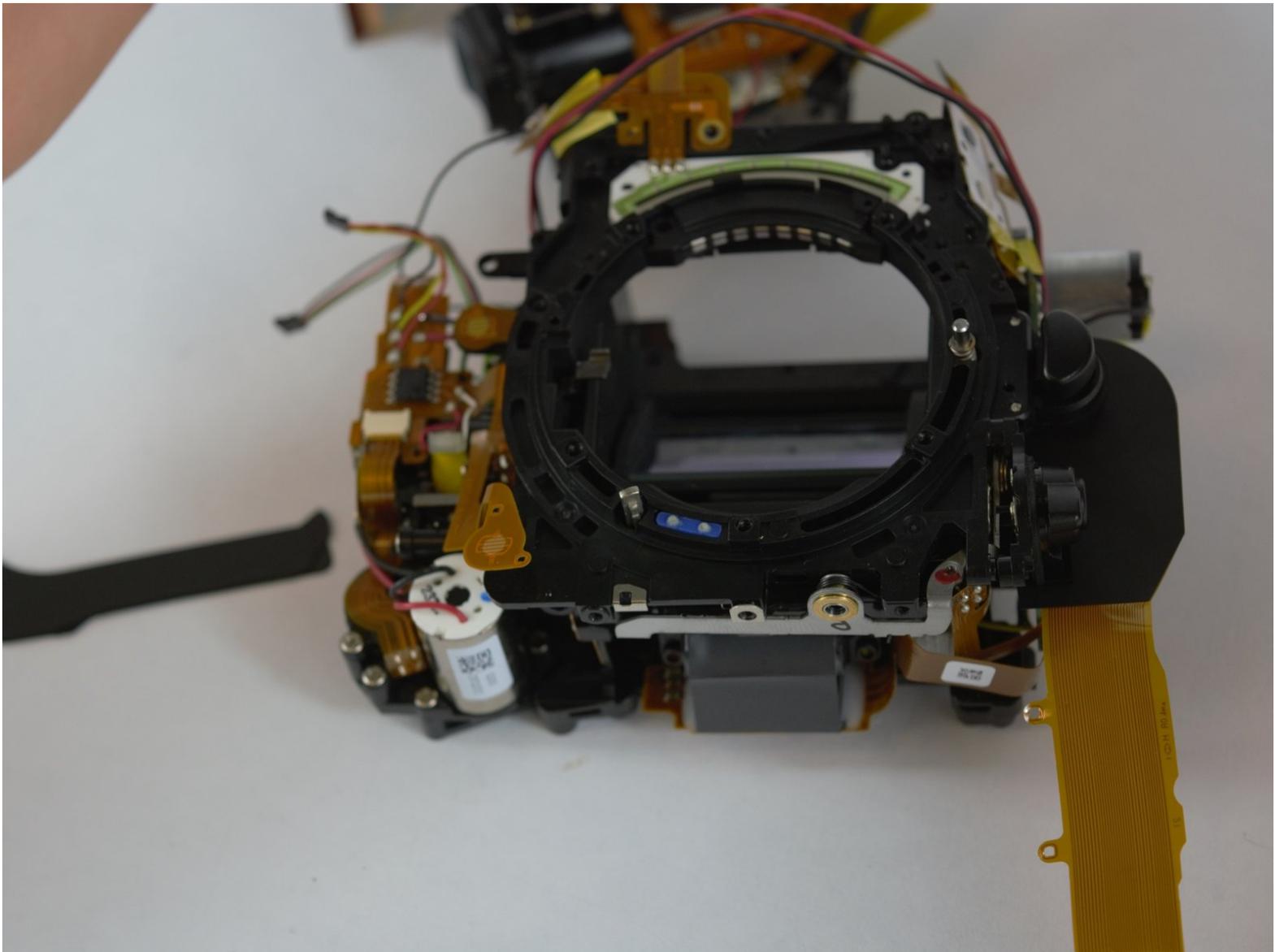




# Nikon D610 Autofocus Drive Motor Replacement

This guide will help you to replace the D610's autofocus drive motor.

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## INTRODUCTION

This guide will demonstrate how to replace the Nikon D610 autofocus drive motor. If your camera's autofocus feature has stopped working or is making a loud audible noise when focusing, it may be time to replace it.

The autofocus drive motor can cause these issues in the camera; stabilization issues, improper lens calibration, or unclear background scenery. Before starting this repair try [troubleshooting](#) the issue first to ensure the problem is the autofocus drive motor. By completing this repair you will be able to use the autofocus on the camera again allowing you to take faster photos at a higher quality.

No special skills are required for this guide, however, you may be required to [solder](#) and you will be disassembling a camera with delicate interior parts so special care is required to ensure the camera's sensor and other parts are not damaged. This repair is difficult due to the nature of cameras and all of its cables, it is best to be gentle when going through the repair process.

### TOOLS:

- [Phillips #00 Screwdriver](#) (1)
- [Desoldering Braid](#) (1)
- [Soldering Workstation](#) (1)
- [Spudger](#) (1)

### PARTS:

- [Nikon Lithium Ion Battery Pack -- 7.0V 1900mAh 14Wh](#) (1)

## Step 1 — Battery



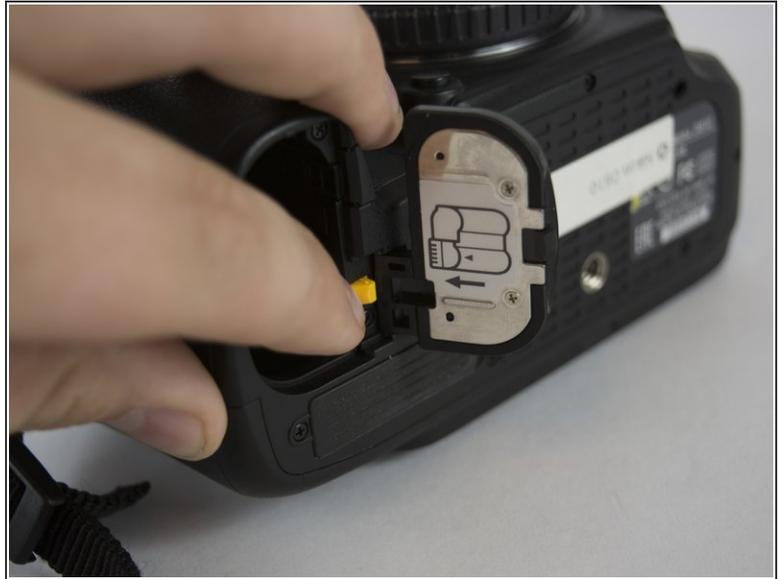
- First, power off the device.

## Step 2



- Set the camera so that it is sitting on its side.
- Open the battery compartment door by sliding the release button towards the lens.
- This will cause the door to "pop" open slightly

### Step 3



- Now lift open the battery compartment door.
- Push the yellow tab lock towards the center to release the battery.
- ⓘ This will cause the battery to jump up as there is a spring at the bottom.
- Pull straight out, slowly on the battery.
- ✦ Make sure you pay attention to which way the battery goes .

## Step 4 — Outer Case



- After removal of the battery. Pull the battery compartment door away from the lens.
- There are eleven Philips head screws that hold the bottom cover on, including a few inside the battery compartment.
- Remove all the screws and the bottom face should pop off easily.

## Step 5



- Then next step is removing the seven Philips #00 screws that hold the rear face plate on.
- There are screws hidden in three separate spots.
- One is under the rubber doors on the left side of the camera. the next one at the eye hole.
- The final one involves taking off the small dial that is about half an inch to the right of the eye hole.
- Removing this dial involves putting a spungder tool behind it and applying a gradual amount of pressure.

## Step 6



- The rear face plate will include the LCD display it separates from the body of the camera with a small tug.
- ⚠ Do not pull to hard otherwise you risk breaking the ribbon wire that connects the controls and the screen.
- Once there is enough space it will be possible to gently pull the ribbon cable out of their ports.

## Step 7



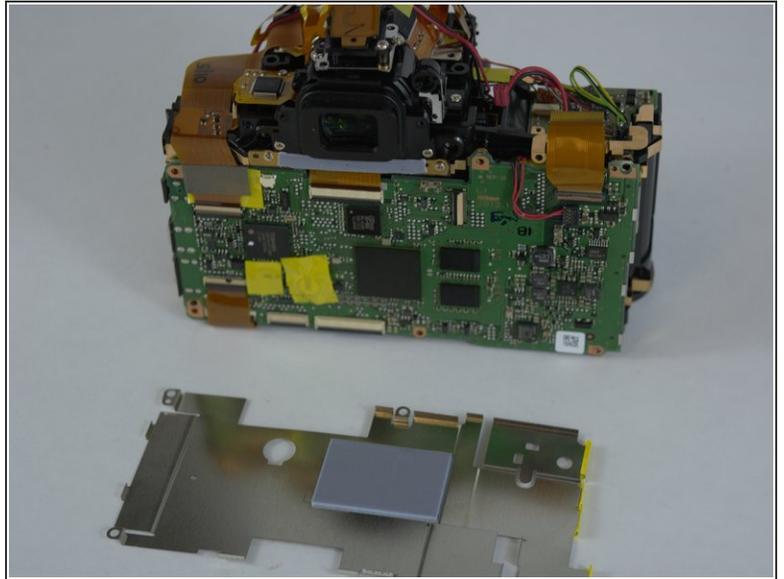
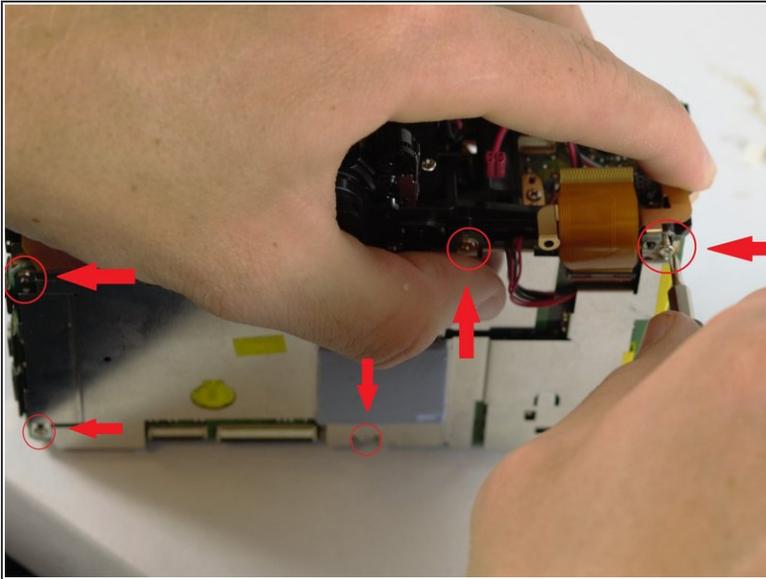
- The next piece to come off is the front plate and the red grip.
- The front plate is held on by 2 Phillips #00 screws on the front and two more beneath the flash bulb.
- Remove the two Phillips #00 screws holding on the grip and it slides off easily.
- ⓘ After removing the screws the face plate comes off by pulling it straight off to avoid damage.

## Step 8



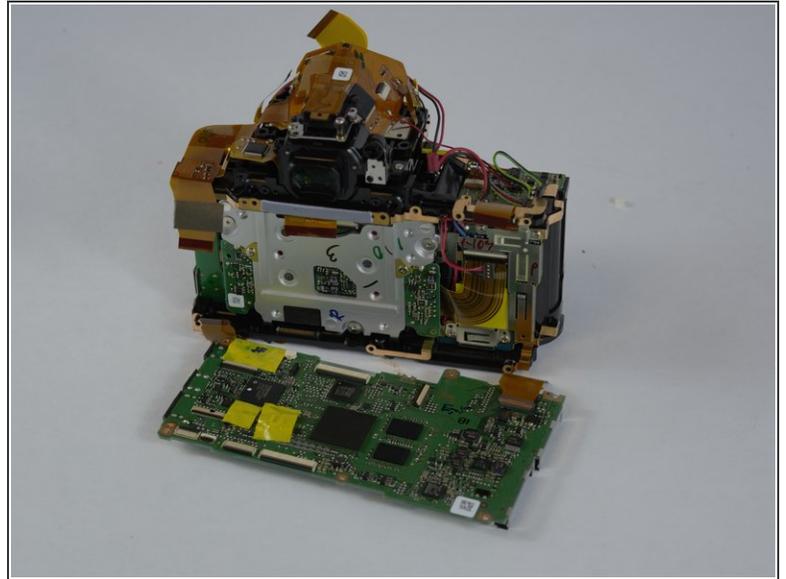
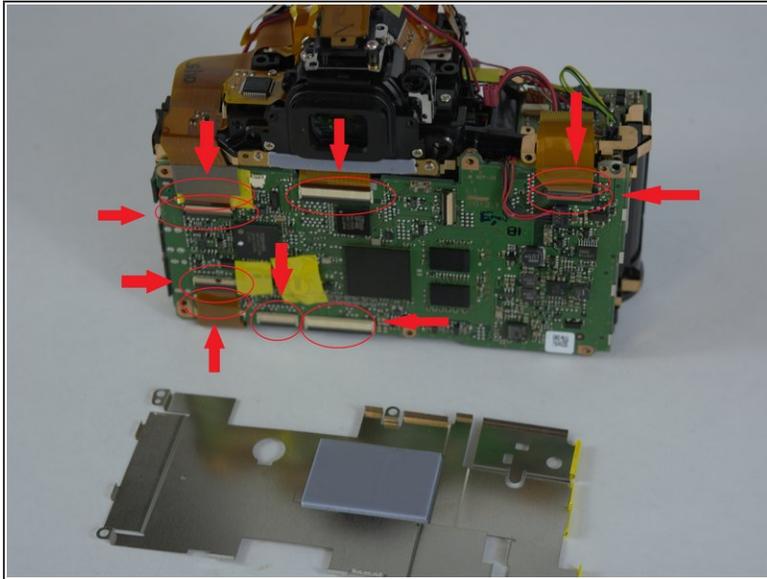
- It is now possible to remove the last three Philips #00 screws that are hidden under the memory card slot door.
  - The screws come out and the cover comes straight off.
  - The last cover plate is the top. The top is held on by two screws located just beneath the rim of the cover.
- ⚠ The top should be pulled off very slowly. There are several electronic components that connect between the body and the top.**
- ⓘ There are three wires that need to be disconnected.

## Step 9 — Motherboard



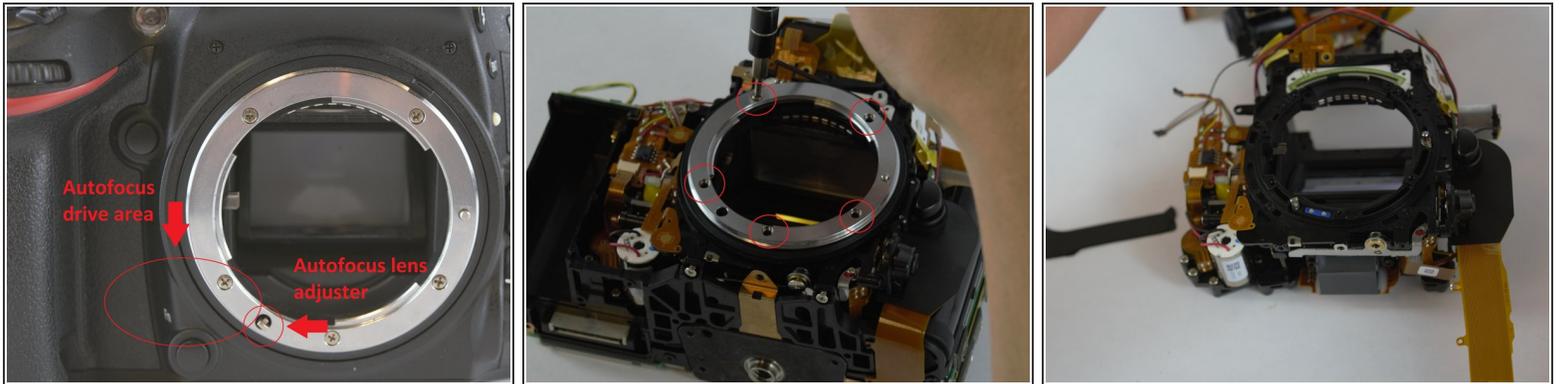
- The rear side of the camera is where the motherboard is located. It is visible after you have taken off the rear face plate.
- Remove the shield that protects it from static first.
- This shield has six Philips #00 screws that are positioned around the edge of the shield.
- After removal of the screws the shield will come free from the motherboard.

## Step 10



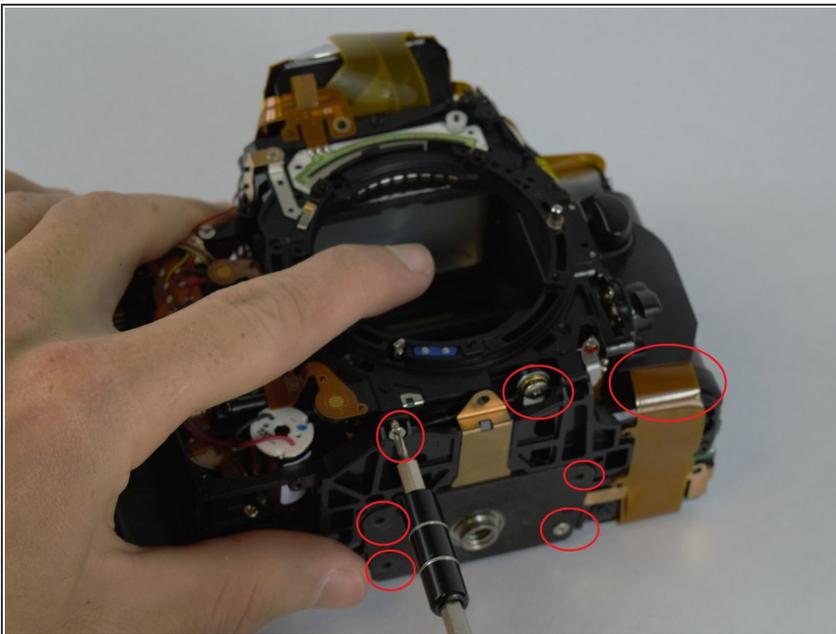
- i** The six screws that were removed in the previous step also hold the motherboard in place.
- There are a few ribbon cables that connect to the motherboard to the rest of the camera with some of them hiding under other ribbon cables.
- !** Be very careful when removing the ribbon wires. If they break it can cause problems with needing more repairs.

## Step 11 — Autofocus Drive Motor



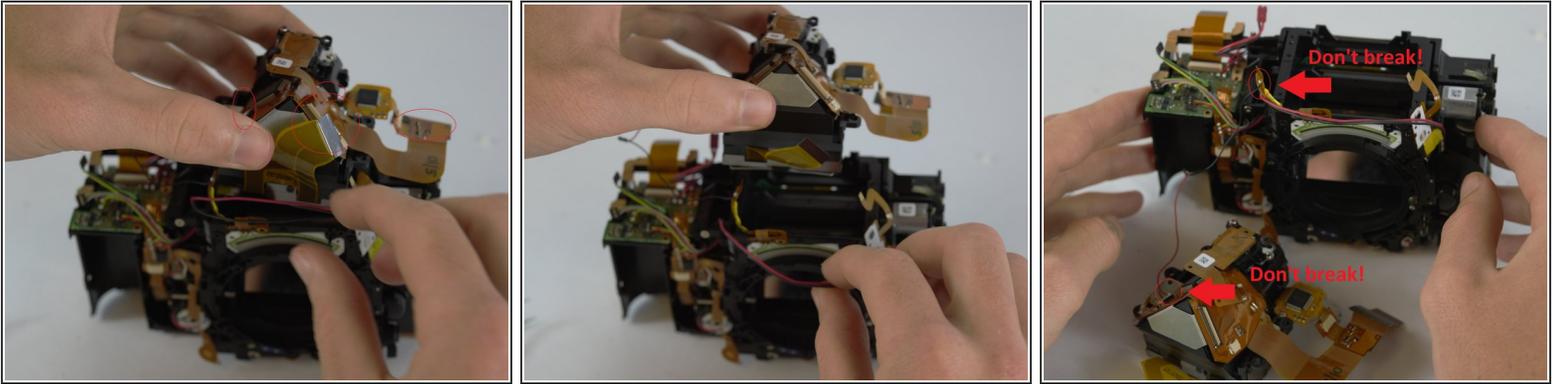
- ⓘ The focus motor is located in between the right hand grip and the lens socket and requires several parts to be replaced as a whole because it is unreachable.
- Begin by removing the silver ring around the lens socket by unscrewing the five screws supporting it.

## Step 12



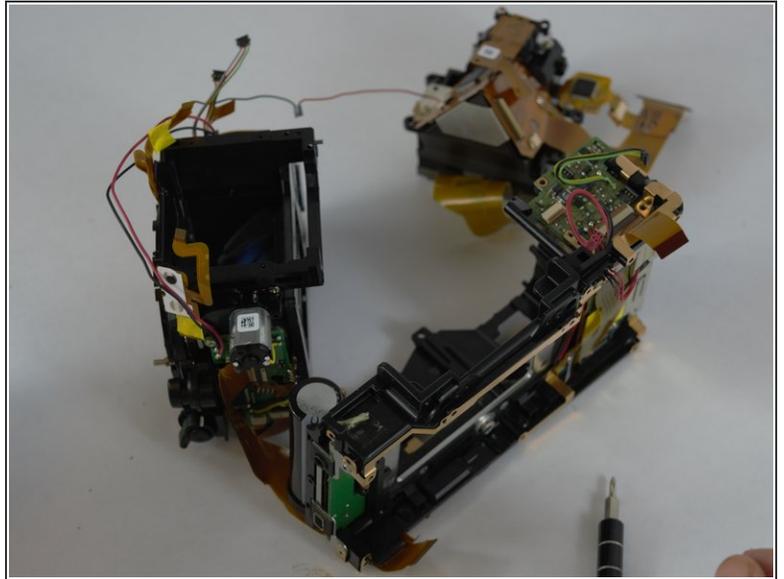
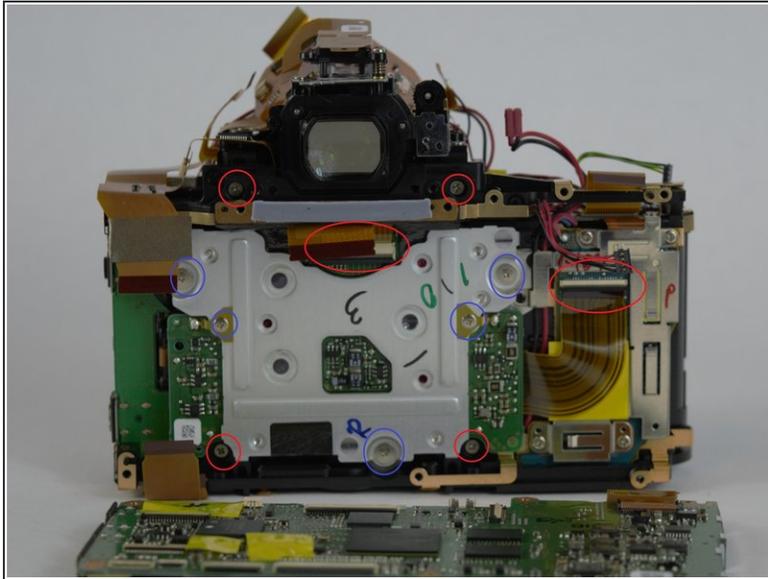
- Several screw and ribbon cables and the bottom portion of the camera need to be removed as shown in the picture

## Step 13



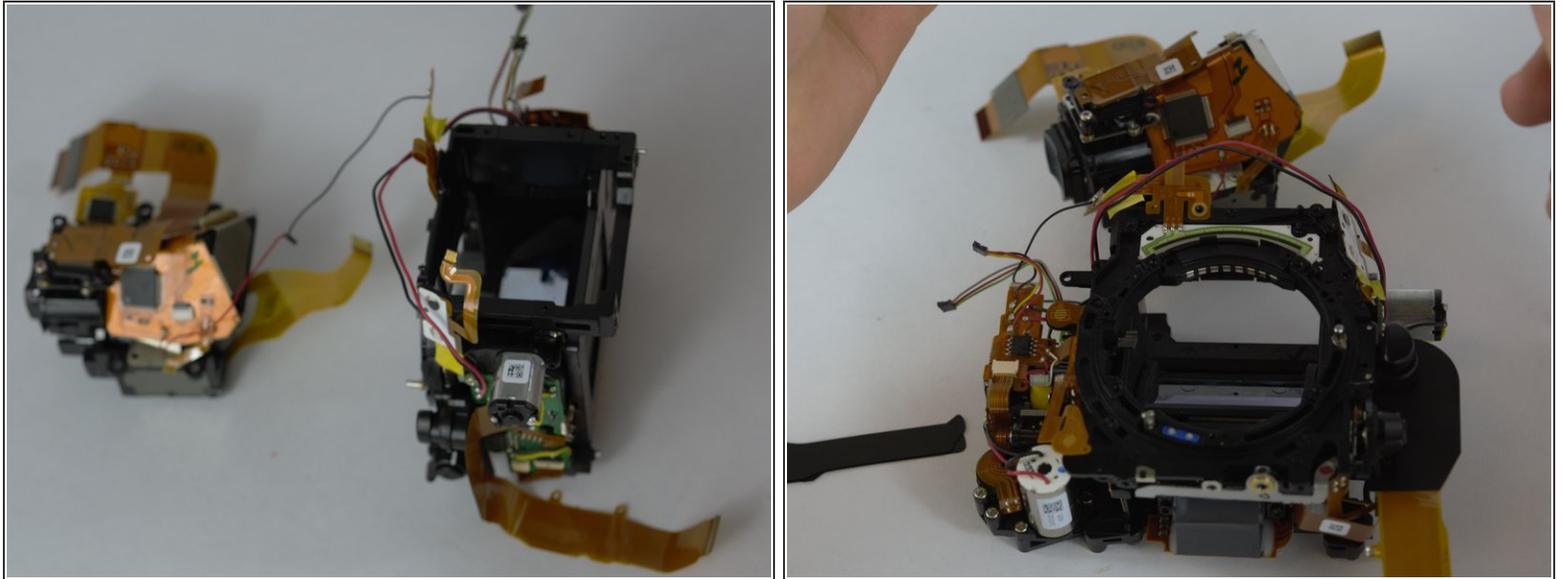
- Now that the bottom is prepped we move onto the top.
- Here we have more ribbon cables and screws that need to be removed that will end up releasing the top viewing lens area.
- ⓘ Some of the ribbon cables reach back around to the motherboard and may need to be removed there.
- ⓘ Also, there is a wire that runs along the top that just needs to be shifted out of the way.
- ⚠ **be careful not to break the red or black wire attached to some of the ribbon cables as they will need to be re-soldered if broken.**

## Step 14



- This is where having the motherboard off is necessary as the screws we need are burrowed at the very heart of the camera.
- Four more screws and two ribbon cables marked by the red circles need to be removed to release what we need.
- The blue circles indicate the screws that don't need to be undone to get to what we need.

## Step 15



- At last, the holy grail. We finally have the part that we want.
- At this point, damage to the camera becomes highly probable if we were to continue to take it apart and we recommend replacing the entire lens housing.

**⚠ We do not recommend tearing down any further as damage is likely to occur.**

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