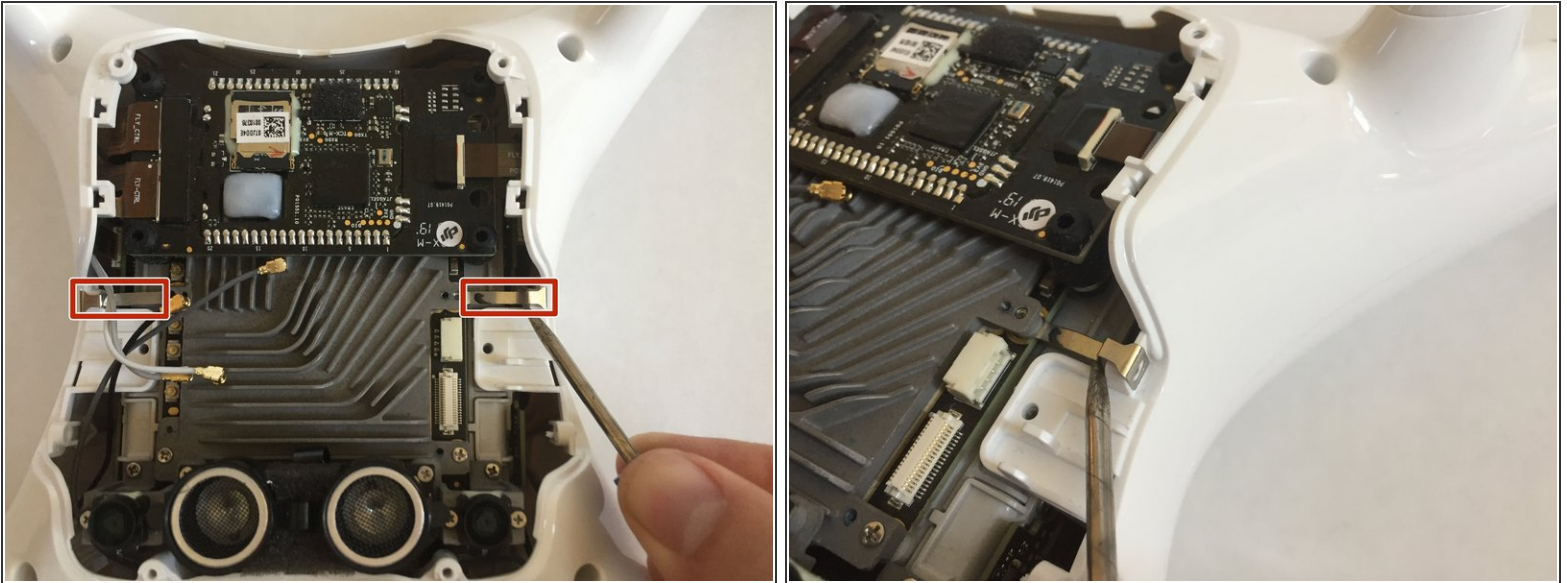
- Using a spudger, gently disconnect the four antenna cables.
- ☑ Remember the order in which the antenna cables are plugged in, or refer to this step during reassembly.

Step 11 — Remove Plastic Clip Screws



- Using a Phillips #000 screwdriver, remove the two screws located on the white plastic tabs.

Step 12 — Bend Metal Clips Up



- Using a spudger, carefully bend the two metal clips upwards.

⚠ Be gentle and do not break the clips. You will need to bend them back down upon reassembly.

Step 13 — Remove LED Cover and Sticker



- Using a spudger or flathead screwdriver, gently pry up the LED cover.
- Using a spudger or flathead screwdriver, carefully pry up the underlying sticker.
- PRO TIP: Stick the sticker to the smooth side of the plastic LED cover to keep it clean and from losing stick. PRO TIP on reassembly: be sure to align the stickers so the tab fits in the snap slot.
- Repeat this step on all four LED covers.

Step 14 — Remove Shell/Motor T8 Screws



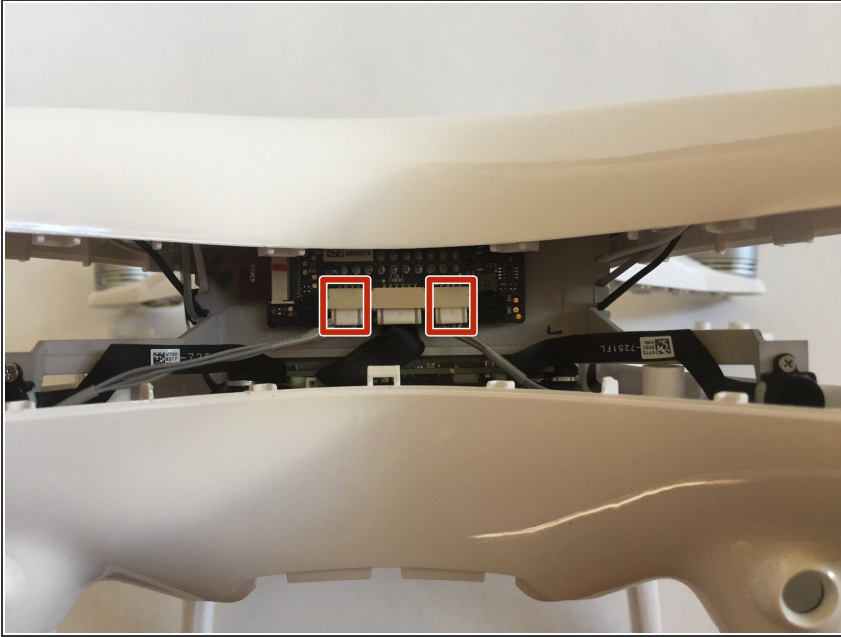
- Using a T8 screwdriver, remove the 3 screws that attach the shell and motors together.
- Repeat this step on all 4 motors.

Step 15 — Separate Body Shell



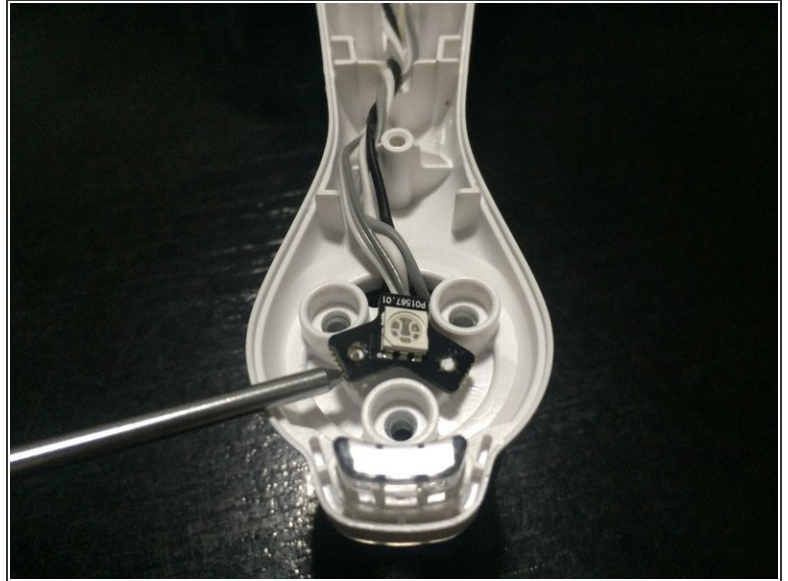
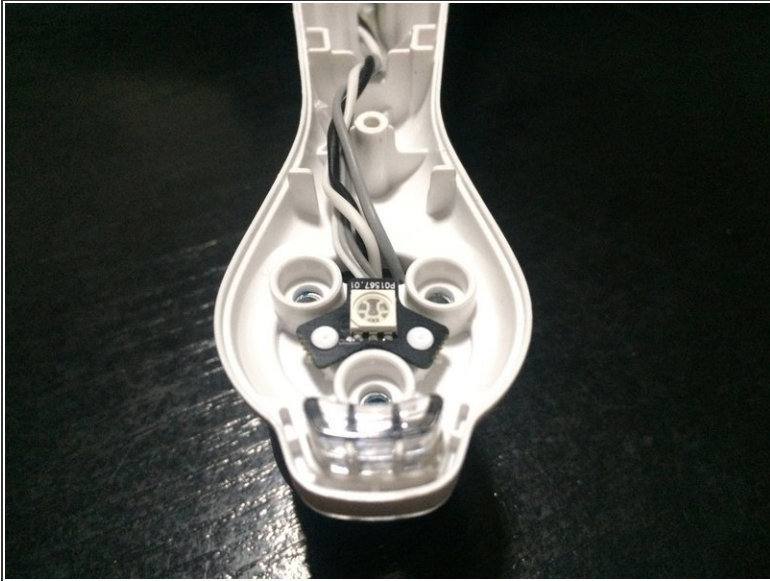
- Using a spudger or pick, carefully pry your way around the seam, undoing the clips that attach the shell together.
 - PRO TIP: If you are replacing the shell because your old shell is trashed, don't worry about cracking or damaging the broken shell. Just go for it.
- ⚠ Do not try to pull the shell completely apart just yet, there are some cables that must be unplugged first.**

Step 16 — Unplug 2 Cables



- Using your fingers or needle-nose pliers, gently unplug the cables by pushing in the white clips on the sides and sliding the cables out.

Step 17 — LED Rivets



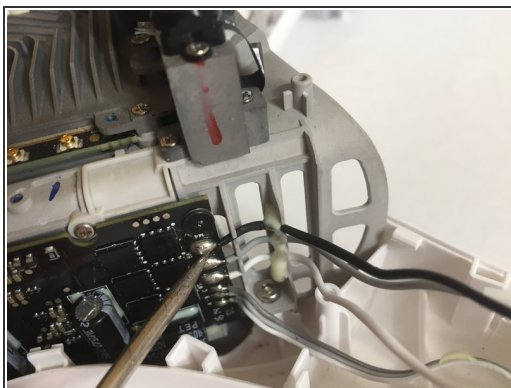
- Using a knife or flathead screwdriver, remove the melted plastic rivets holding down the LED board. Be careful to not damage the LED.
 - Carefully pry up the LED board from the drone shell.
 - Repeat on all four wings.
- ✦ During reassembly use a dull soldering iron tip to remount the LED board to the new shell.

Step 18 — Wire Glue



- Using a small screwdriver, carefully pry up the motor and LED cables where they are glued down to the shell.
- Repeat on all four wings.

Step 19

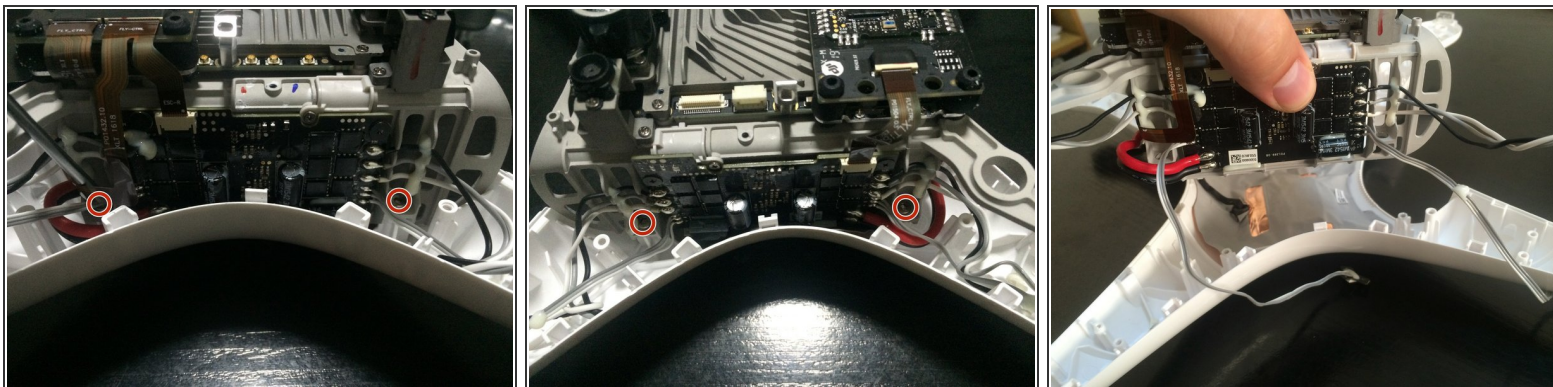


- [Desolder](#) all 12 of the motor wires that connect to the drones mother boards.

⚠ DO NOT cut the cables with wire cutters—they are enameled wire and are a pain in the butt to solder back together and have them still work. Do yourself a favor and just desolder them from the board.

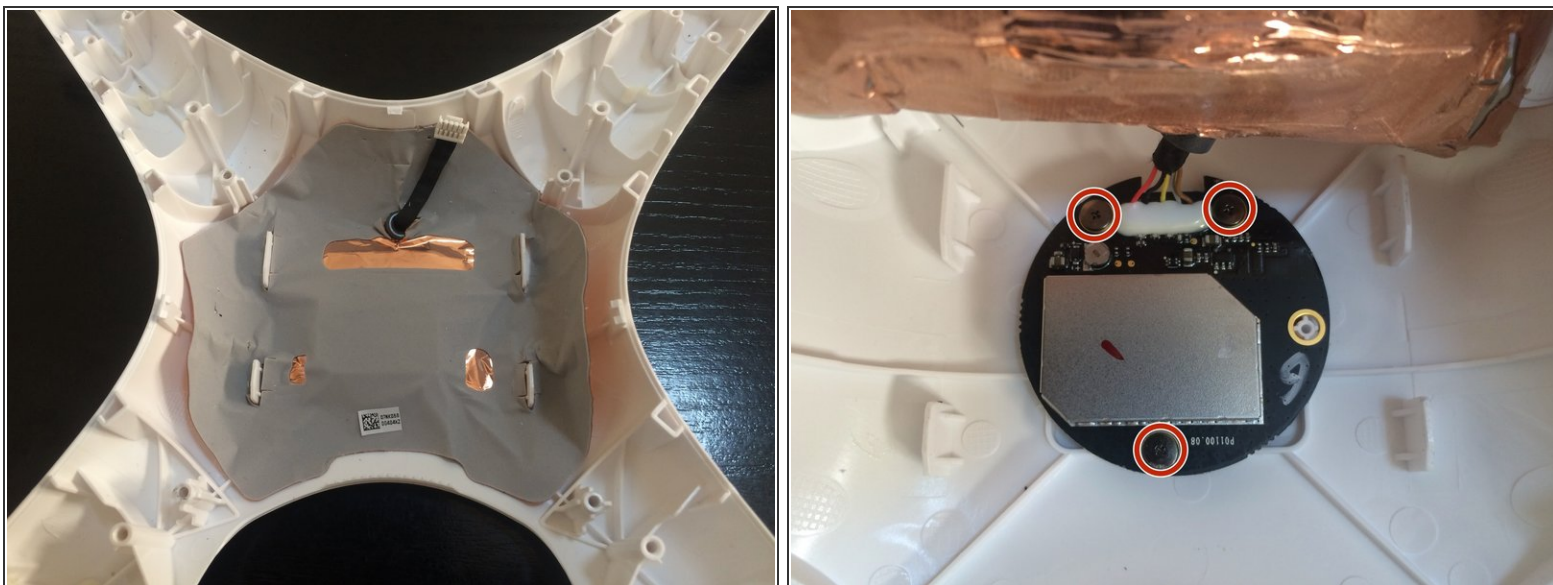
- ☑ For reassembly, note the order of the cables. While the drone is upside down, black is the top wire, grey is middle, and white is bottom.

Step 20 — The Brains



- Using a T8 screw driver, remove the four screws that mount the battery bay and brains from the upper shell.
- Carefully remove the brains out of the upper shell.

Step 21 — Shielding



- Carefully peel the shielding sticker from the upper shell. Note that you can't remove it all the way until you remove three screws.
- Using a Phillips #000 driver, remove the three screws that are mounting the board to the upper drone shell.

Step 22 — Legs & Antenna Cables



- Carefully pry off the screw covers on the legs that are attached to the lower shell.
- Using a T6 screwdriver, remove the two screws. Repeat on all four corners.
- ☑ Take note on where you are removing the cables from, and install them in the new lower shell in the same way you found them.

To reassemble your device, follow these instructions in reverse order.