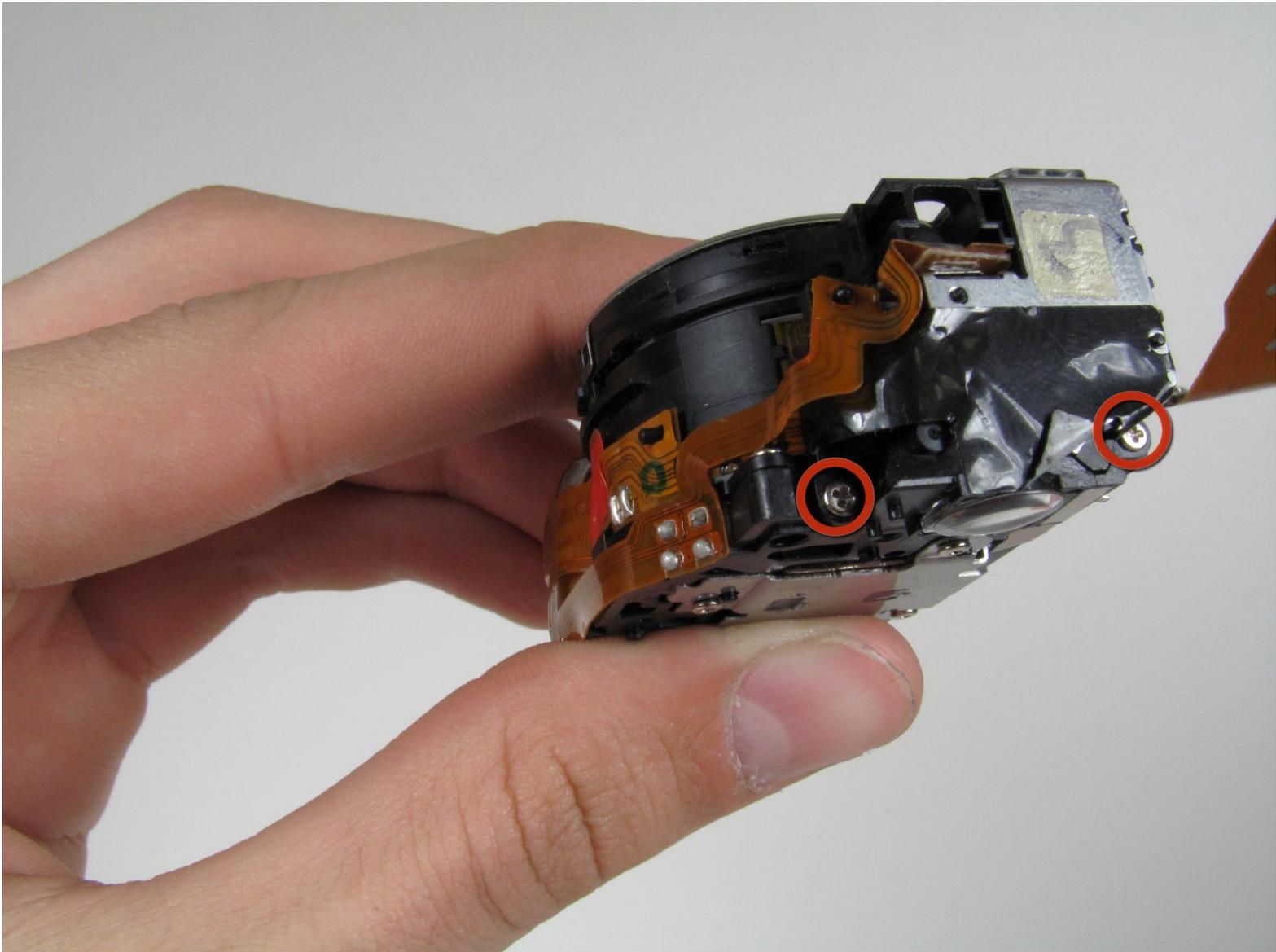




Canon PowerShot S500 Zoom Lens Replacement

Replace the Zoom Lens in your Canon PowerShot S500.

Written By: Nathan Balcom



INTRODUCTION

This guide shows how to clean and remove the zoom lens.

TOOLS:

- [Desoldering Braid](#) (1)
 - [Phillips #00 Screwdriver](#) (1)
 - [Solder](#) (1)
 - [Soldering Iron](#) (1)
 - [Spudger](#) (1)
 - [Tweezers](#) (1)
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Step 1 — Front and Rear Casing



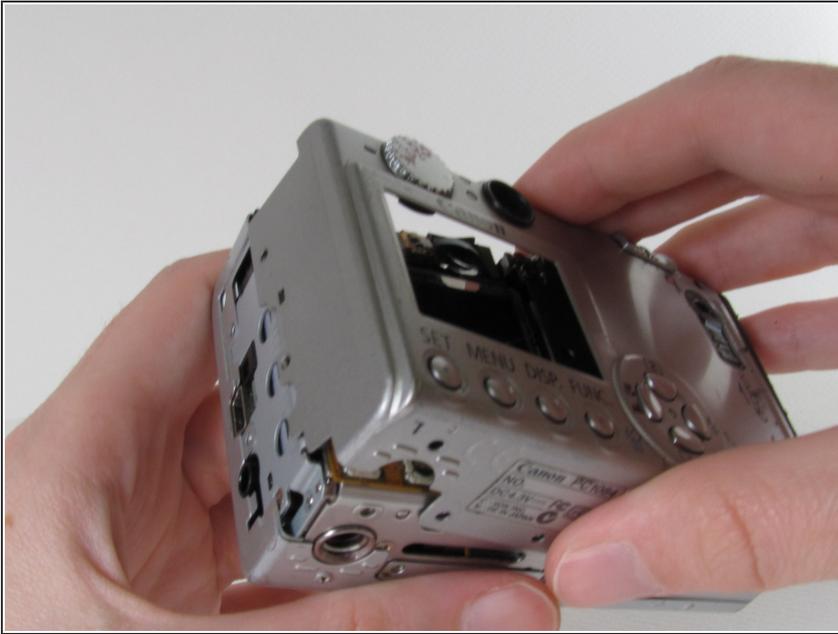
- Unscrew five Phillips screws using a #0 Phillips screwdriver.
- ⓘ One screw is on upper right corner of the back panel.
- ⓘ The other four screws are on the bottom of the camera.

Step 2



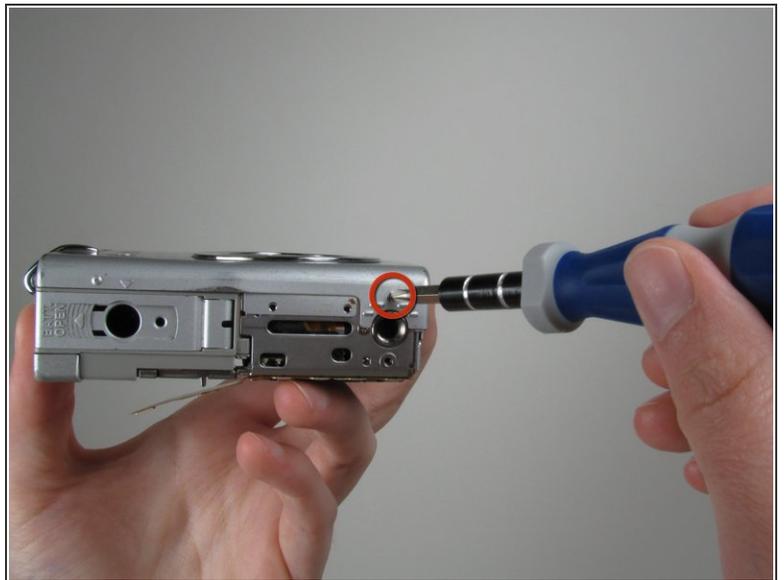
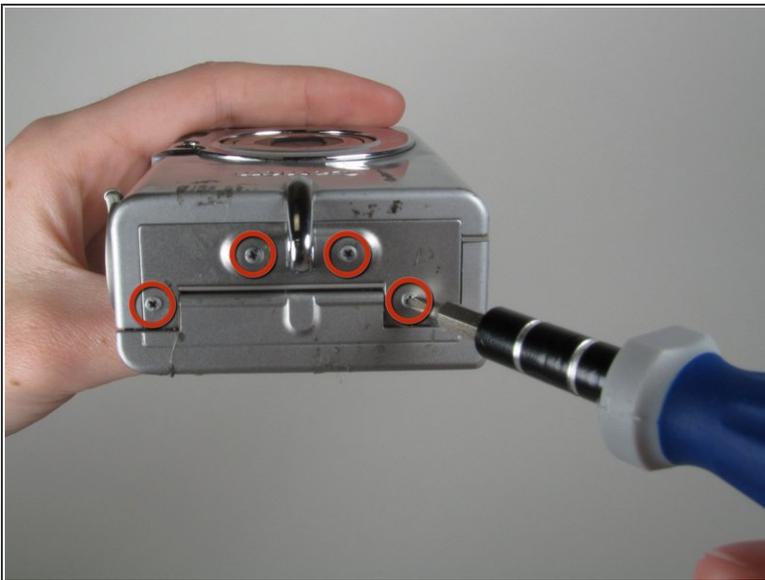
- Open the memory card cover by moving the slide switch toward the top end of the camera.
- Remove the memory card from the slot.

Step 3



- Remove the rear cover from the rest of the camera.
- ⓘ This may require gentle rocking of the case to free it.

Step 4



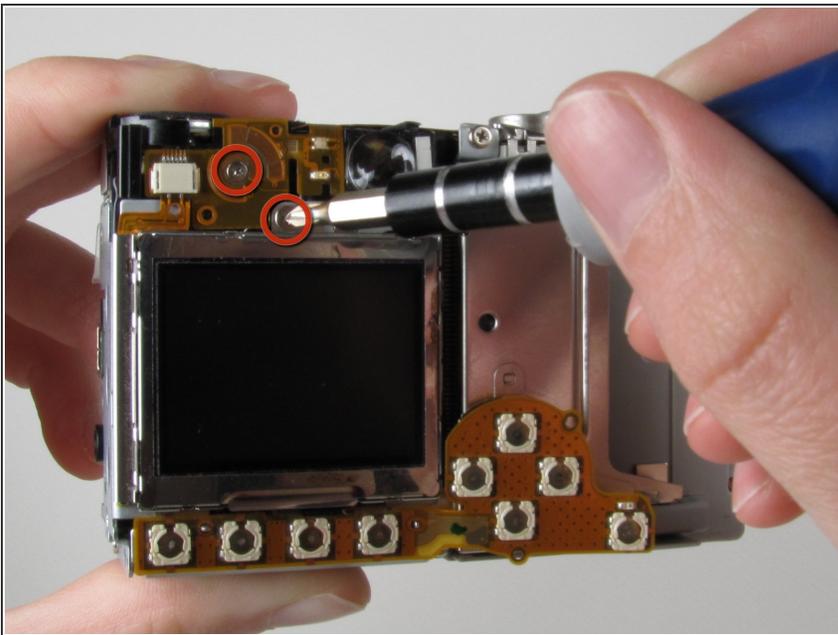
- Unscrew the four Phillips screws from the side of the casing and one screw from the bottom using a #0 Phillips screwdriver.

Step 5



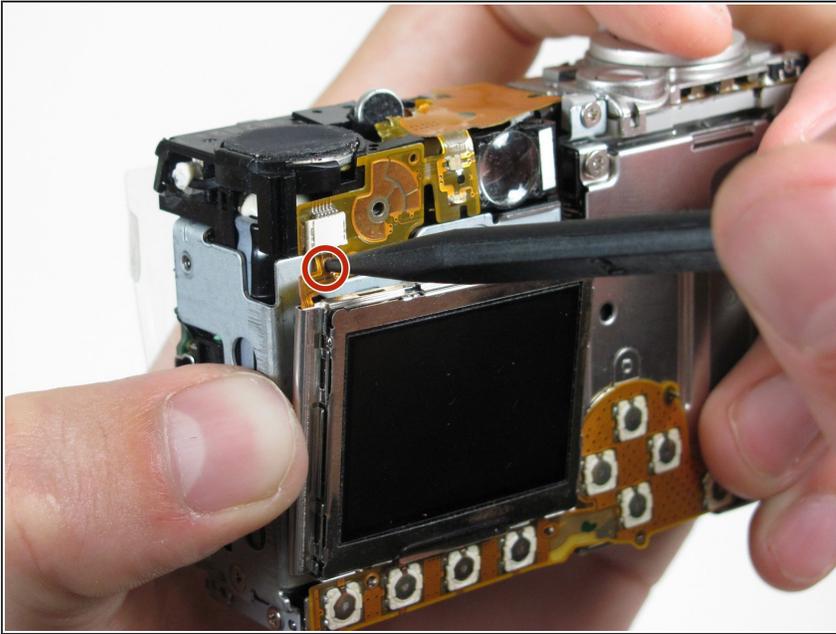
- Free the front cover from the rest of the camera.
- ⓘ The cover may require gentle rocking to remove.

Step 6 — LCD



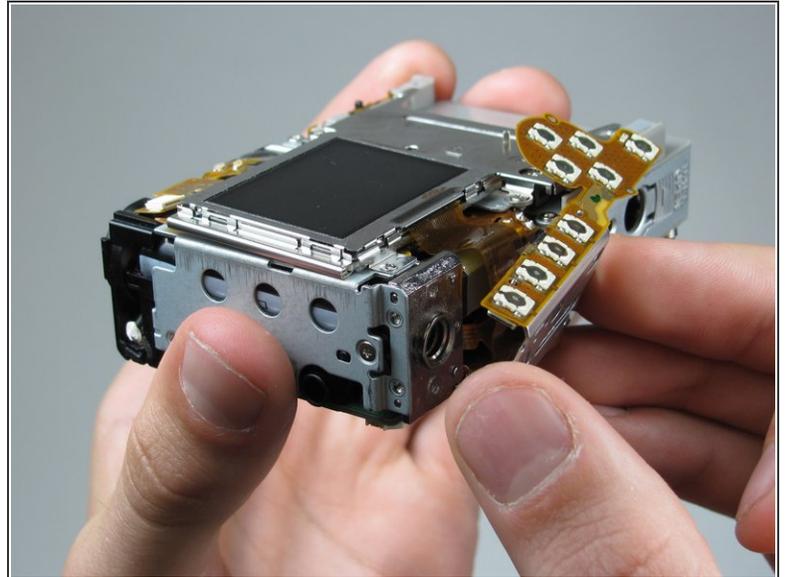
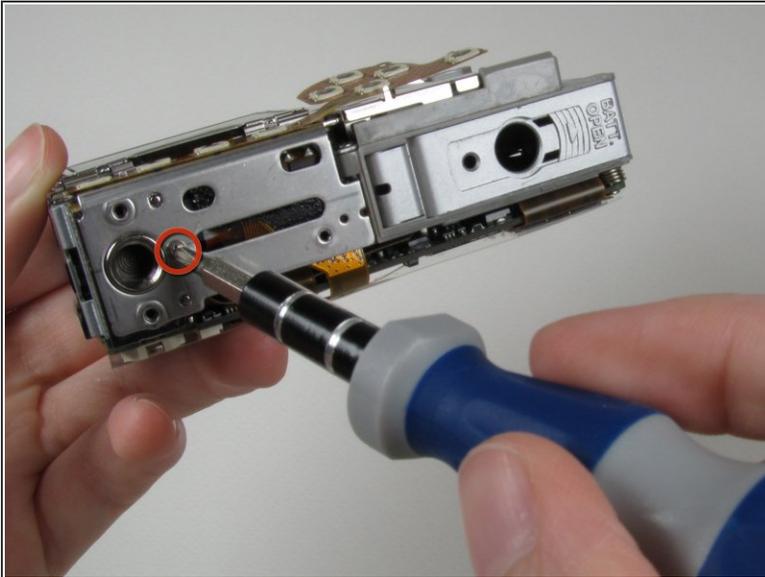
- Unscrew two Phillips screws above the LCD using a #0 Phillips screwdriver.

Step 7



- Gently separate the top of LCD from the rest of the camera using your thumb.
 - ⚠ Be careful not pull the LCD too far because of the ribbon cable connection.
 - Place the Spudger in the hole of the electrical ribbon.
 - Gently pull the ribbon down using the Spudger until it is free from the camera but still connected to the LCD.
- ⓘ The LCD will still be connected to the rest of the camera

Step 8



- Unscrew single Phillips screw with a #0 Phillips screwdriver.
- Free the bottom panel and attached ribbon from the rest of the camera.

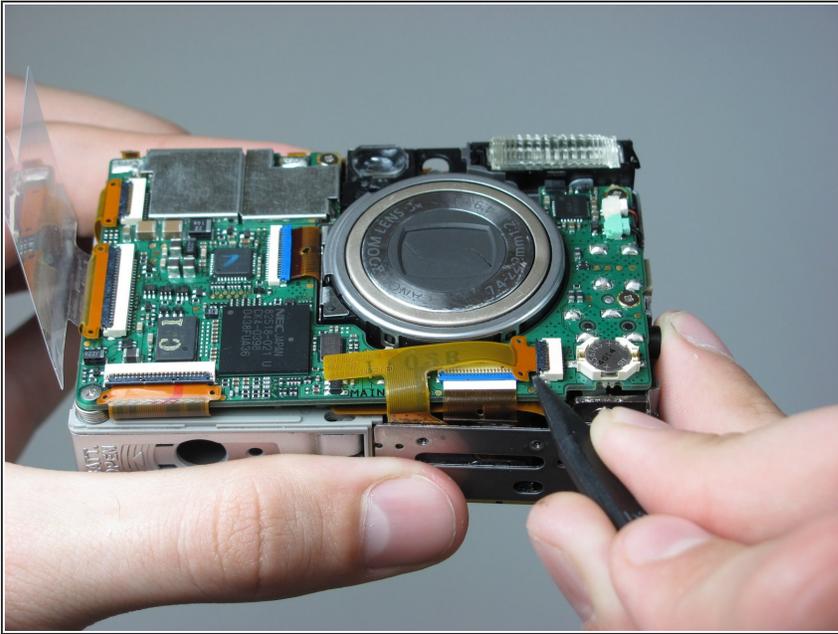
⚠ Be careful not to damage the ribbon.

Step 9



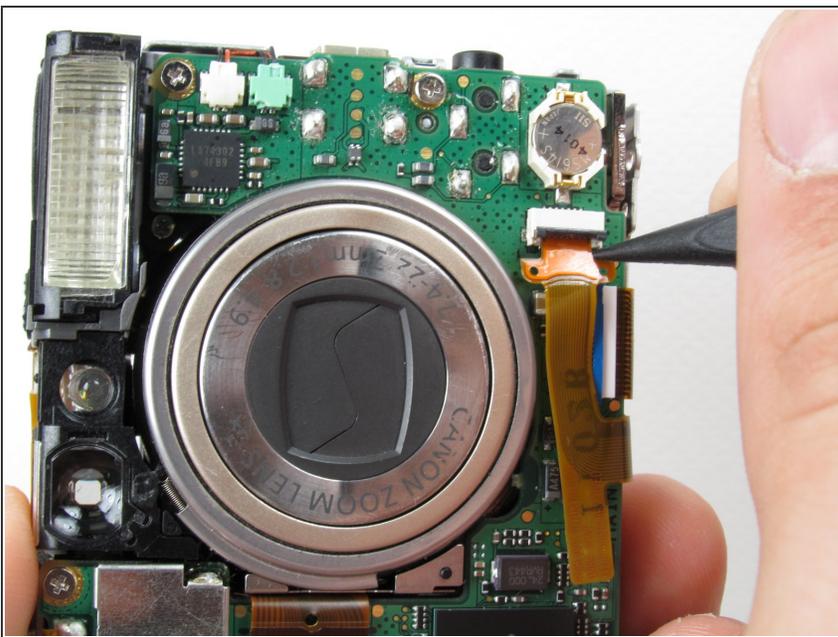
- Turn over the camera.
- Lift the clear plastic from the face of the camera, peeling the adhesive just below the zoom lens.
- ⓘ The plastic will still be connected on the left side.

Step 10



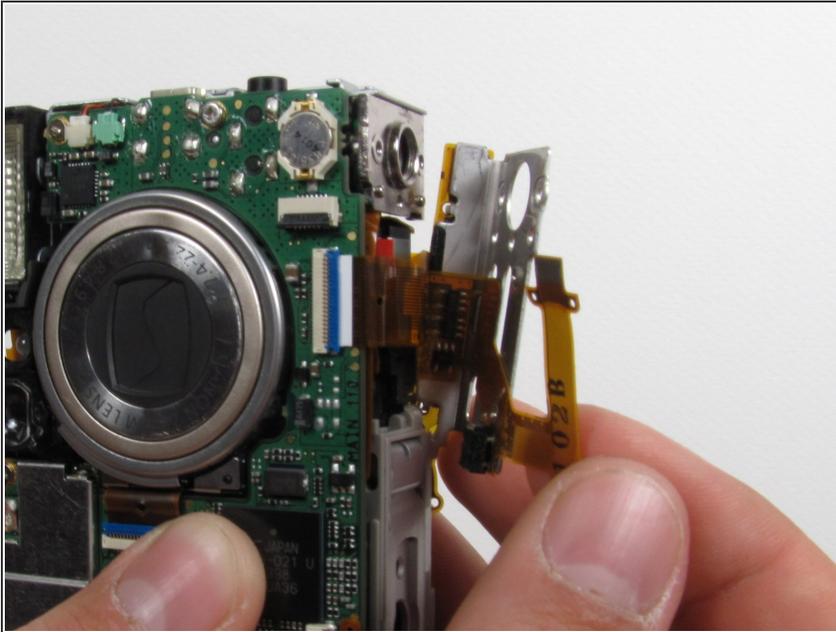
- Place the Spudger between the orange ribbon and the black ribbon gate.
- Lift the ribbon gate using the Spudger.

Step 11



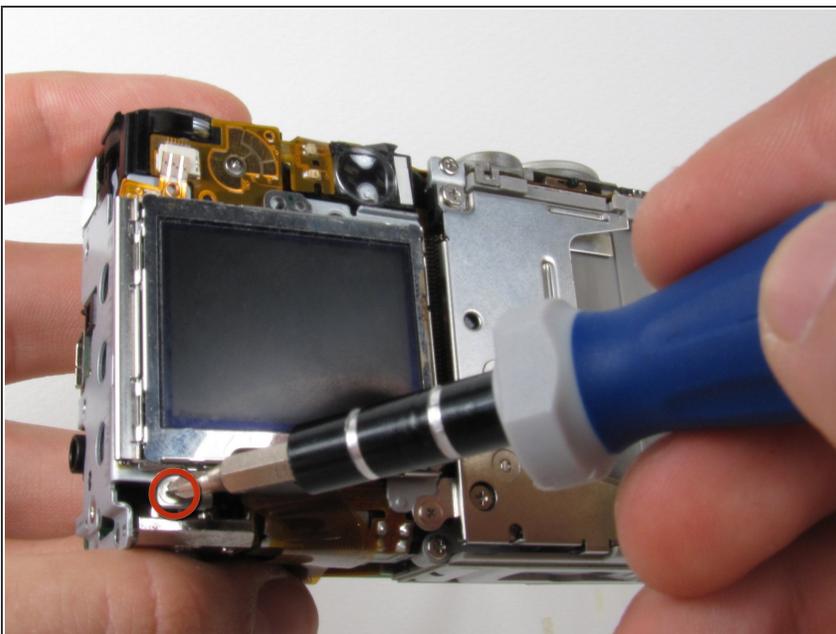
- Place the Spudger in the corner of the ribbon above the hole.
- Remove the ribbon from the ribbon gate by pulling the Spudger away from the gate.

Step 12



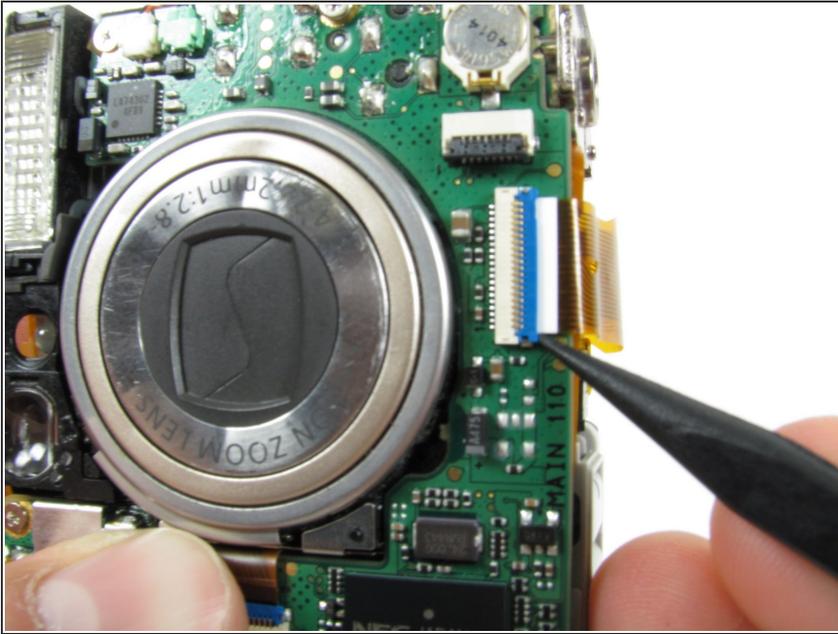
- Free this ribbon and the bottom panel from the rest of the camera.
- ⚠ Be careful not to damage the ribbon.

Step 13



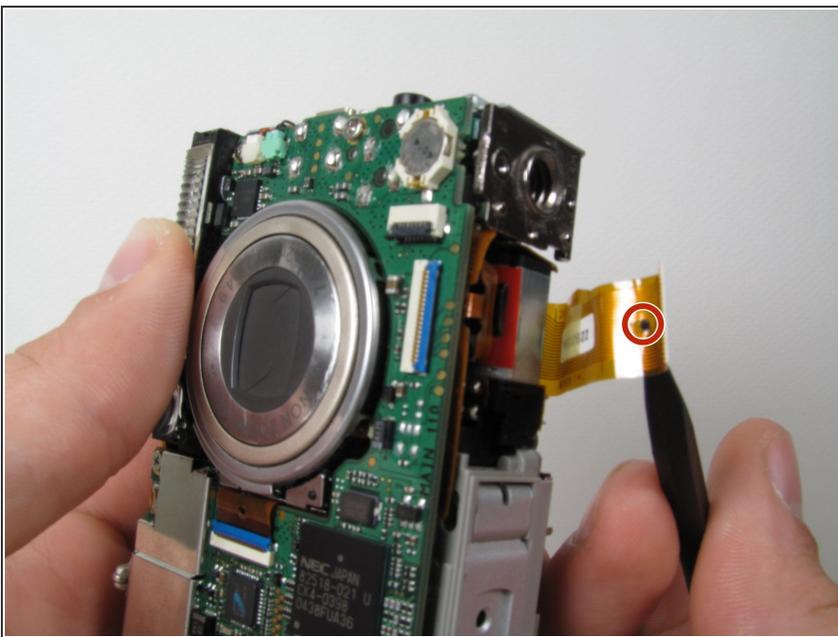
- Turn the camera over so you can see the LCD.
- Remove single Phillips screw below the LCD using a #0 Phillips screwdriver.

Step 14



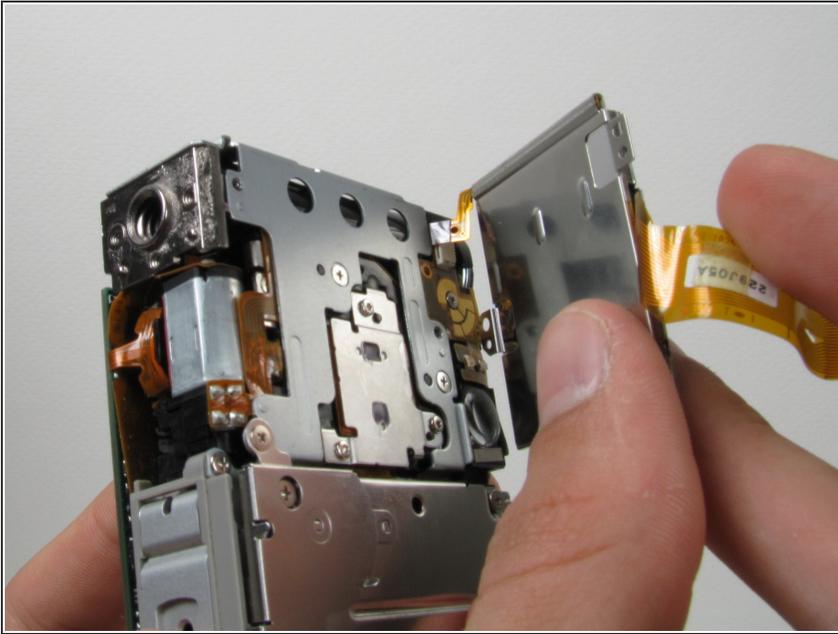
- Lift the blue ribbon gate using the Spudger.

Step 15



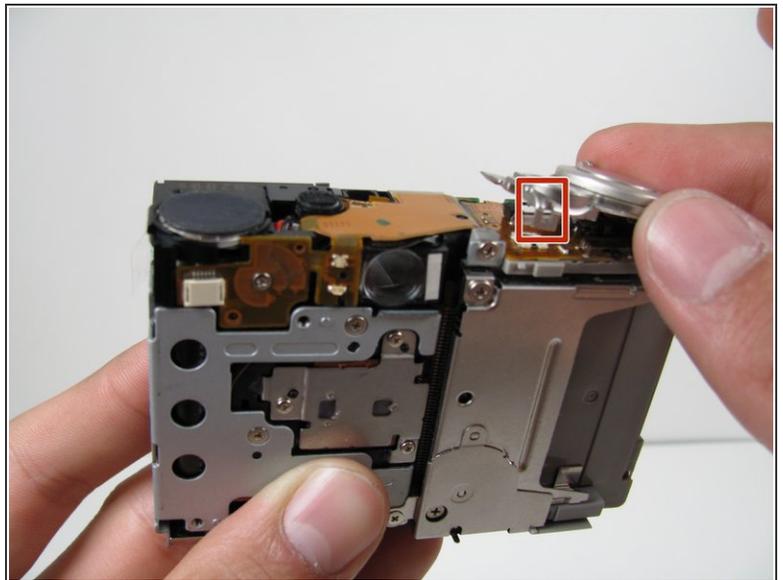
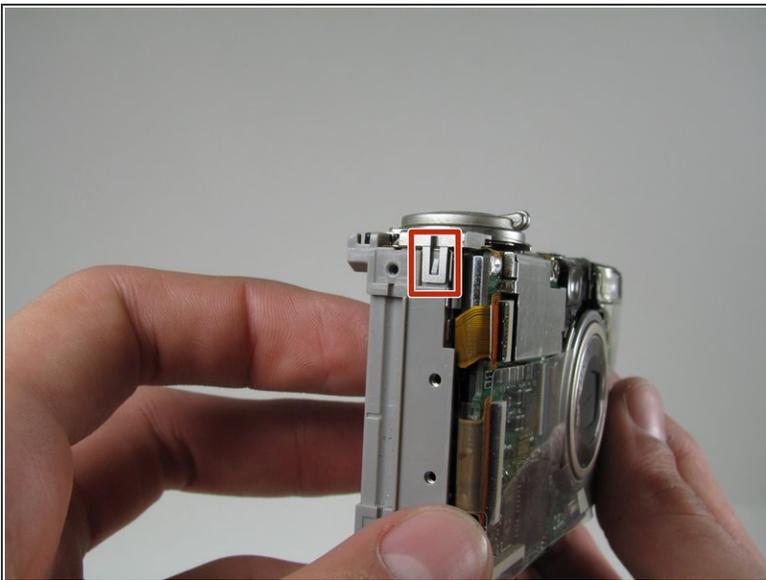
- Insert the Spudger into the hole of the ribbon.
 - Move the Spudger away from the gate to fully remove ribbon.
- ⚠ Be careful not to damage the ribbon.

Step 16



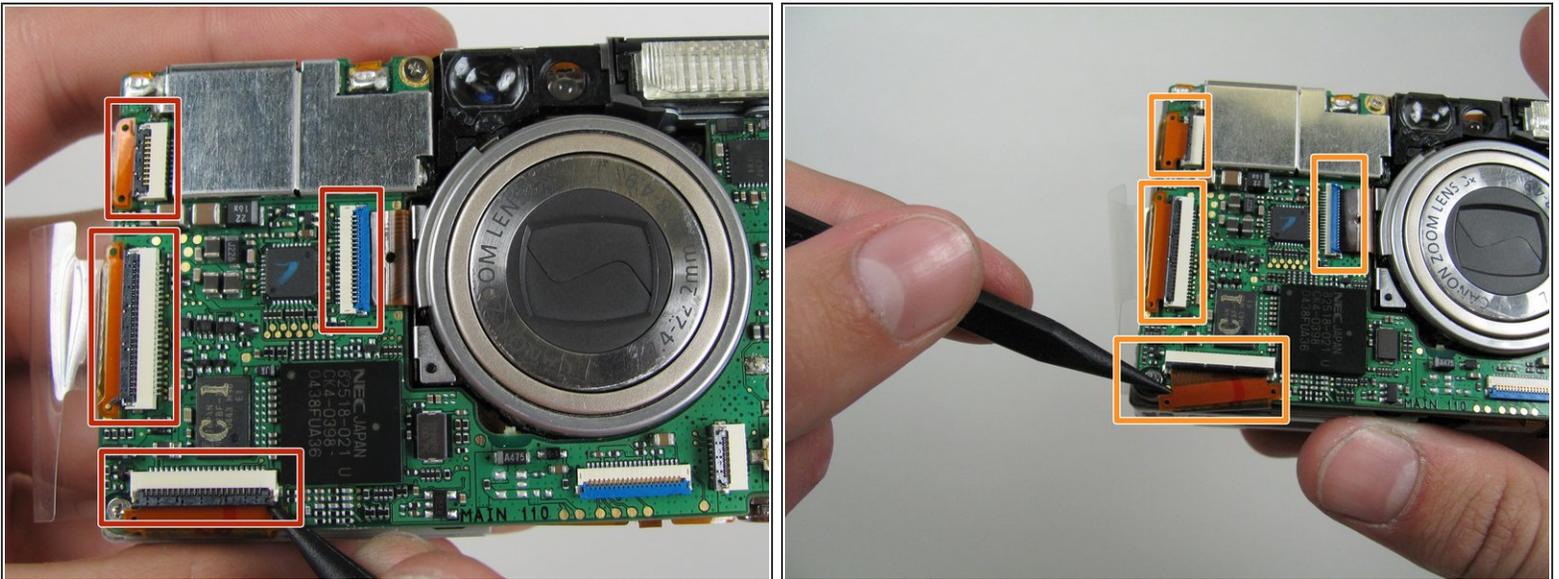
- Lift the LCD away from the rest of the camera.

Step 17 — Logic Board



- Lift off the capture button by wiggling it back and forth while pulling upward.
- Be careful not to damage the two clips.

Step 18



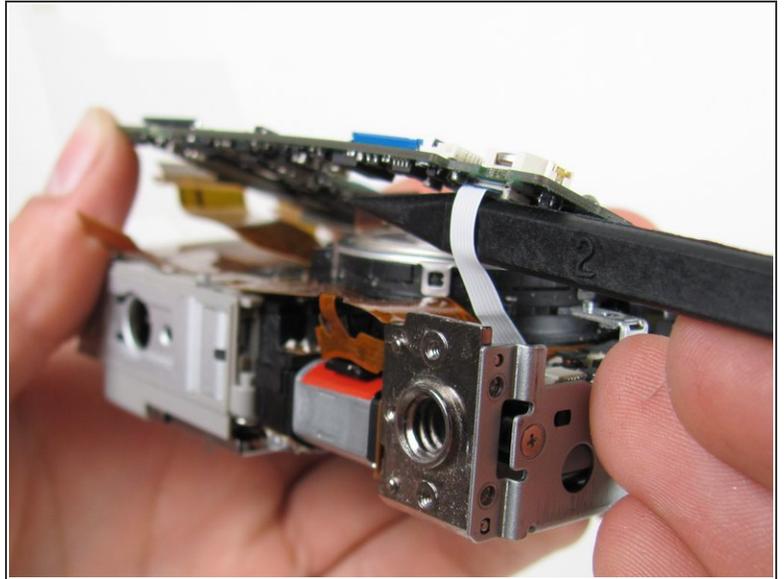
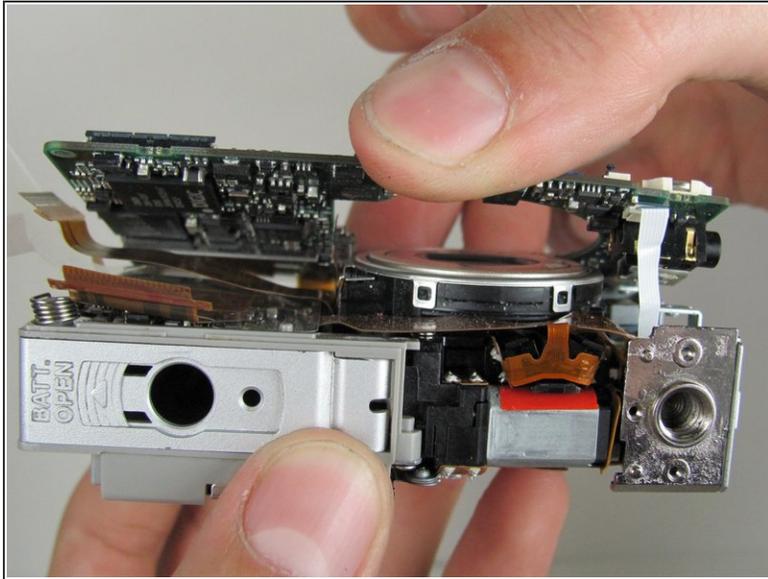
- Flip open the four ribbon gates using the Spudger.
- Gently pull out the ribbon cables from the gates using the Spudger.

Step 19



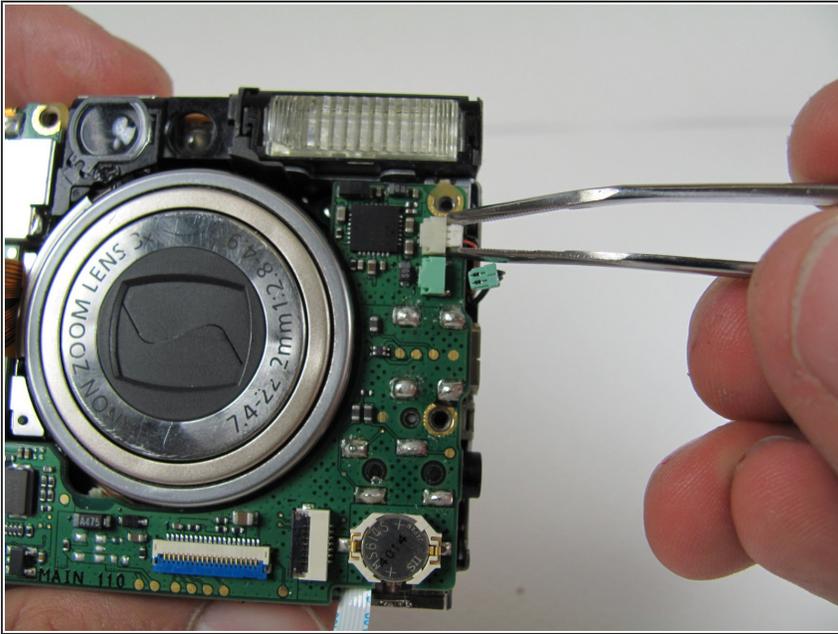
- Unscrew the four Phillips screws using a #0 Phillips screwdriver.

Step 20



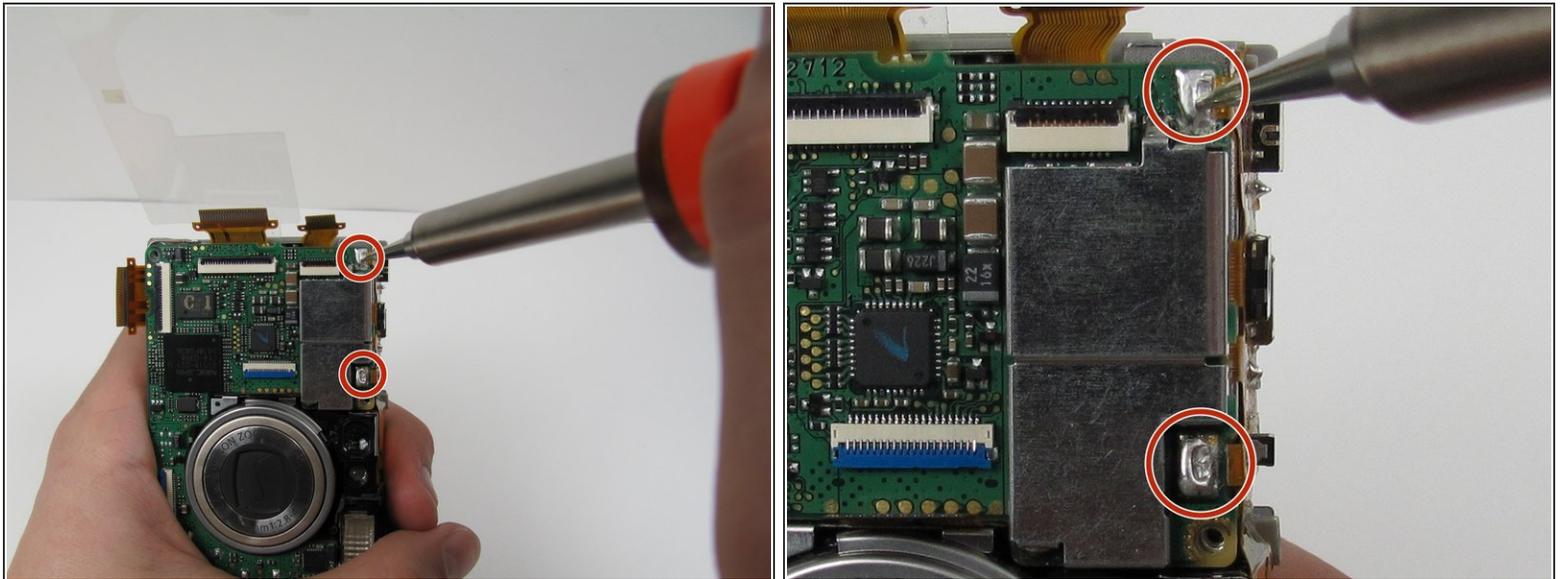
- Gently lift the logic board.
- ⚠ Be careful not to pull too hard and damage the white ribbon cable.
- Place the Spudger so that it is between the logic board, the white ribbon cable, and the rest of the camera.
- Remove the white ribbon cable by pulling the Spudger away from the camera, keeping it parallel to the logic board.

Step 21



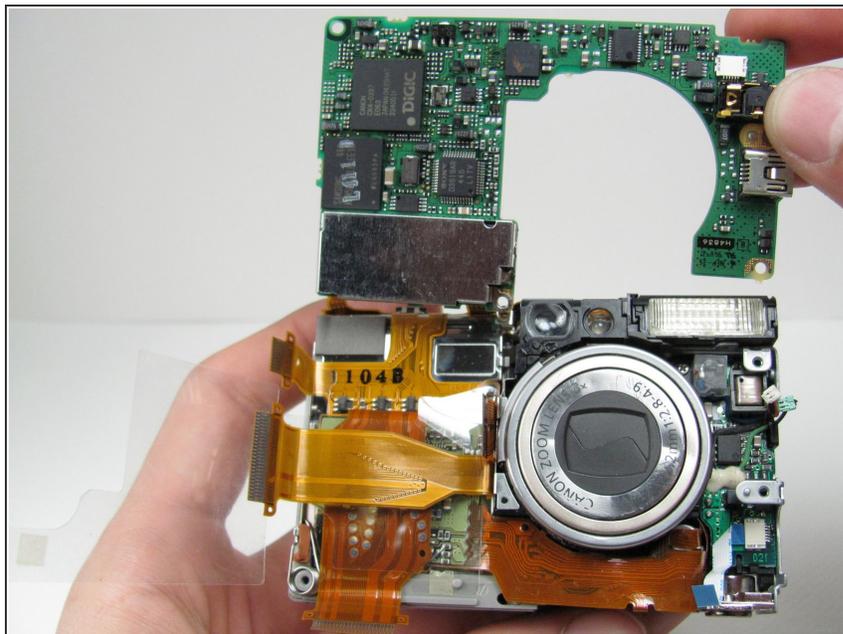
- Lay the logic board back down so that it is resting on the body of the camera.
- Pull the two plugs (white and green) out to the right from the logic board using the tweezers.

Step 22



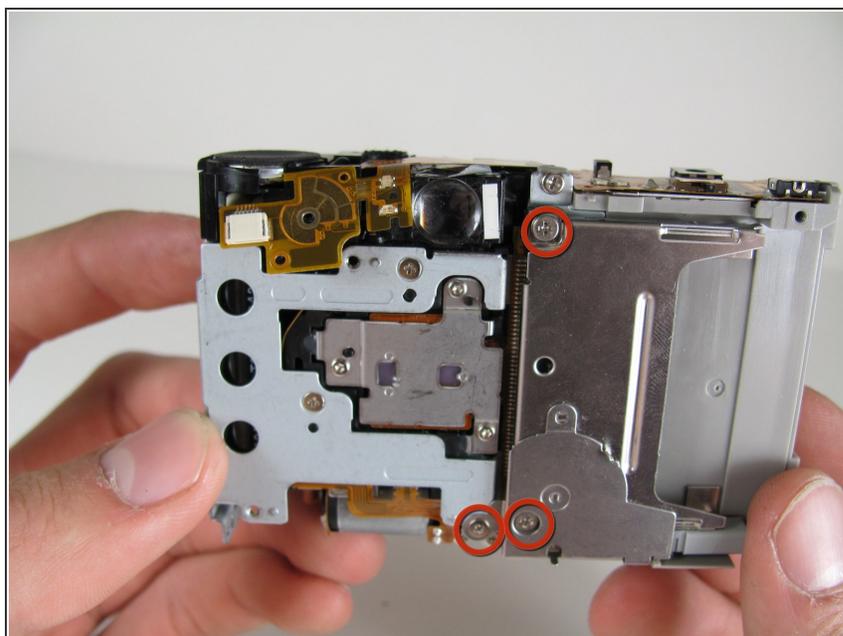
- i** We're now ready to begin the desoldering process. You'll need a soldering iron, solder, and desoldering wick. You should be able to find these items at a Radio Shack if you don't already have them.
- !** Please do not perform this step if you are not comfortable or have previous experience with soldering. Doing so, could cause severe damage to your camera.
- Desolder the two soldered ribbon cables attached to the logic board.

Step 23



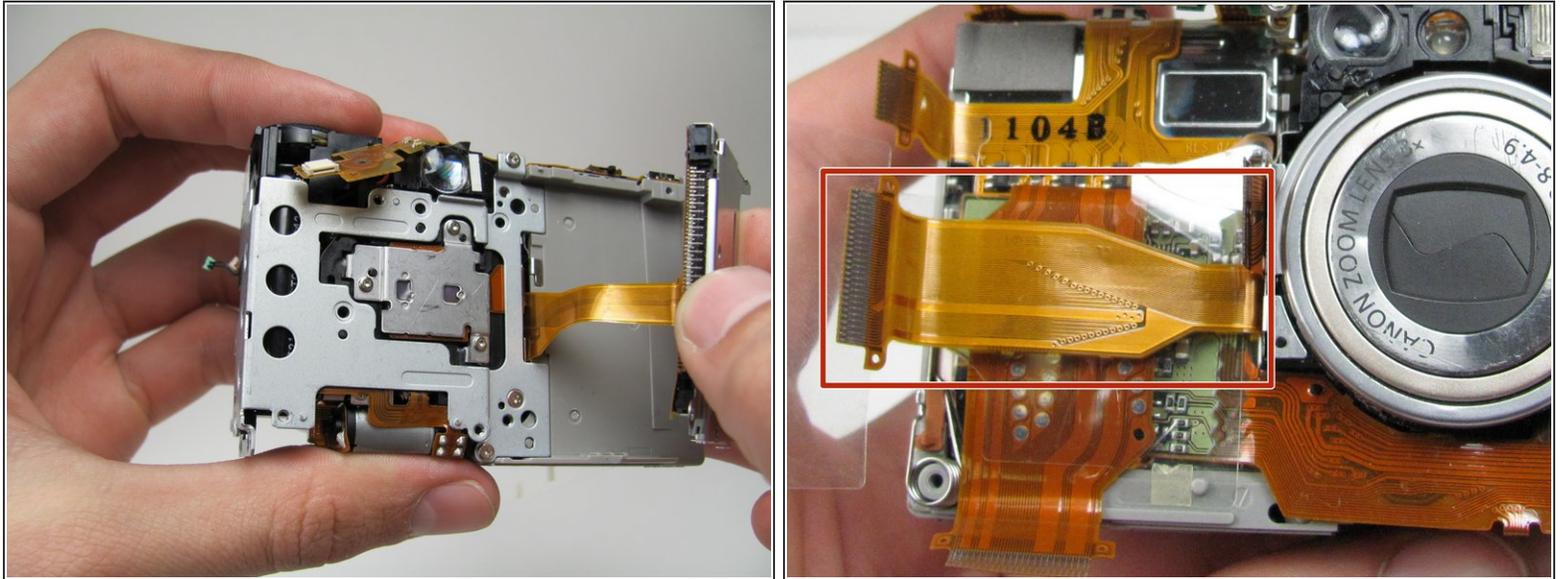
- Free the logic board from the rest of the camera.

Step 24 — Breakdown to Three Parts



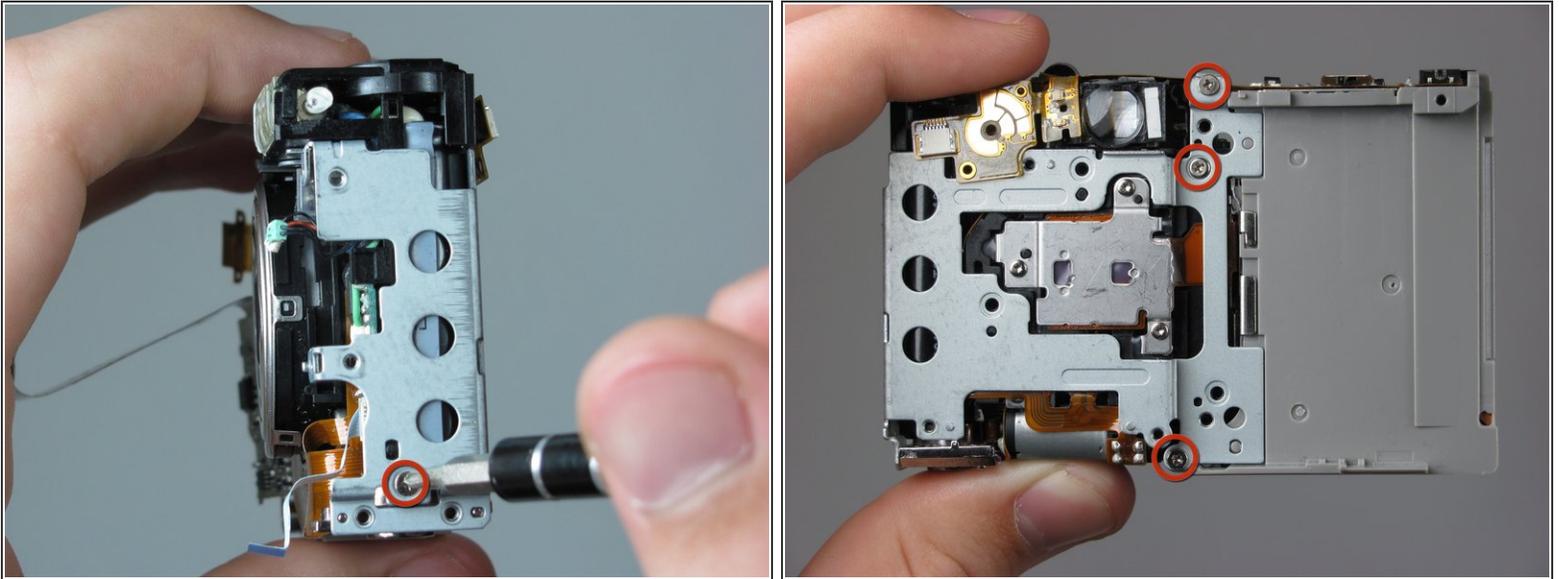
- Turn the camera over so that the back is facing you.
- Unscrew the three Phillips screws using a #0 Phillips screwdriver.

Step 25



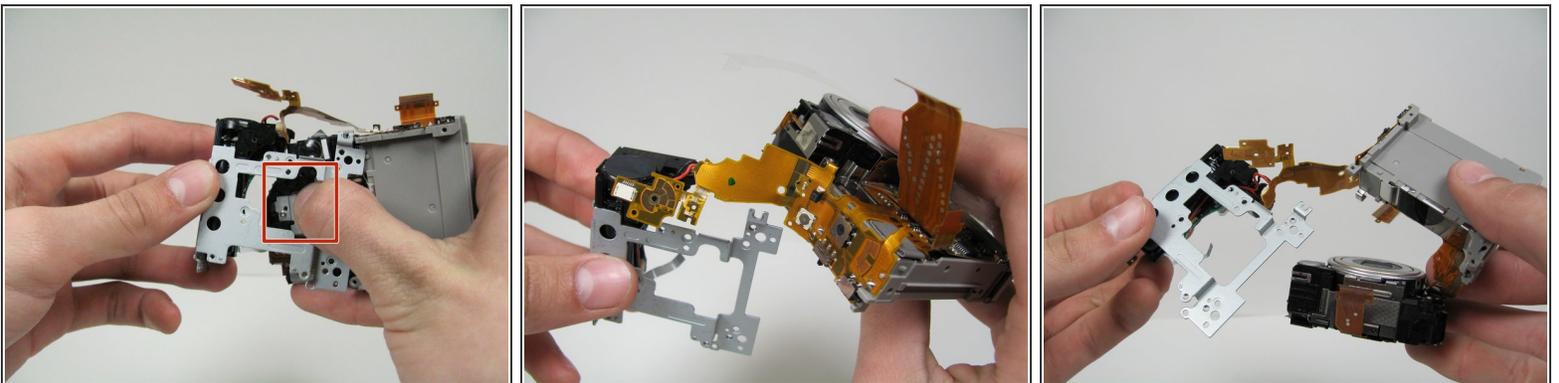
- Lift off the Memory Card casing, sliding the ribbon cable through the camera. Keep pulling until the Memory Card and ribbon cable have been removed from the camera.
- Note that the ribbon cable is coming from the external front portion of the camera. Make sure that the ribbon cable will not get caught on anything.

Step 26



- Unscrew one Phillips screws from the side and three Phillips screws from the back panel using a #0 Phillips screwdriver.

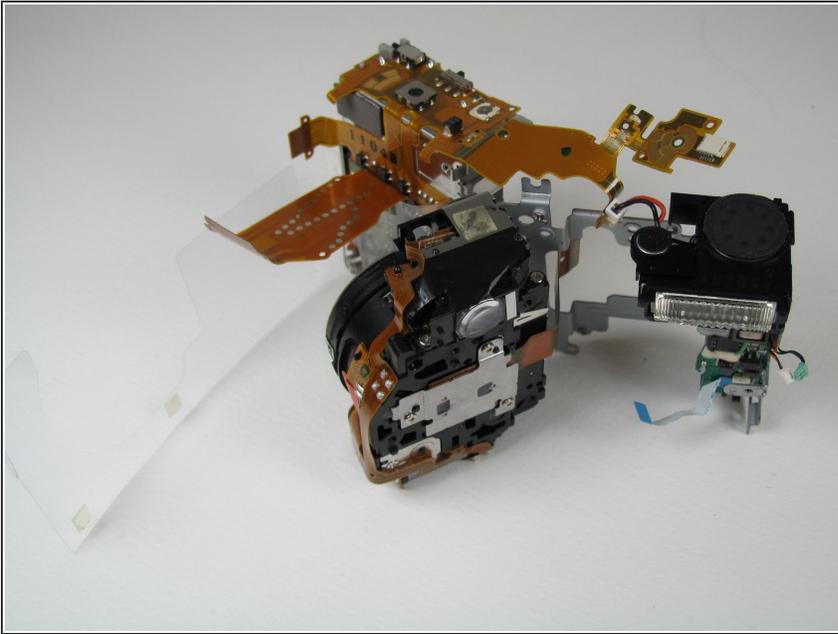
Step 27



- Firmly push on the back of the zoom lens, removing it from the left portion of the camera.
- Lift the zoom lens away from the left portion of the camera so that there are three components connected by a ribbon cables.

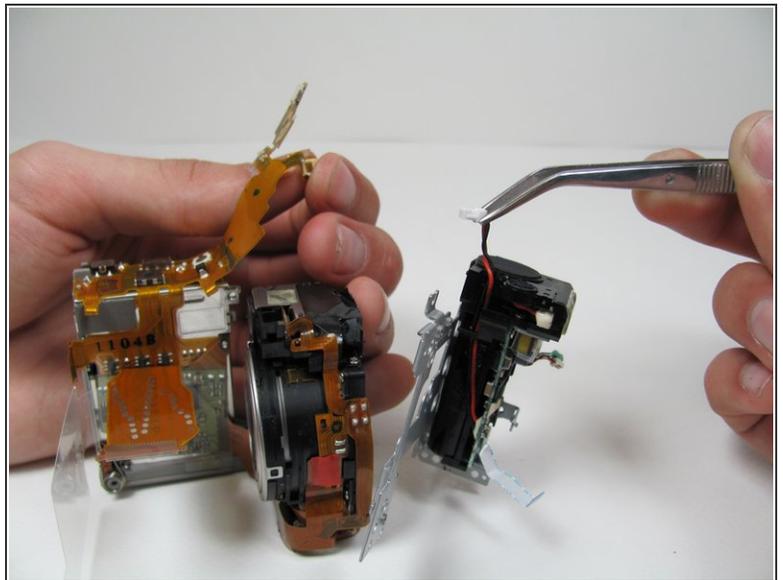
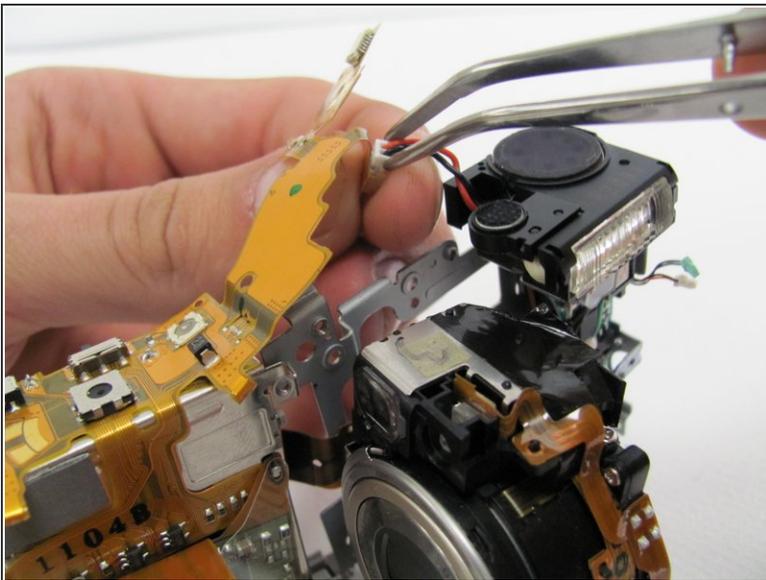
 Be careful not to tear the ribbon cables.

Step 28



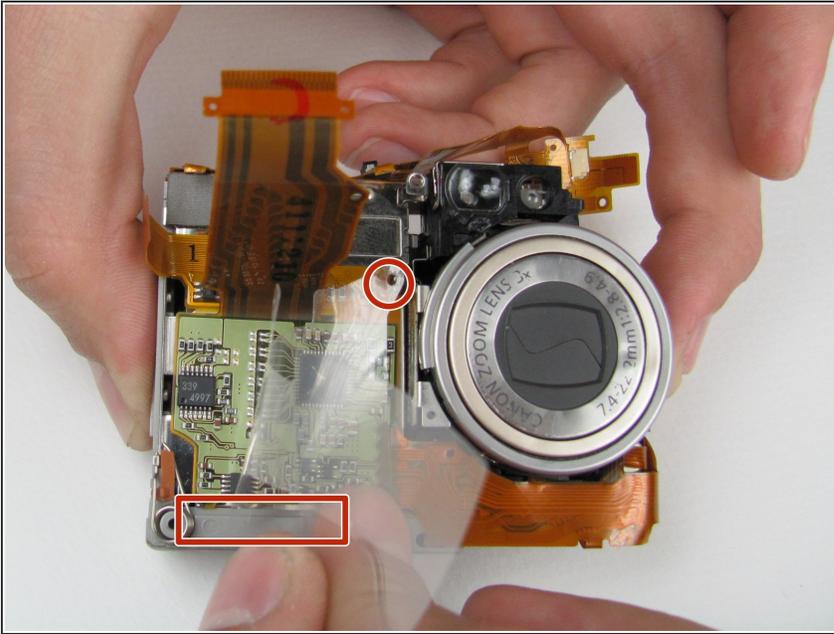
- The camera should now be able to be set in this orientation without too much stress on the cables.
- ⓘ The clear plastic is still attached to the battery casing.

Step 29



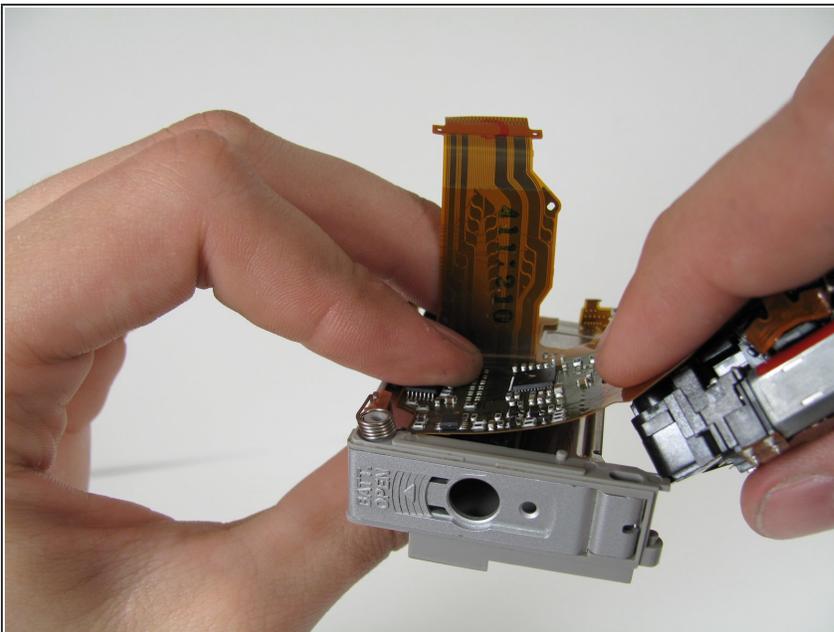
- Locate the ribbon cable going from the battery case to the flash assembly.
- Remove the plug from the ribbon cable using the tweezers.
- ⓘ The flash assembly is now free from the rest of the camera.

Step 30



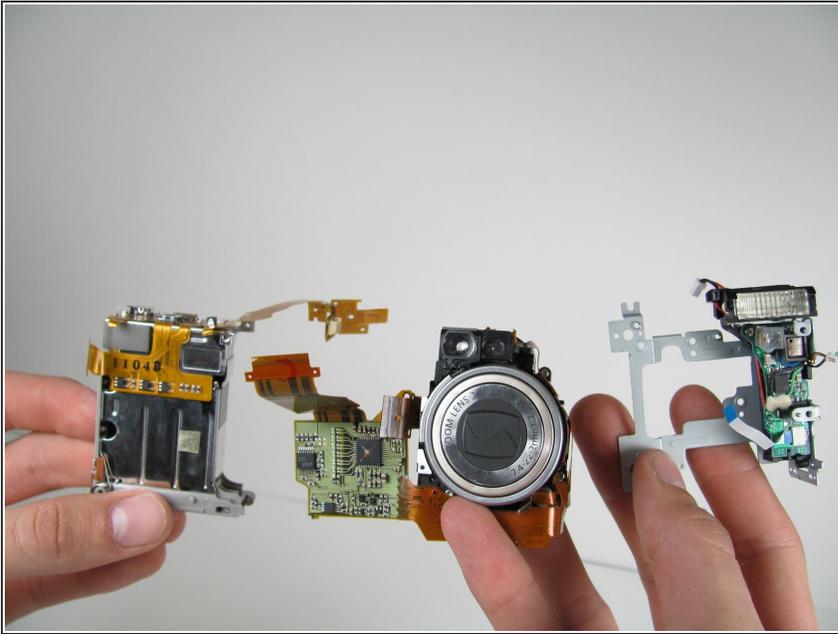
- Pick up the remaining battery casing and zoom lens.
- Pull off the clear plastic.
- The clear plastic is secured by adhesive along the bottom edge and a small hook.

Step 31



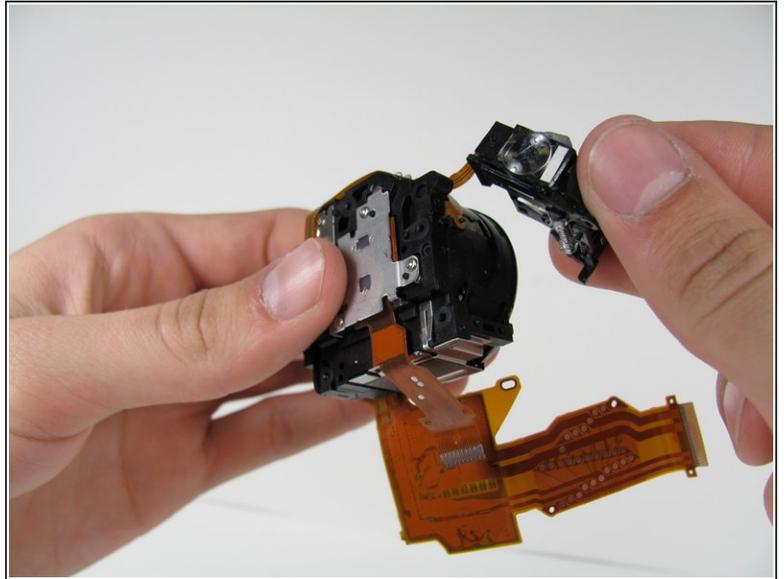
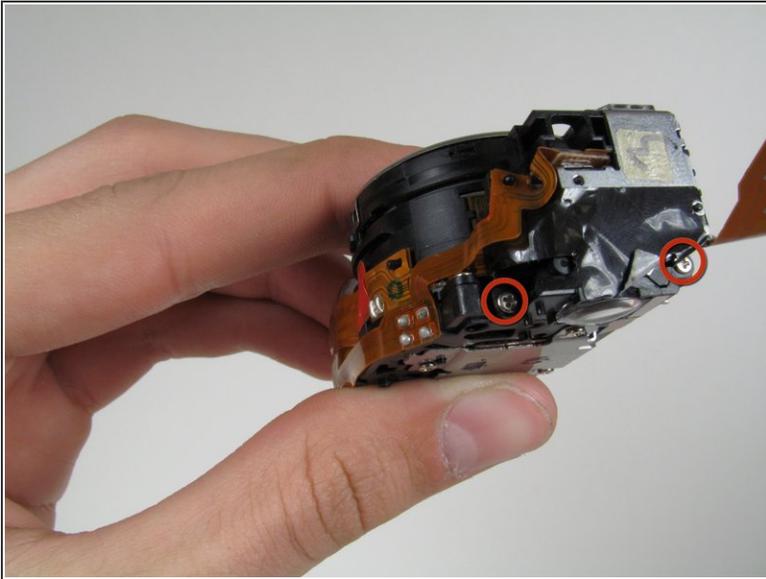
- Lift the zoom lens off of the battery casing.
- ⓘ The back of the circuits are attached to the battery casing by a light adhesive, which can be removed with a slight pull upwards.

Step 32



- The remaining pieces from left to right are: the battery casing, zoom lens and flash assembly.

Step 33 — Zoom Lens



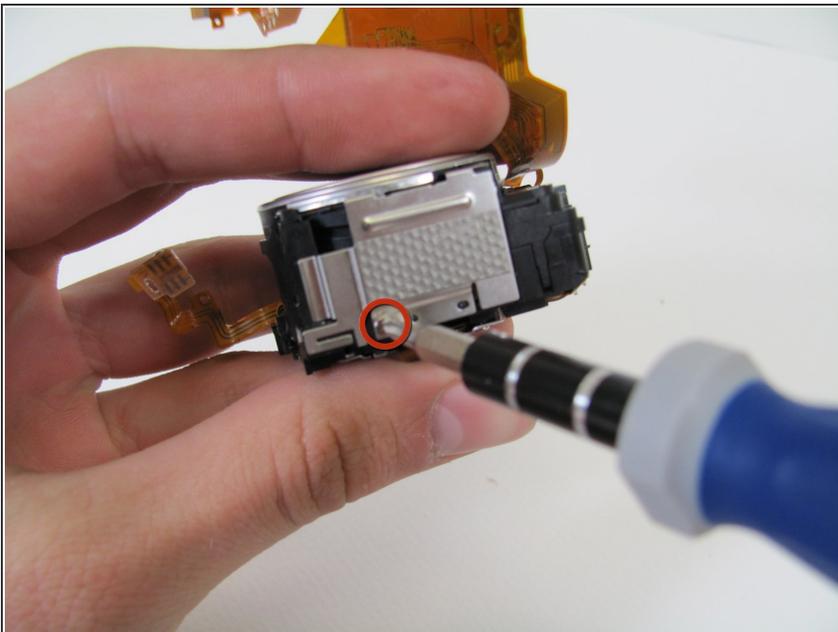
- Pick up the zoom lens
- Remove the two Phillips screws using a #0 Phillips screwdriver.
- ⓘ Once the screws are removed, there will be two components connected by a ribbon cable.
- ⚠ Be careful not to break the cable.

Step 34



- Hold the two components back together.
 - Remove the the LED from the circular socket by lifting the ribbon cable's end up and away from you.
 - Unhook the lower part of the ribbon from the plastic pin.
- i** Now the two components are free to separate.

Step 35



- Unscrew one Phillips screw, using a #0 Phillips screwdriver.

Step 36



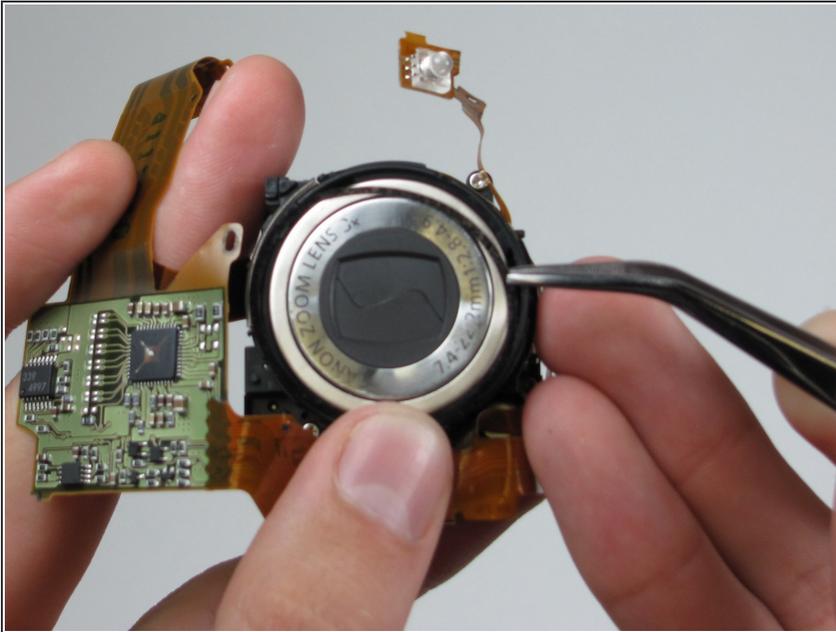
- Lift off the panel, exposing the zoom lens gear drive.

Step 37



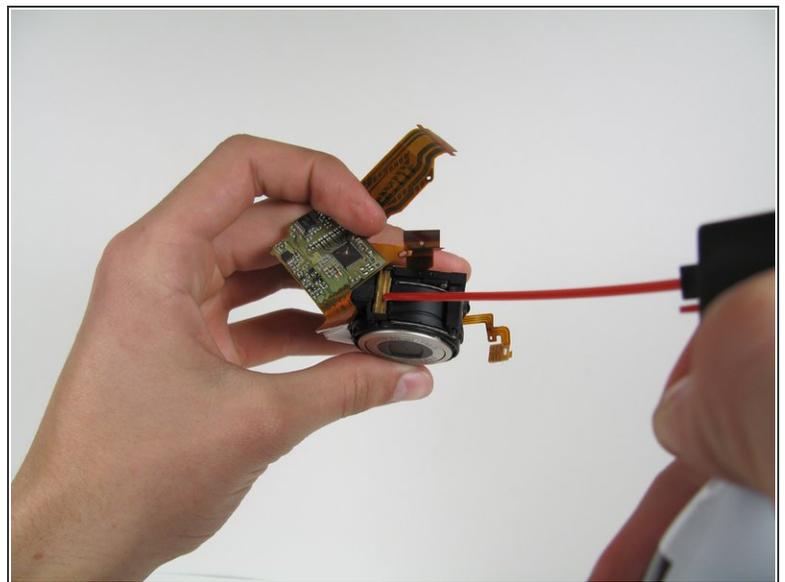
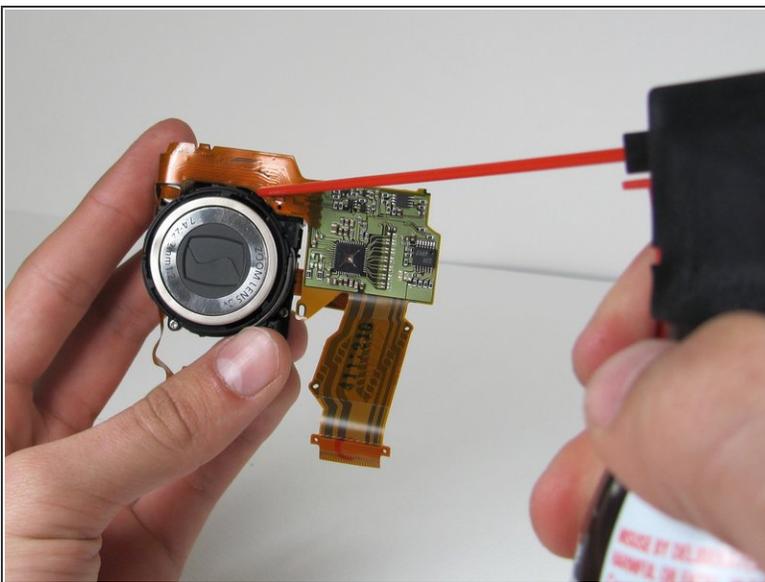
- Lift off the shiny zoom lens ring.

Step 38



- Lift out the ring under the shiny ring, using a tweezers.

Step 39



- Blow out any obstructing particles using compressed air in the slot created by the removal of the previous rings.
- Blow compressed air into the opening where you can see the gear track.

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