Repairing Casio Exilim EX-Z350 Lens mechanics

Stuck lens mechanics not working/stuck due to dirt.

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INTRODUCTION

Here we´re dismantling a digital camera in order to clean a stuck/obstucted lens mechanic.

Camera fails with "lens error" while switching on.

Happens because the camera is not rugged and dirt can penetrate the lens from the front.

Guide describes taking the camera apart including the complete lens. During all steps careful cleaning / removing of dirt is not speciffically mentioned in the steps.

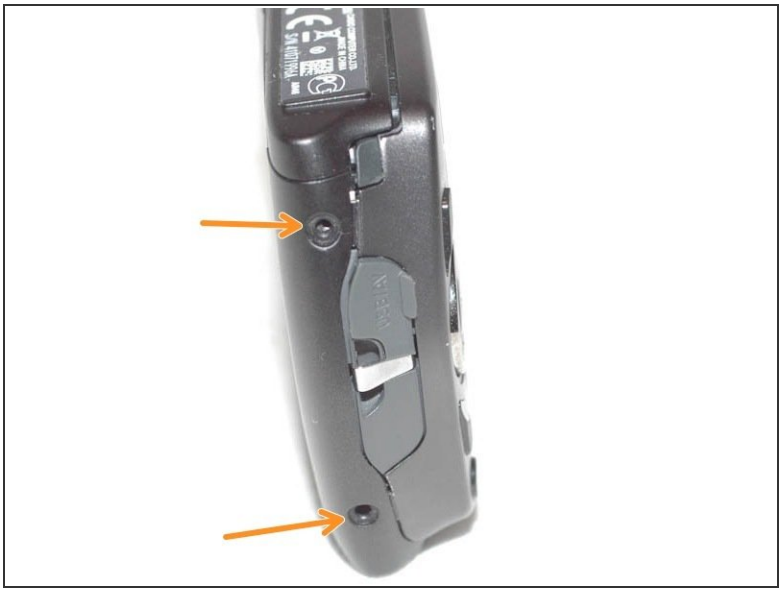
TOOLS:

- Phillips #2 Screwdriver (1)
- Spudger (1)
- Small Needle Nose Pliers (1)

Step 1 — Opening camera case

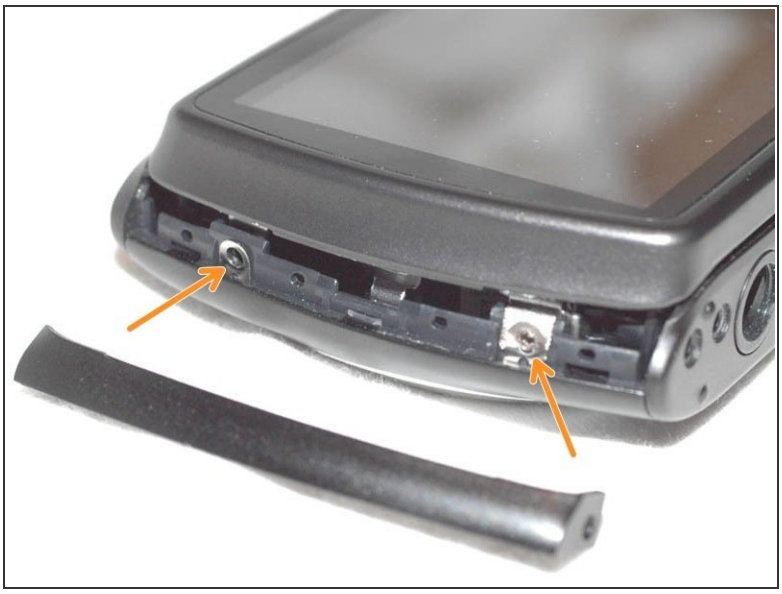
Camera flash circuitry contains a high-voltage capacitor. This is charged after turning the camera off and removing the battery. Be sure you either discharge the capacitor or at least do not touch it in any way.

Step 2 — Remove body screws



- Remove three screws on bottom and two on the side

Step 3 — Remove clip cover

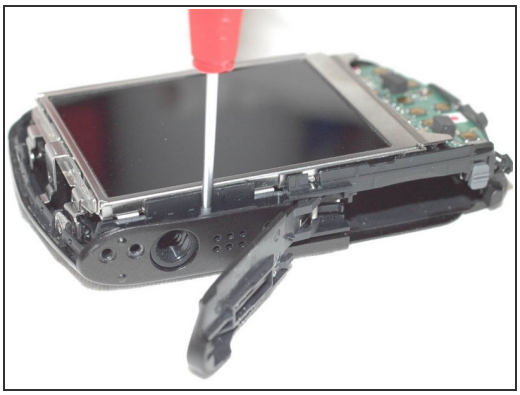
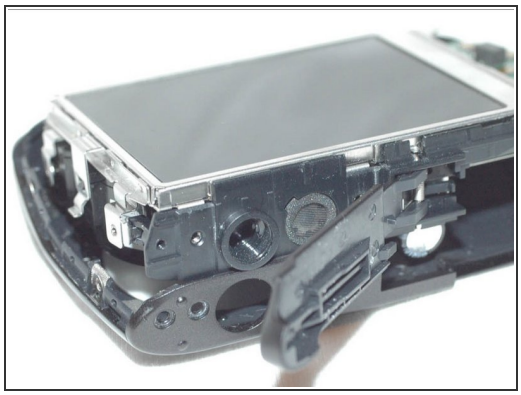


- With screwdriver remove the cover that hides more screws
- Remove two additional screws.
- On the picture, the previous owner hasn´t removed the screws but openend the camera nevertheless

Step 4 — Remove rear cover

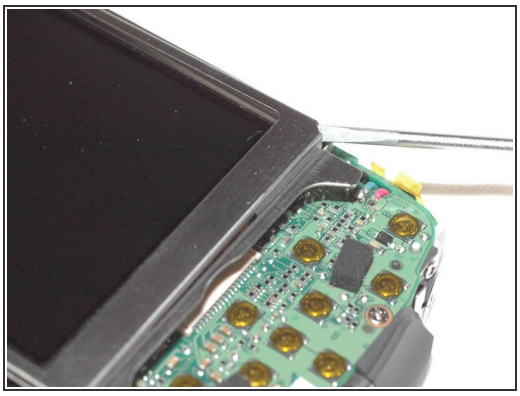
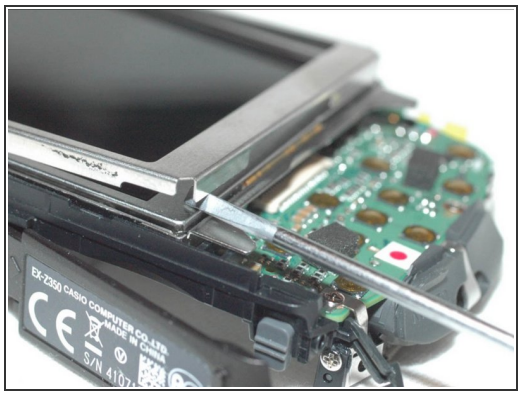
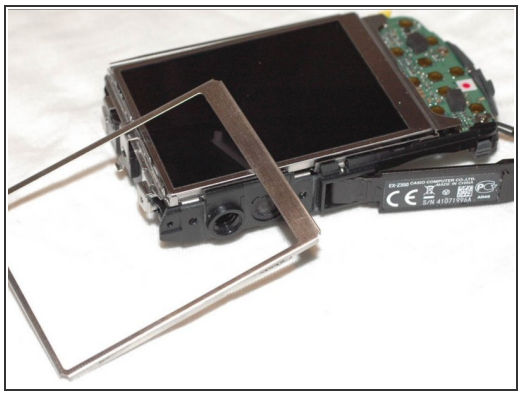
- Carefully lift rear cover with a spudger. Start with bottom side first, then top side.

Step 5 — Remove camera from front housing

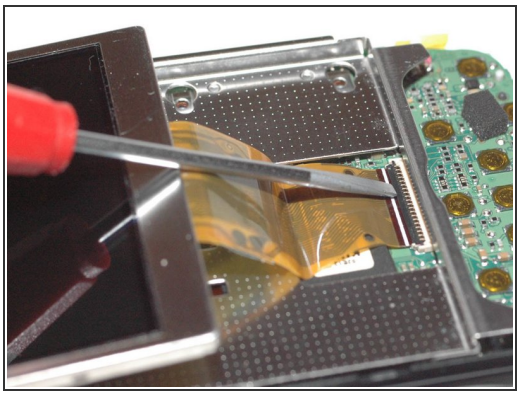
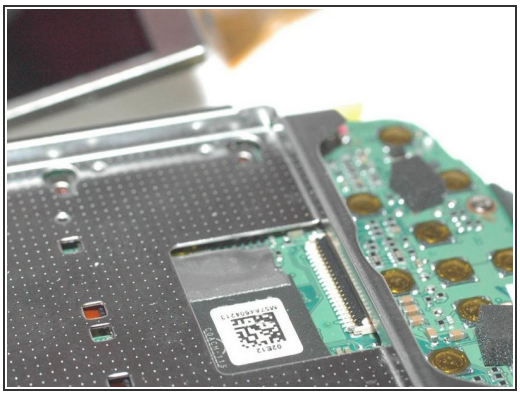
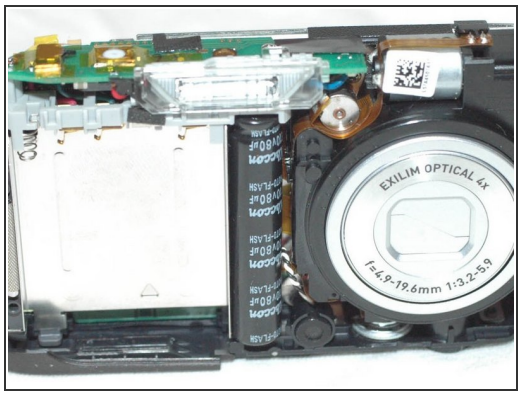

- Insert spudger as shown to lift camera out of case on bottom area around the tripod thread first
- Once the bottom part is out, its easy to carefully pull out the camera
- Parts separated so far on last picture

Step 6 — Remove display frame

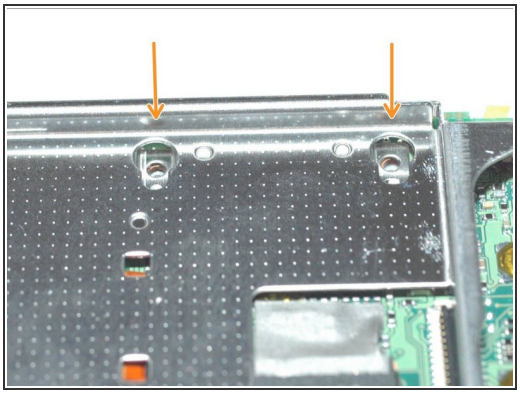
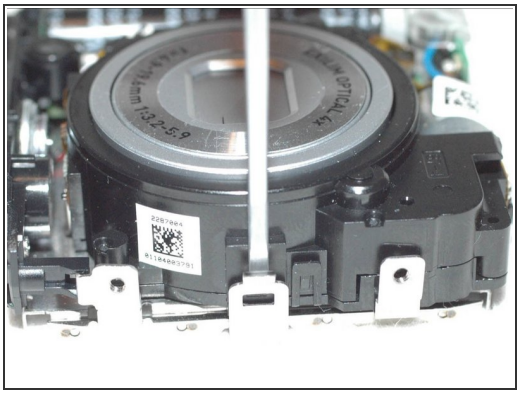
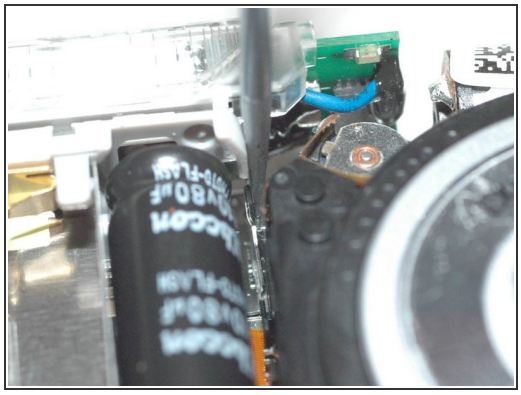
- With fine tip screwdriver lift metal frame that holds LCD display on one corner.
- Carefully continue on other corner until metal frame snaps out

Step 7 — Unclip LCD display

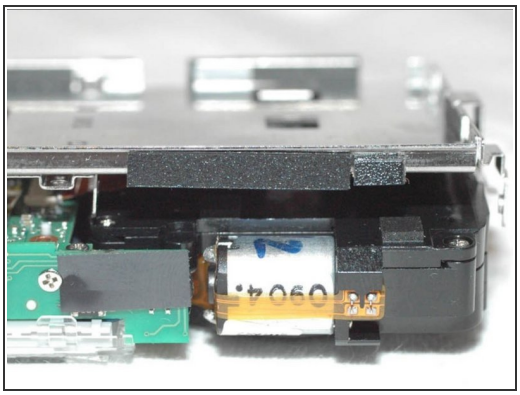
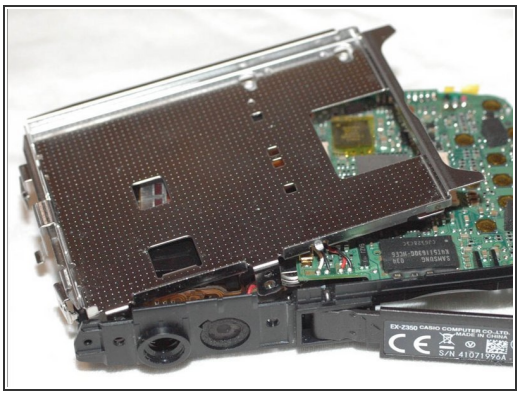
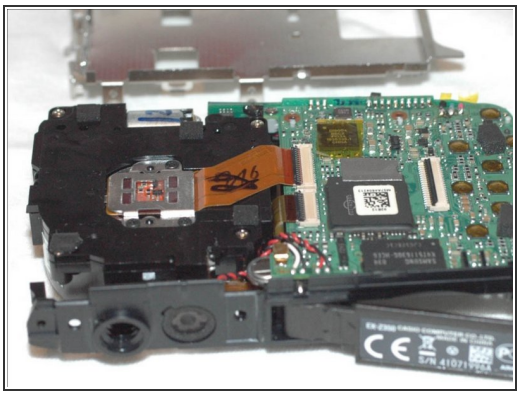
- To release the LCD ribbon cable lift the tiny black bar carefully with a fla blade screwdriver or spudger
- Second pic shows open connector
- Front shot of the camera

Step 8 — Remove metal frame bracket (1)

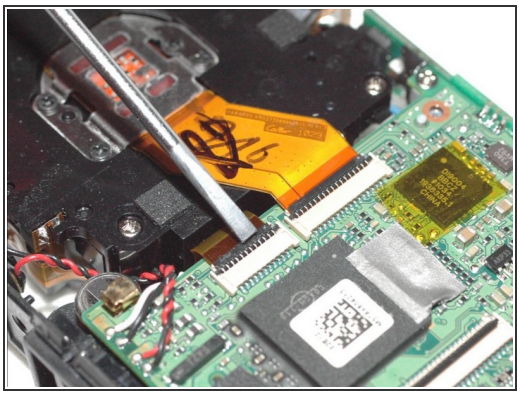
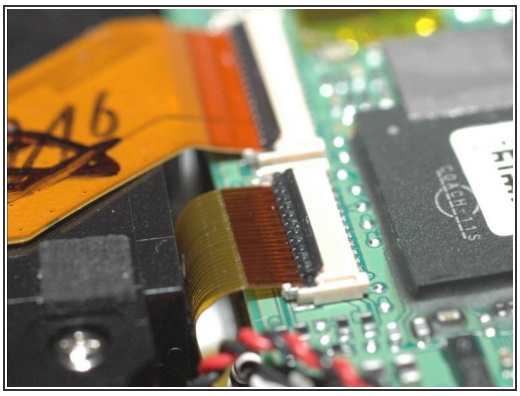
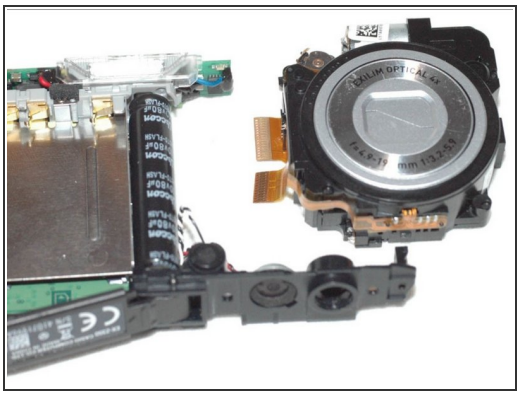
- Remove the two screws shown in first picture
- Unhook the first easy to access clip on the side of the lens body
- Unhook the second more obstructed hook. Be careful not to touch the capacitor's connectors (black round thingy), it might still be charged.
- If the two hooks are unhooked, the lens body can be lifted upwards.

Step 9 — Remove metal frame bracket (2)

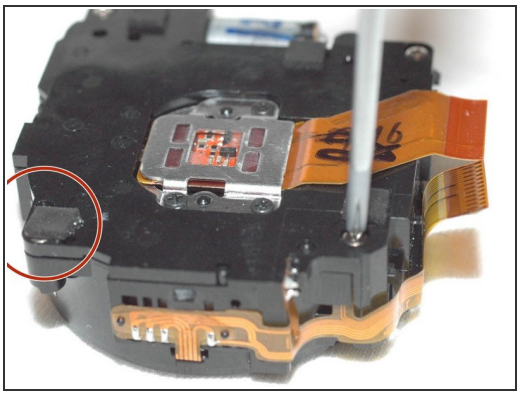
- The metal frame separates from the rest of the camera.
- It´s still connected to the black plastic of the bottom part.
- Rotate it counterclockwise to unhook it from the little plastic pins
- Finally the metal frame is gone

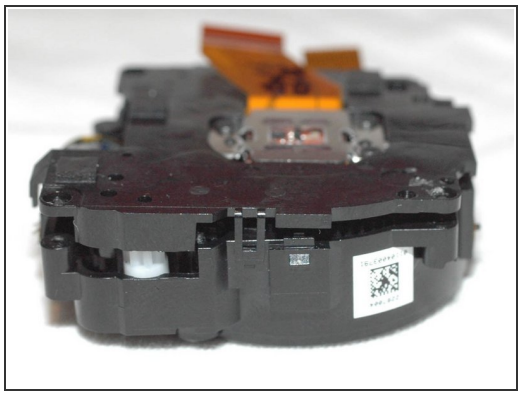
Step 10 — Remove lens body ribbon cable

- As before, carefully lift the two black flaps of the camera sensor and lens connectors
- Second picture shows flap up
- The lens body (and sensor) are removed

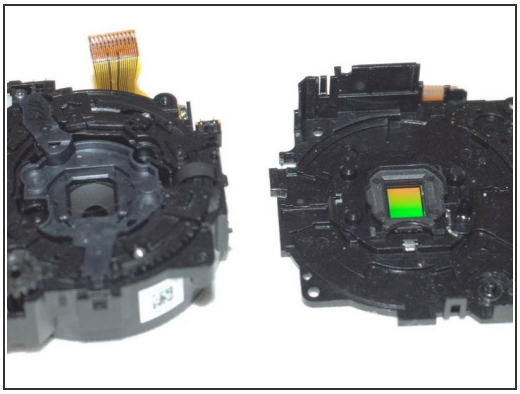
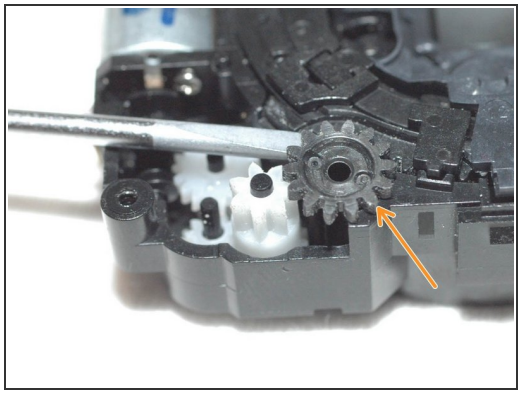
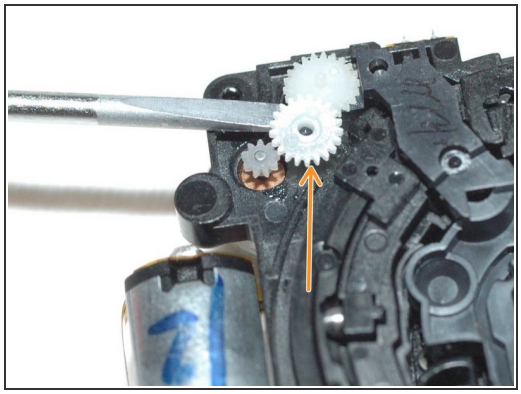
Step 11 — Open lens / sensor assembly





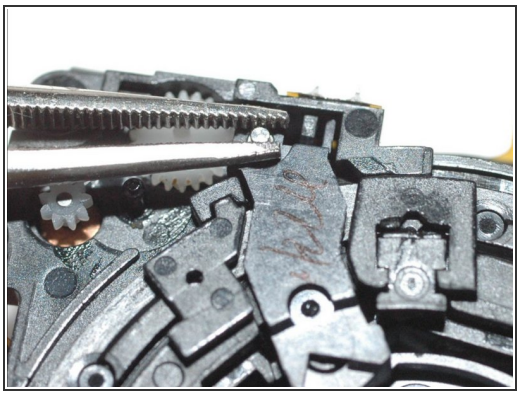
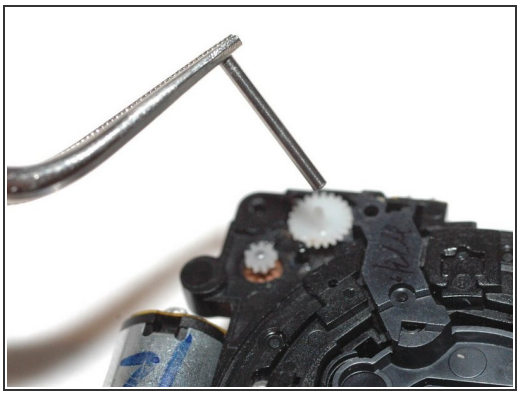
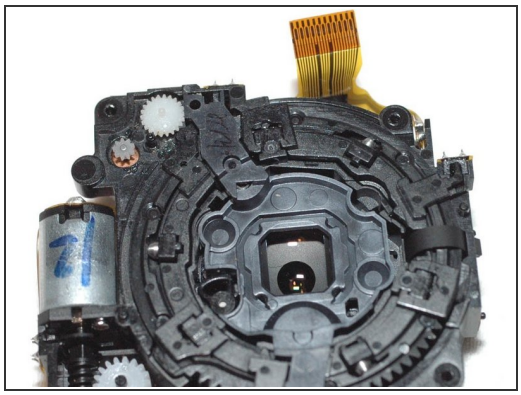
- Remove four phillips screws, one is hidden under a small cover
- Unhook one clip
- **Place the lens facing down before continuing.**
- Carefully pry the box open as shown. The top part is the sensor, so once open do try to keep it clean.

Step 12 — Disassemble lens (1)

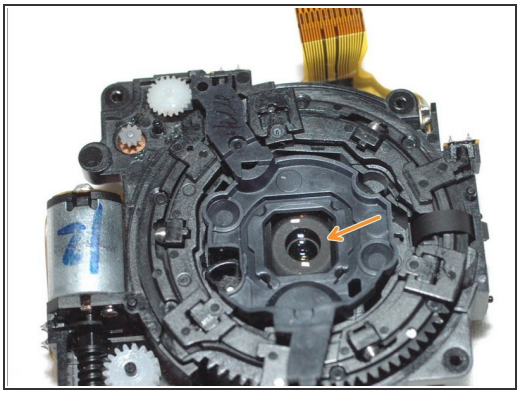
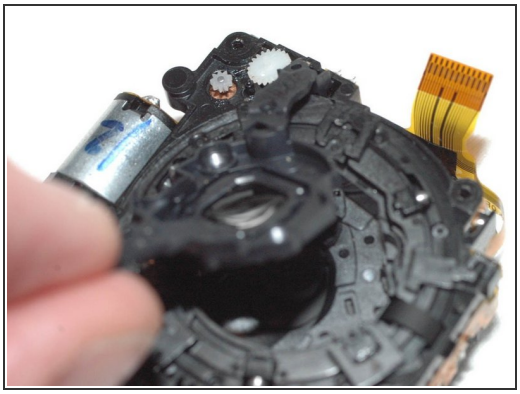
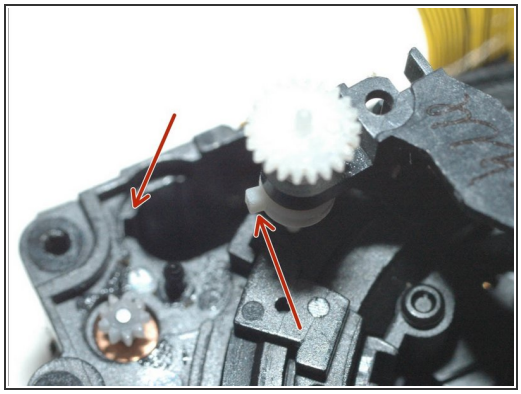
- First a picture of the sensor and the rest
- Now remove two small gears as shown

Step 13 — Disassemble lens (2)

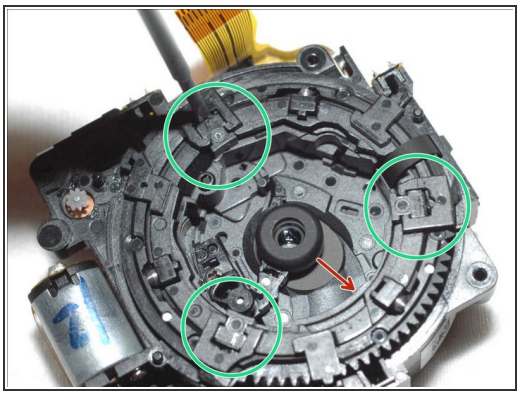
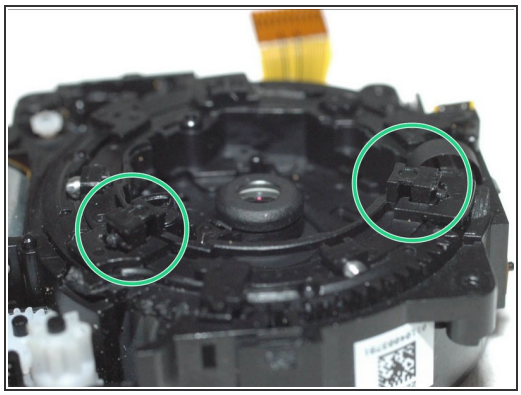
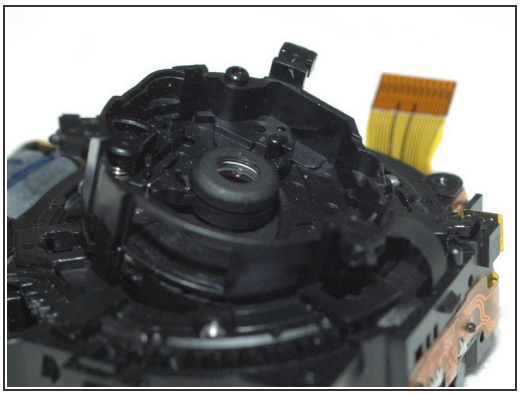
- Remove small axis with a pair of good pliers. The axis needs to be removed as otherwise the zoom lens will not come off easily
- Last picture shows the assembly with zoom lens still on.
- **When lifting the zoom lens, the stabilizer lens will swing up. Remember this upon assembly, as you will have to move it back (down) again**

Step 14 — Disassemble lens (3)

- Here´s the stabilizer lens visible
- Lift the zoom lens as shown
- The small gear has a notch in the housing that the nose must be fitted back in upon assembly

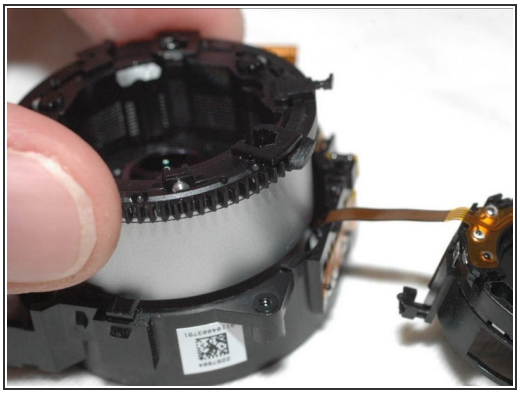
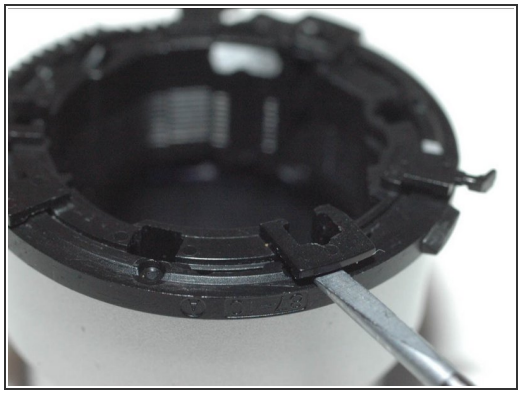
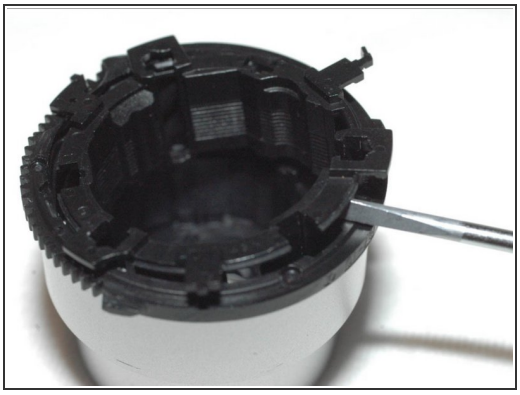
Step 15 — Disassemble lens (4)

- The stabilizer lens (or what I call it, it might be the focus after all) is kept in place with three clips.
- Red arrow shows direction in which stabilizer lens must be moved upon assembly
- Unhook all three and the little noses come out of their holder
- Carefully pull out the inner lens body.

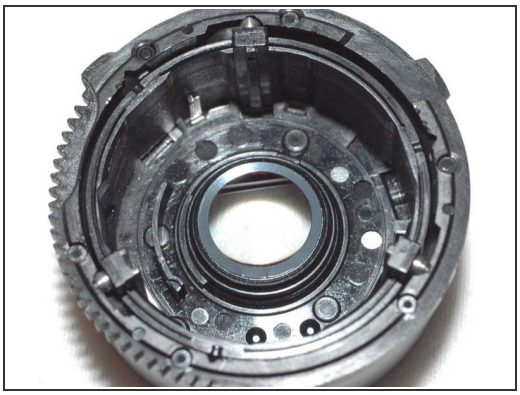
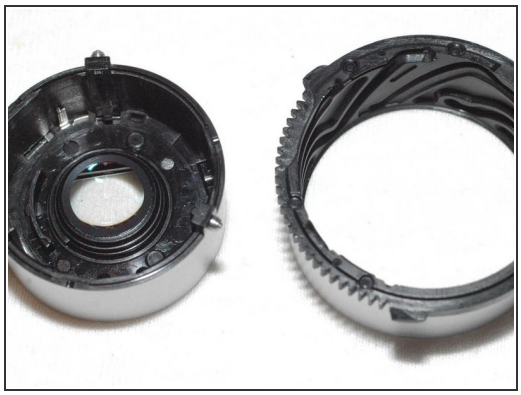
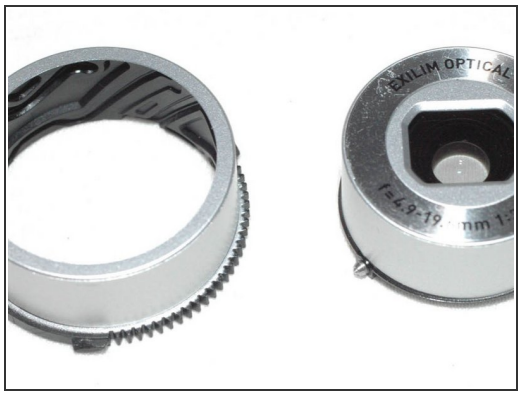
⚠ Do not pull as it is connected with a tiny ribbon wire

Step 16 — Disassemble lens (5)

- Lift the lens barrel out by pushing slightly from the front
- Unhook the inner control ring as shown. The spudger needs almost no force and the ring springs out
- The inner ring can be lifted out. It has three guides with different shape, so fitting back in is possible without a marking

Step 17 — Disassemble lens (6)

- Now the last two parts can be separated.
- Rotate the parts carefully against each other until the three metal noses move out of their guidance rails.

Step 18 — Done

- Here´s a overview of all the parts we ´ve got.
- I really cannot work out how to correctly operate the crop tool...
- Putting back together isn´t much more difficult, and would have worked in my case if not for the charged capacitor and a non-isolated screwdriver, but that´s a different story.

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