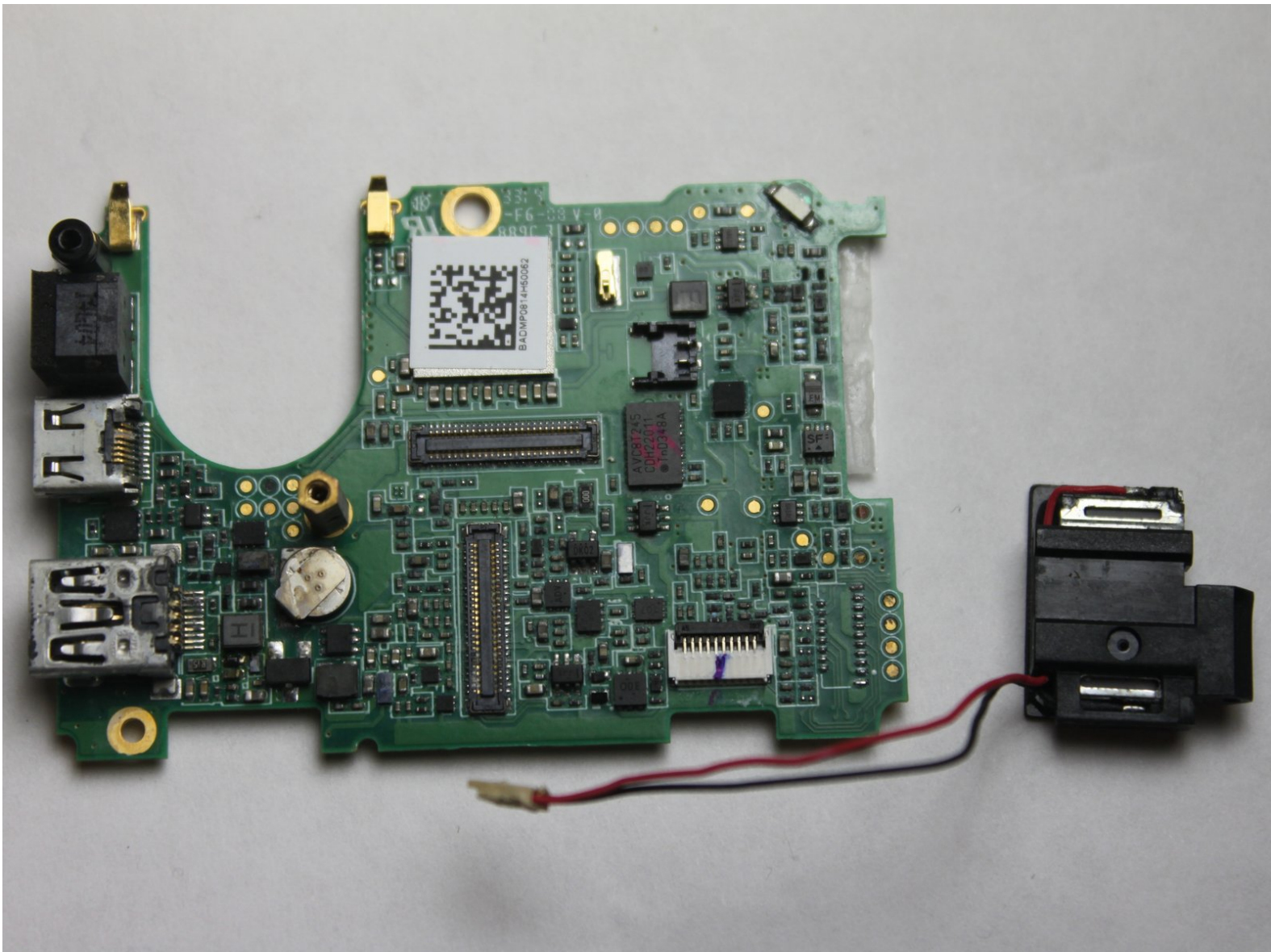




GoPro Hero4 Silver Motherboard Replacement

This guide will show you have to replace your motherboard in your Gopro Hero4 Silver.

Written By: Zack Hoover



INTRODUCTION

In this guide we will be showing you how to replace the motherboard in your GoPro Hero4 Silver. The motherboard is the brain of the camera, controlling all of its functions. Before you begin make sure the battery is removed from the device and that you have the necessary tools to preform this repair.



TOOLS:

- [Tweezers](#) (1)
- [iFixit Opening Tools](#) (1)
- [Magnetic Project Mat](#) (1)
- [Metal Spudger](#) (1)
- [Phillips #000 Screwdriver](#) (1)



PARTS:

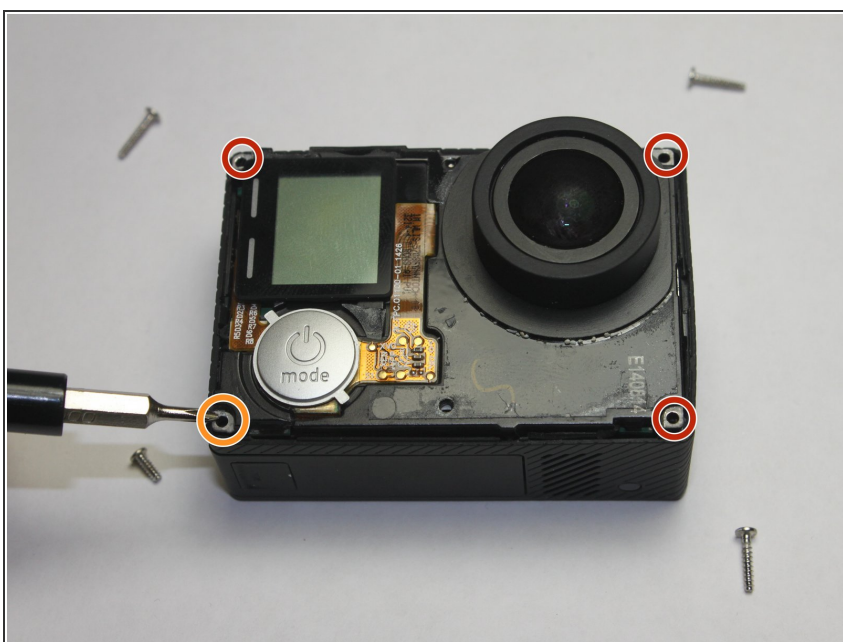
- [GoPro Hero4 Silver Front Panel](#) (1)
- [GoPro Hero4 Silver Image Sensor](#) (1)
- [GoPro Hero4 Silver Expansion Port](#) (1)
- [GoPro Hero4 Silver Speaker](#) (1)
- [GoPro Hero4 Silver Motherboard](#) (1)

Step 1 — Front Panel



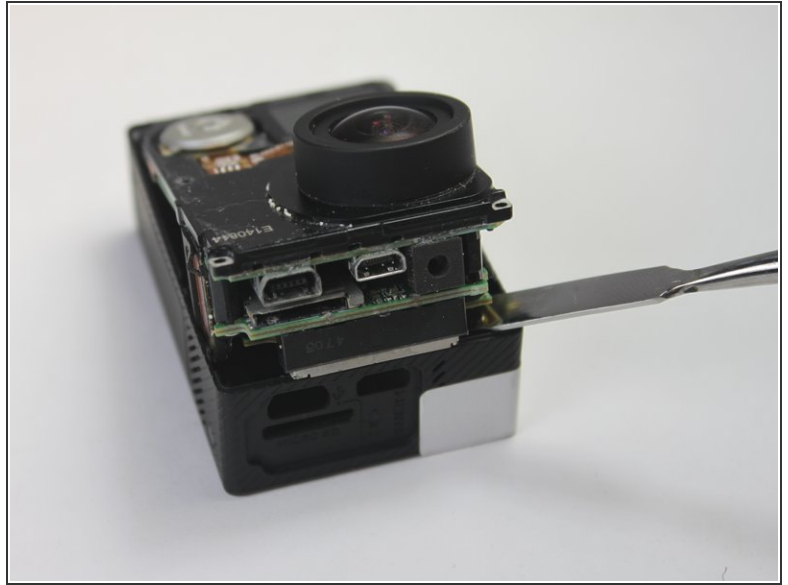
- Start by removing the silver plastic face from the camera using a plastic opening tool. Insert the plastic opening tool into the middle of each edge and lift up the tabs that keep the camera face on.
 - The seven plastic tab locations are marked in red.
- i** Try using the plastic opening tool before switching to the metal spudger. We tried using the plastic opening tool to pry the camera face off, but found that it did not give us enough leverage.
- !** There may be glue holding the camera face on to the housing. Be careful not to flex the camera face too much, or it will crack.

Step 2 — Image Sensor



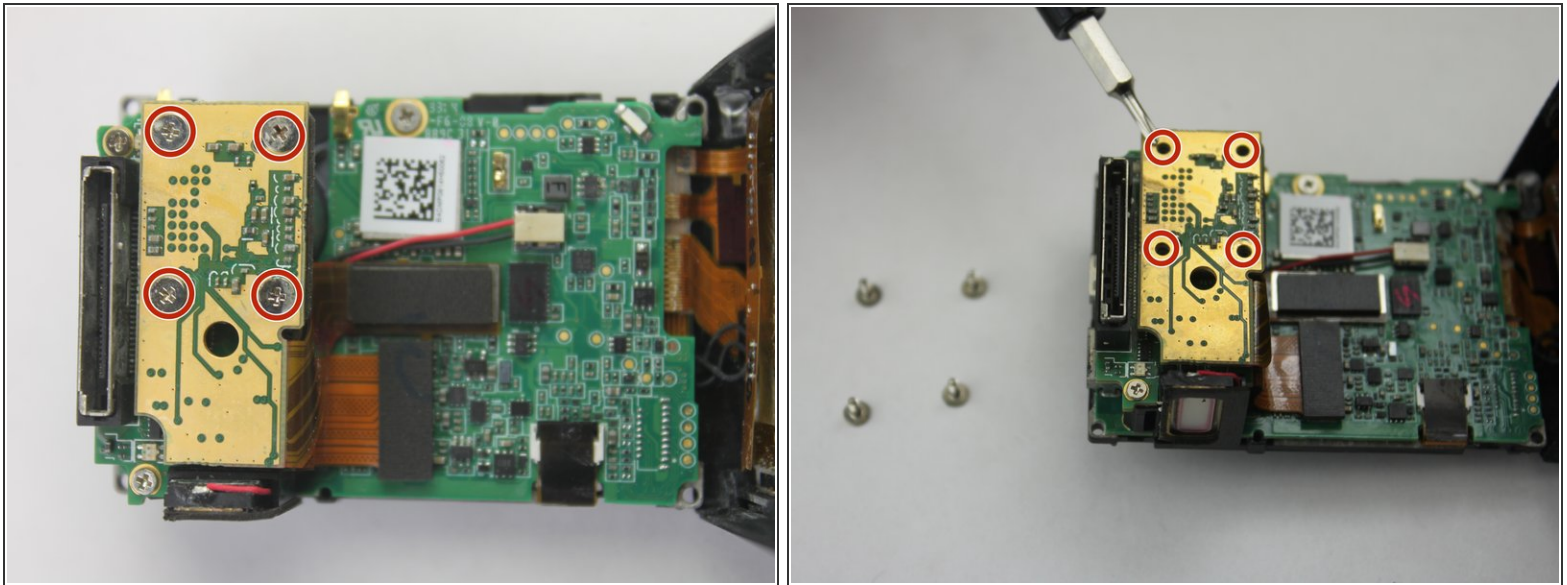
- Remove the three 8 mm Phillips #000 screws on each corner of the camera.
- Remove the single 4 mm Phillips #000 screw on the bottom left corner of the camera.

Step 3



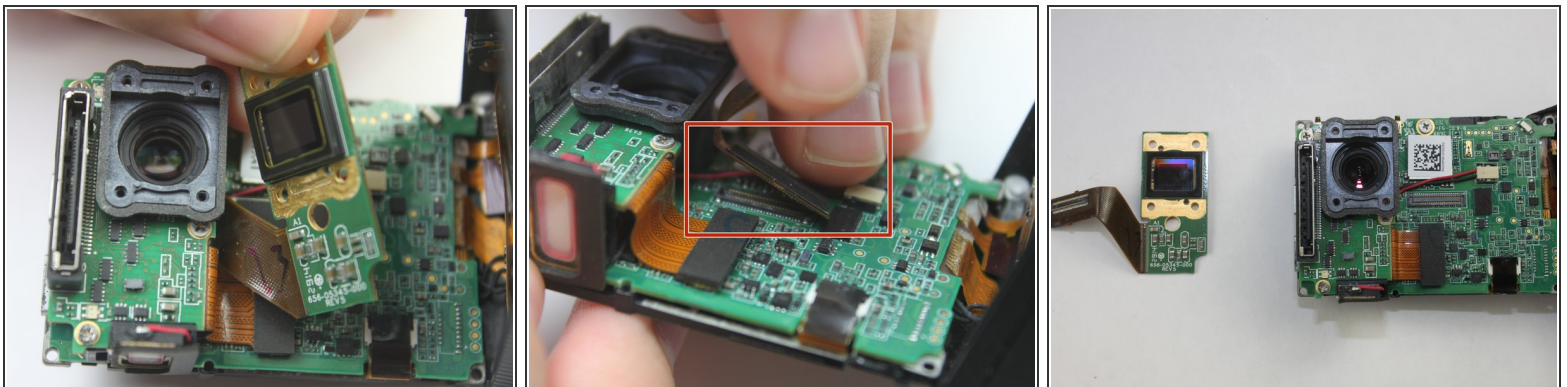
- To remove the motherboard assembly from the camera casing, use the plastic opening tool on the lens side of the camera to pry the motherboard assembly out of the camera housing.
- To avoid breaking the plastic on the lens side of the camera (see photo), pry along the edges near the corners.
- ⓘ Try using the plastic opening tool before switching to the metal spudger. We tried using the plastic opening tool to pry the motherboard assembly open, but found that it did not give us enough leverage.
- ⚠ Do not try to pry near the power button side of the camera. This will break important cables inside.

Step 4



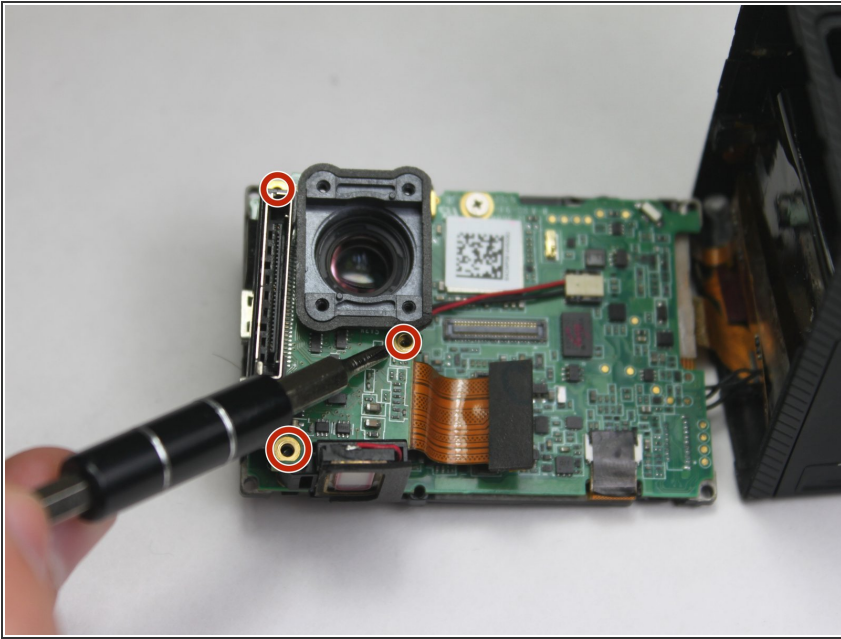
- Remove the four 8 mm Phillips #000 screws securing the camera sensor assembly.

Step 5



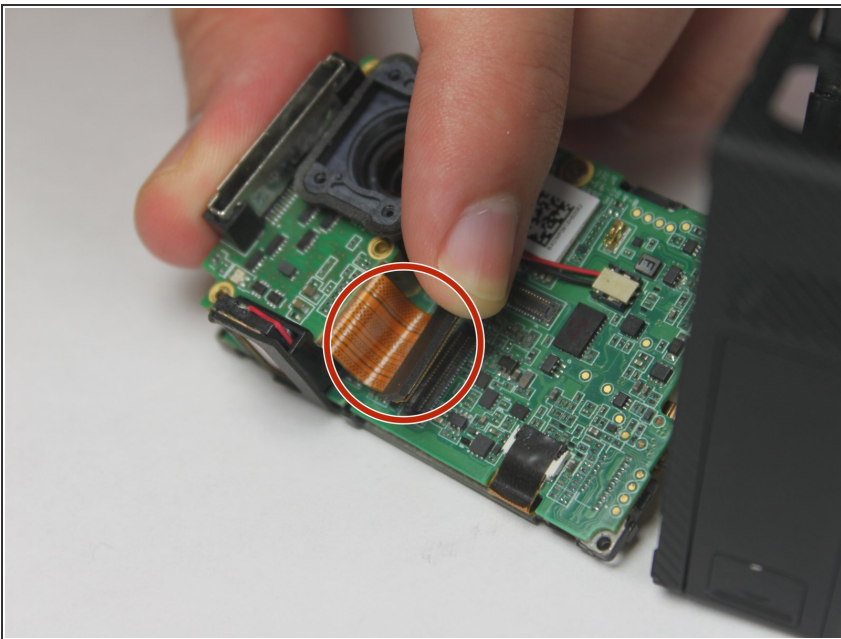
- To remove the sensor assembly, simply peel off the lens towards the attached ribbon cable.
- The sensor has ribbon cables running to the motherboard via a black rectangular connector.
- To remove the sensor, use the spudger to pry up each side, Then, lift the connector straight up from its socket.
- With the old camera sensor assembly removed, you can now replace it with a new sensor.

Step 6 — Hero Port Assembly



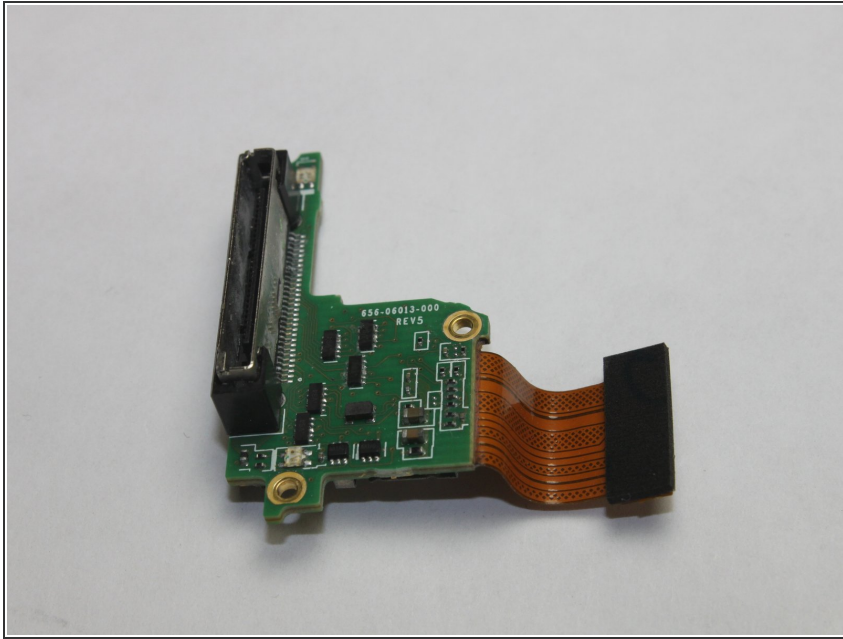
- Remove the three 8 mm Phillips #000 screws securing the Hero port to the motherboard.

Step 7



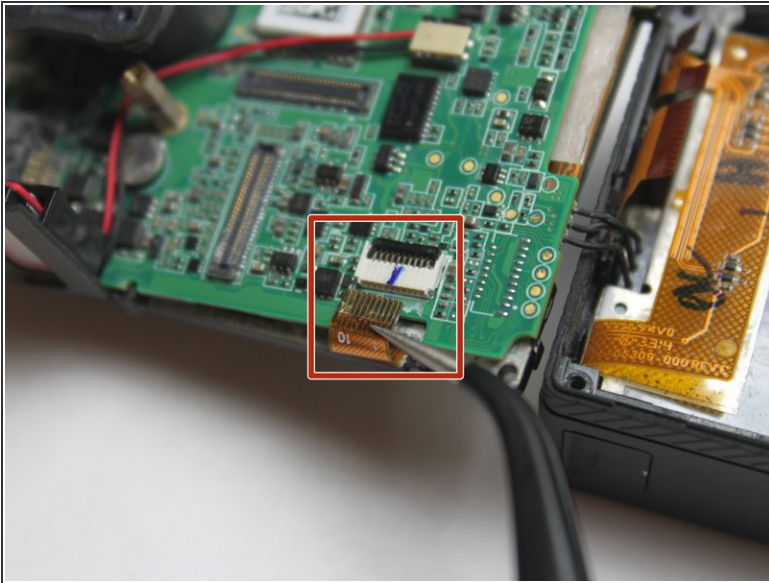
- Locate the copper-colored ribbon cables connecting the Hero Port to the motherboard.
- To remove the connector, use tweezers or a spudger, pry up each side of the connector. Then, lift the connector straight up from it's socket.
- ⓘ When reassembling this piece, do not use too much force to put the black rectangular pins back onto the motherboard. When done right, there will be a 'click'.

Step 8




- To remove the free port, simply slide it out from the left side of the camera. It should come out with slight coercion.
- This piece can be replaced, fixed, or set aside for further tear-down of the GoPro.
- Pictured left is the port when separated from the motherboard.

Step 9 — Speaker Assembly



- Use a pair of tweezers to disconnect the ribbon cable from the [ZIF connector](#) by flipping up the black retaining flap. You should then be able to pull the cable free.
- Once the ribbon cable is disconnected, you can remove the black plastic bracket which holds the camera lens.

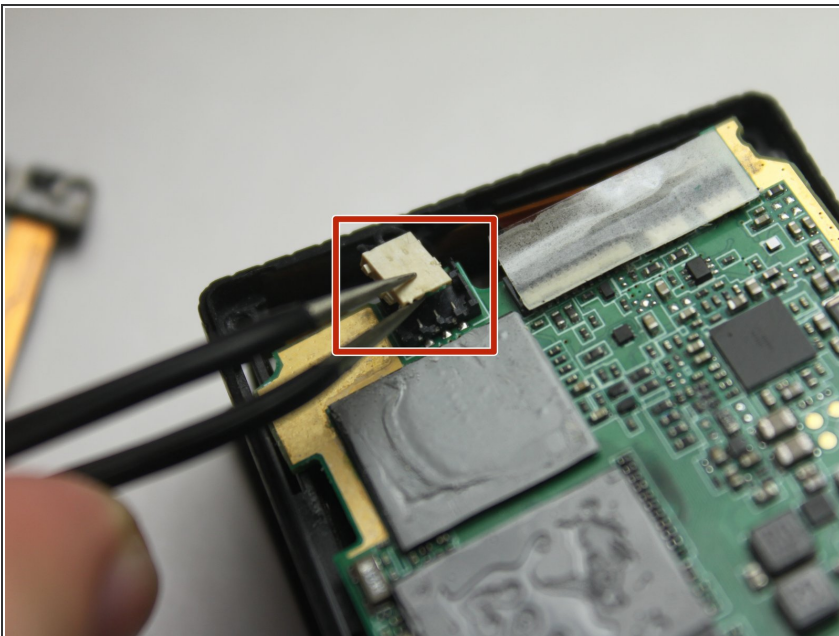
 Be careful removing the ribbon cable. It is very fragile and can tear.

Step 10



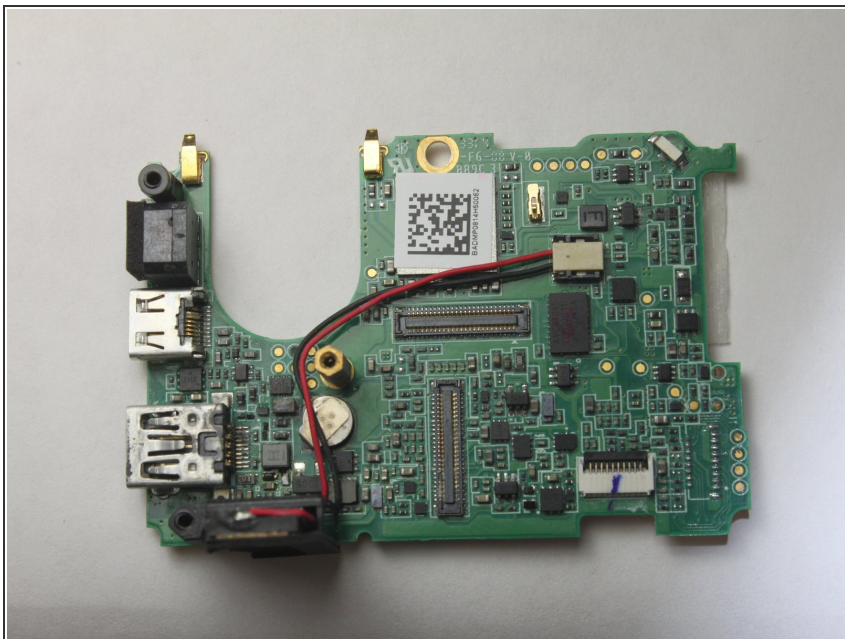
- Once the camera assembly has been removed, you can begin separating the motherboard assembly from the camera housing.

Step 11



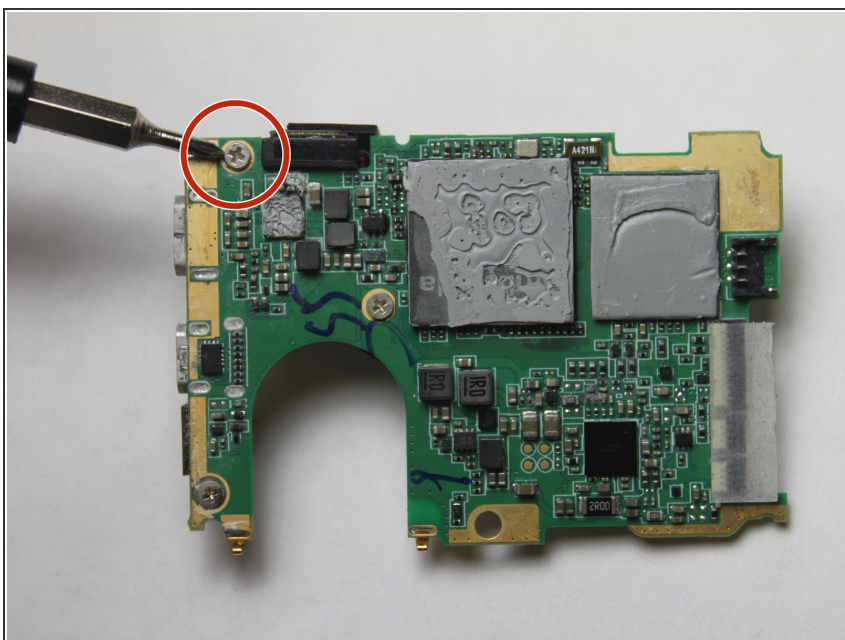
- Flip the motherboard assembly and camera housing over so you can access the back of the motherboard.
- Look for the white connector that has two wires that lead from the mother board to the battery compartment in the camera housing.
- Using the metal tweezers, pull upward on the connector to disconnect the clip.
- ⚠ Be careful when prying on the clip. It is made of plastic, so it is breakable, and requires significant force to disconnect it. Try to apply the force as evenly as possible.

Step 12



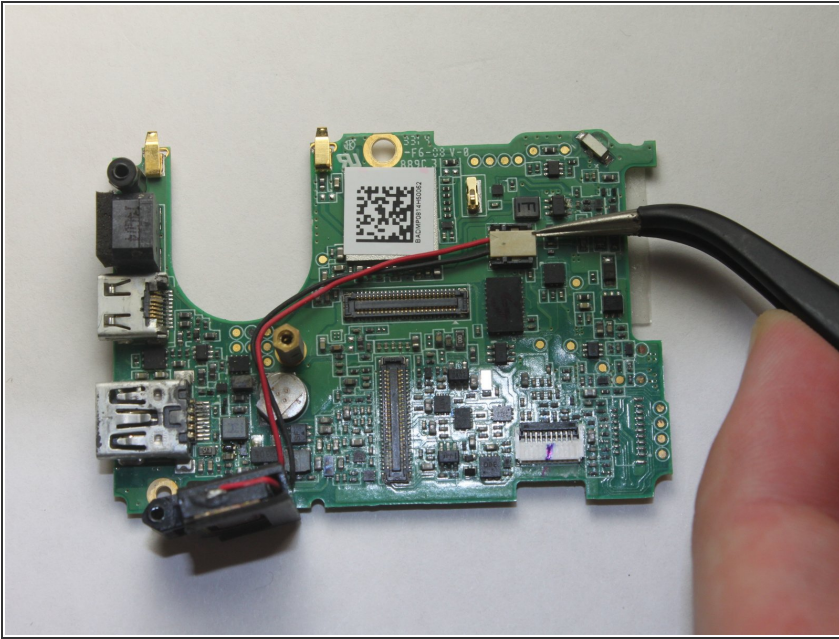
- With the connector removed you can now set the camera housing aside and work on the motherboard.

Step 13



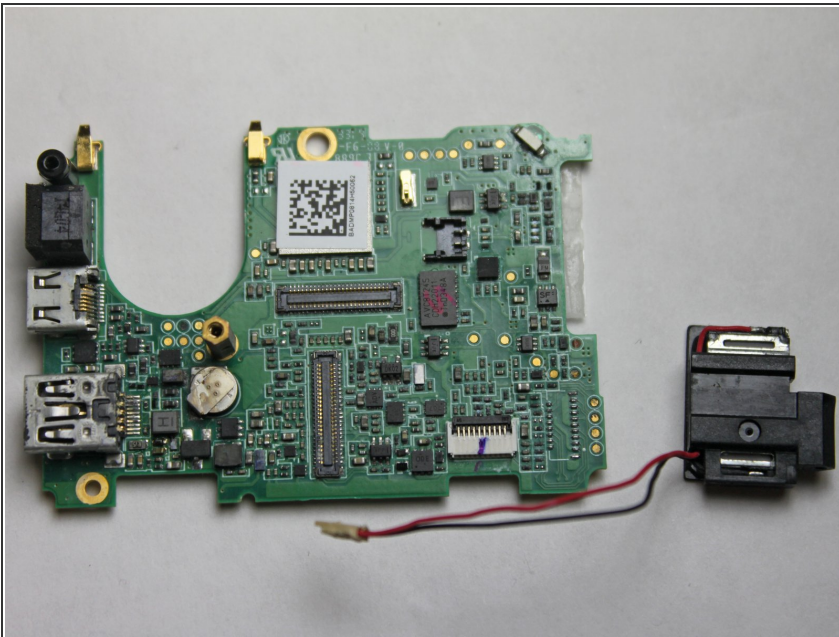
- Flip the motherboard over.
- Remove the single 8 mm Phillips #000 screw.

Step 14



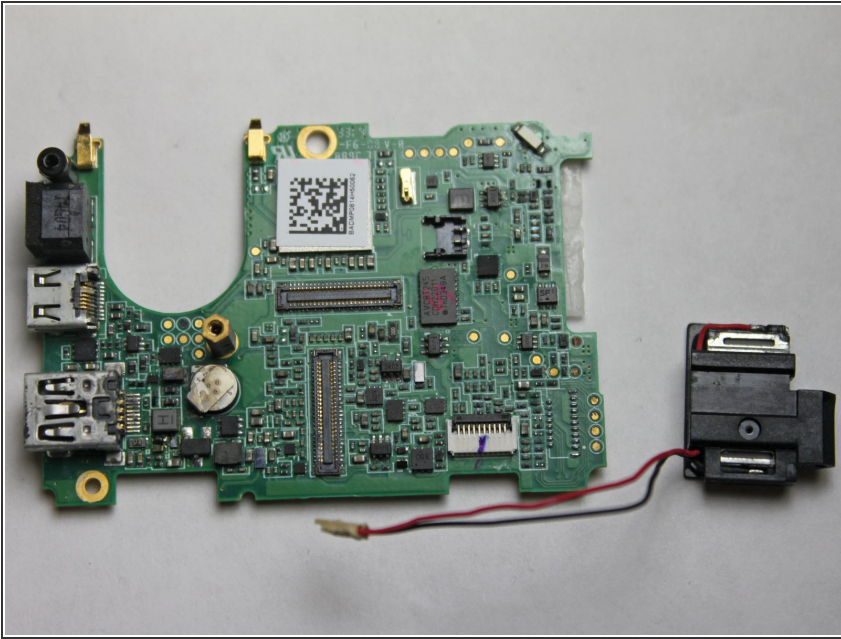
- Flip the motherboard over. The speaker assembly should be loose and only connected by two wires leading to a white connector.
 - Using the metal tweezers, pull upwards to disconnect the connector from its port.
- ⚠ Use caution when prying on the connector. It is made of breakable plastic, and it requires significant force to be removed. try to apply an evenly distributed force when removing the connector.

Step 15



- Once disconnected from the motherboard, the speaker assembly can be removed.

Step 16 — Motherboard



- With the speaker assembly removed, you can now replace the motherboard.

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