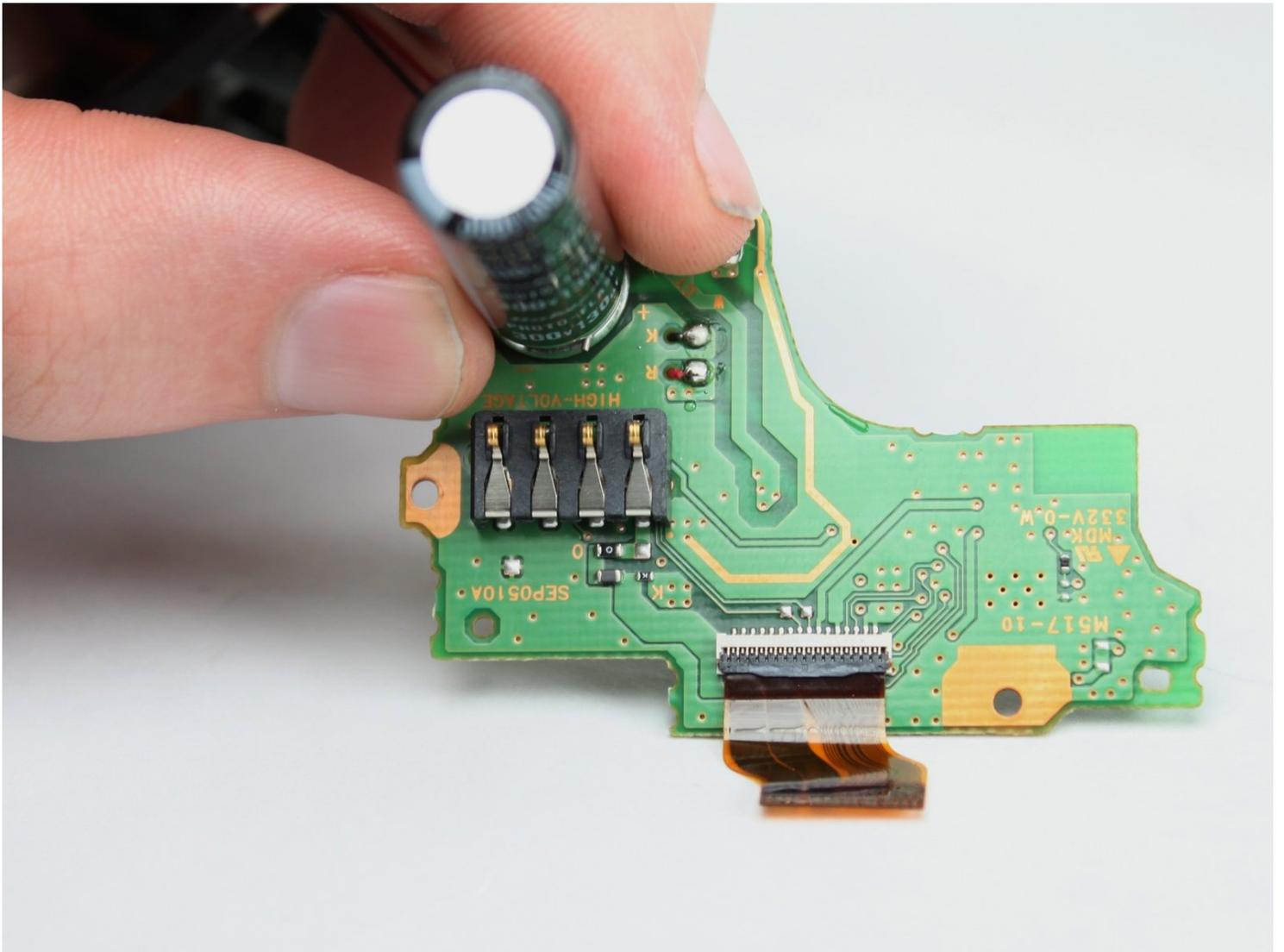




# Panasonic Lumix DMC-G7 Flash Capacitor/Fuse Replacement

If the flash doesn't go off despite the flash...

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# INTRODUCTION

If the flash doesn't go off despite the flash being enabled in the camera settings then it is possible the flash capacitor or fuse has failed. Use the following guide to replace the flash capacitor or the flash fuse.

## TOOLS:

- [iFixit Opening Picks \(Set of 6\)](#) (1)
- [iFixit Opening Tool](#) (1)
- [Phillips #0 Screwdriver](#) (1)
- [Spudger](#) (1)
- [Soldering Iron 60w Hakko 503F](#) (1)
- [Voltmeter](#) (1)
- [Capacitance meter](#) (1)

## Step 1 — Mainboard



- Unlock and open the battery compartment on the bottom of the camera.
- Remove both the battery and SD card.

## Step 2



- Remove the four indicated 3.0mm long black screws from the bottom of the camera and the viewfinder housing using a PH0 Phillips screwdriver.
- ⓘ There are four screws on the bottom of the camera. Only remove the two nearest to the screen.

## Step 3



- Remove the four indicated 6.0mm long black screws using a PH0 Phillips screwdriver.
- ⓘ Three of the screws are located on the sides of the chassis and one is directly underneath the battery compartment lid.

## Step 4

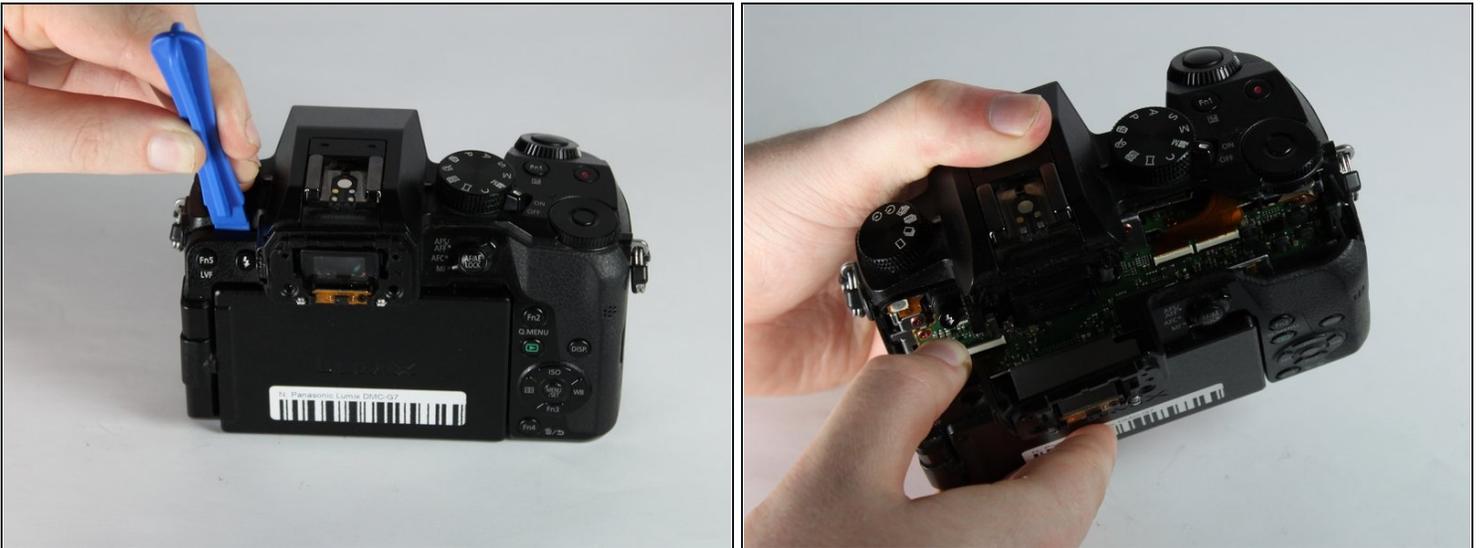


- Remove the viewfinder eye cup by pulling up and out from the bottom to separate the locking clips from the camera.

⚠ Do not flex the eye cup too aggressively as it may lose its shape.

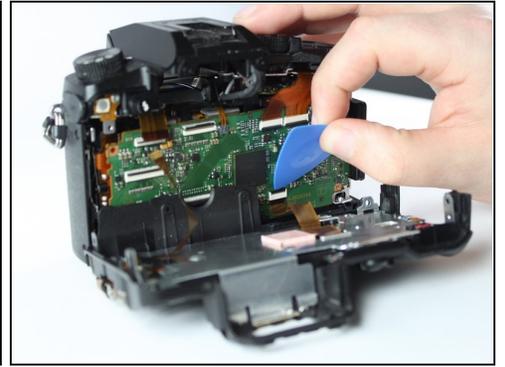
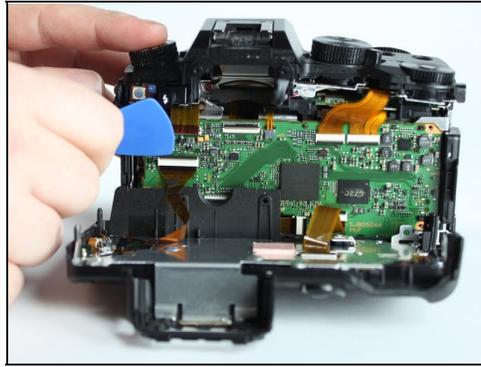
- Remove the two indicated silver 3.5mm long screws adjacent to the viewfinder screen using a PH0 Phillips screwdriver.

## Step 5



- Use an iFixit opening tool (or similarly long and thin object) to insert into the gap between the two camera halves and pry the camera apart from the top.

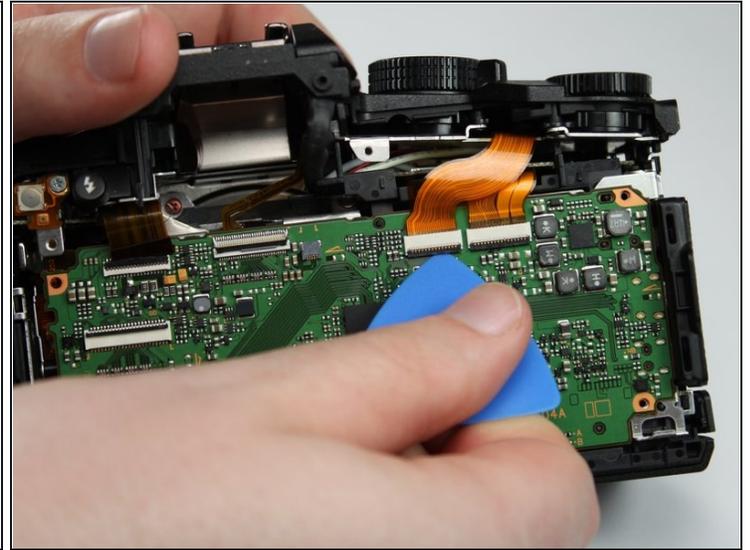
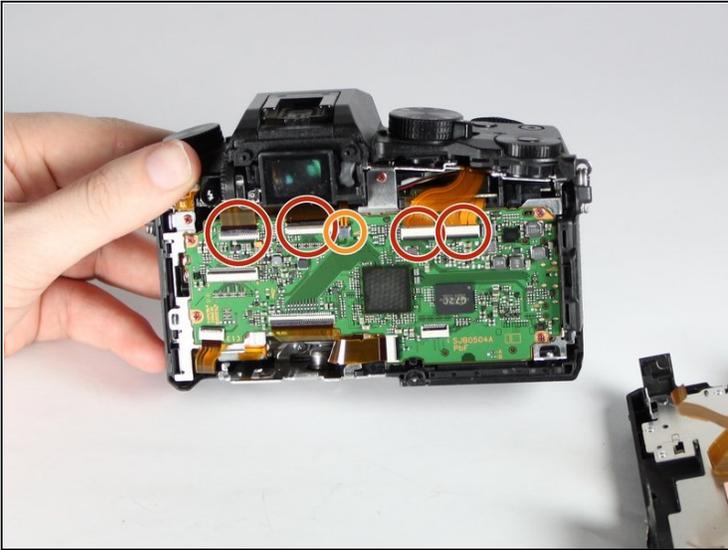
## Step 6



- Remove the two indicated ribbon cables before separating the two halves of the camera.
- Using a flat object, pry open the black tabs above the ribbon cable connectors by gently pulling away from the motherboard.
- ⓘ An opening pick is recommended, but any equally small and flat object will work.

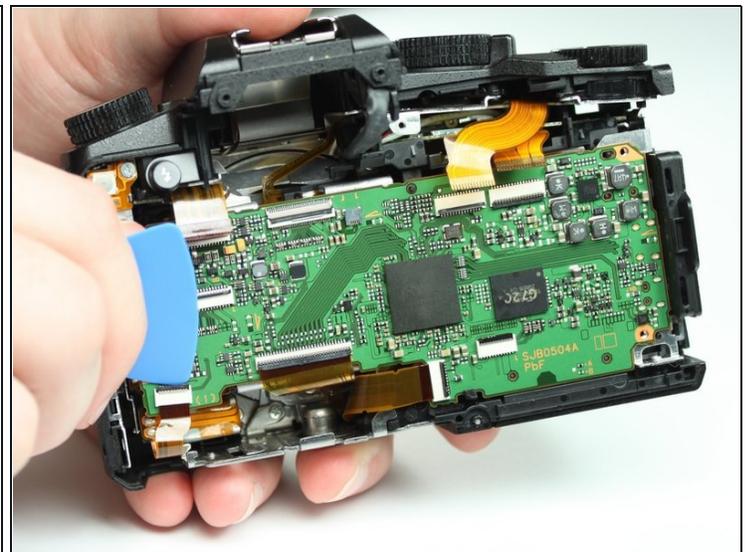
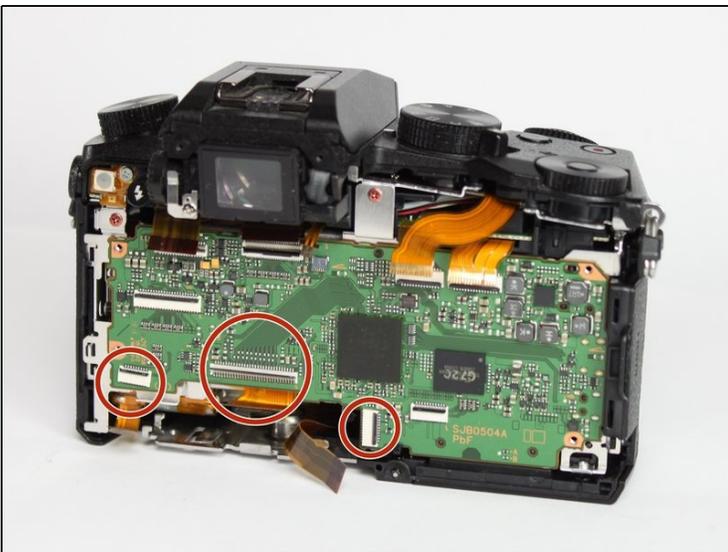
⚠ Ribbon cables are fragile, so put as little stress on them as possible.

## Step 7



- Remove the 4 indicated flex cables from top of mainboard
- Remove the indicated small flex cable from top of mainboard.
- ⓘ The small flex cable does not have a lock: simply pull to disconnect it.

## Step 8



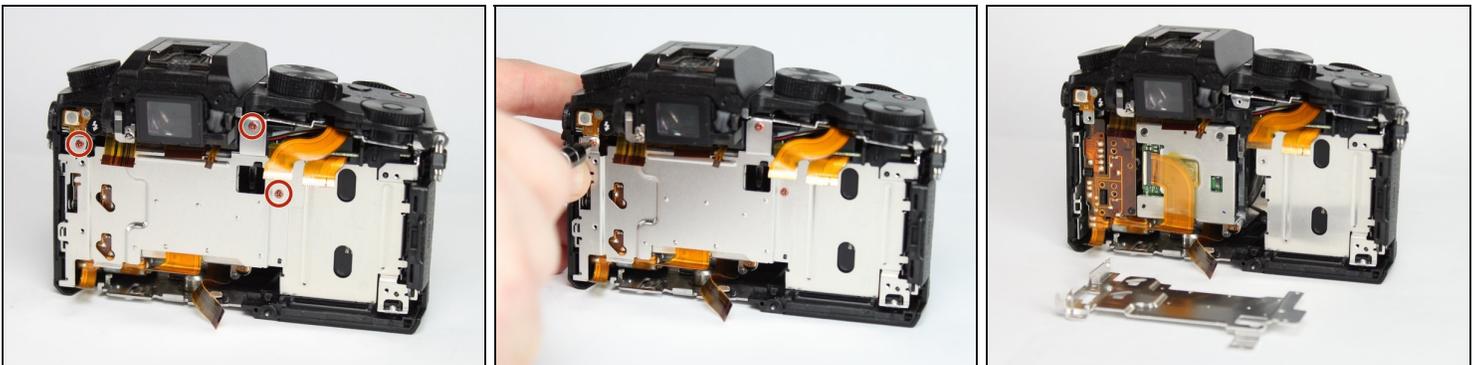
- Remove the 3 indicated flex cables from the bottom of the mainboard.

## Step 9



- Remove the 4 indicated red 3.0mm long screws from the corners of mainboard using a Phillips PH0 screwdriver.
  - With the eyepiece facing away from you, pull up on the main PCB from the left side and then pull it away from the chassis.
  - There is a plastic locking tab on the bottom of the camera that holds the mainboard PCB.
- ⓘ A replacement mainboard can be purchased from AliExpress [here](#)

## Step 10 — Flash Capacitor/Fuse



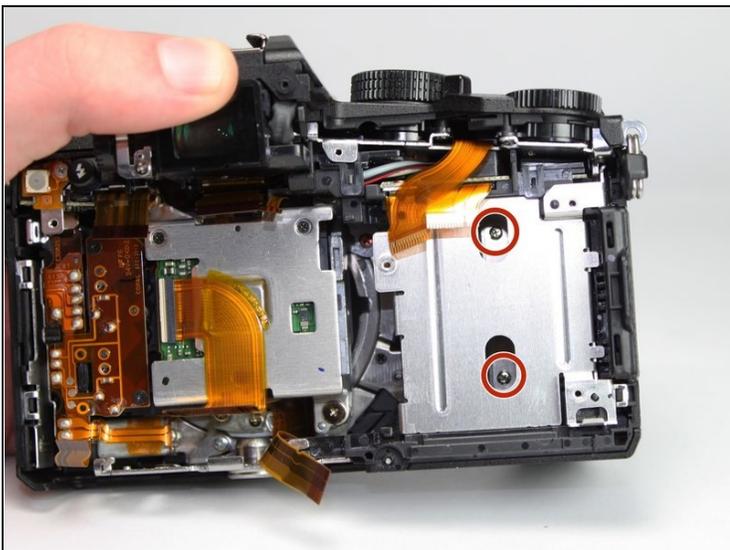
- Use a PH0 Phillips screwdriver to remove the 3 indicated red 3.0mm screws from heat sink shield, then remove the heat sink.

## Step 11



- Use a PH0 Phillips screwdriver to remove the two indicated black 6.0mm long screws from the top of the camera, underneath the flash mechanism.
- Remove the indicated black 4.0mm long screw from the top of the camera

## Step 12



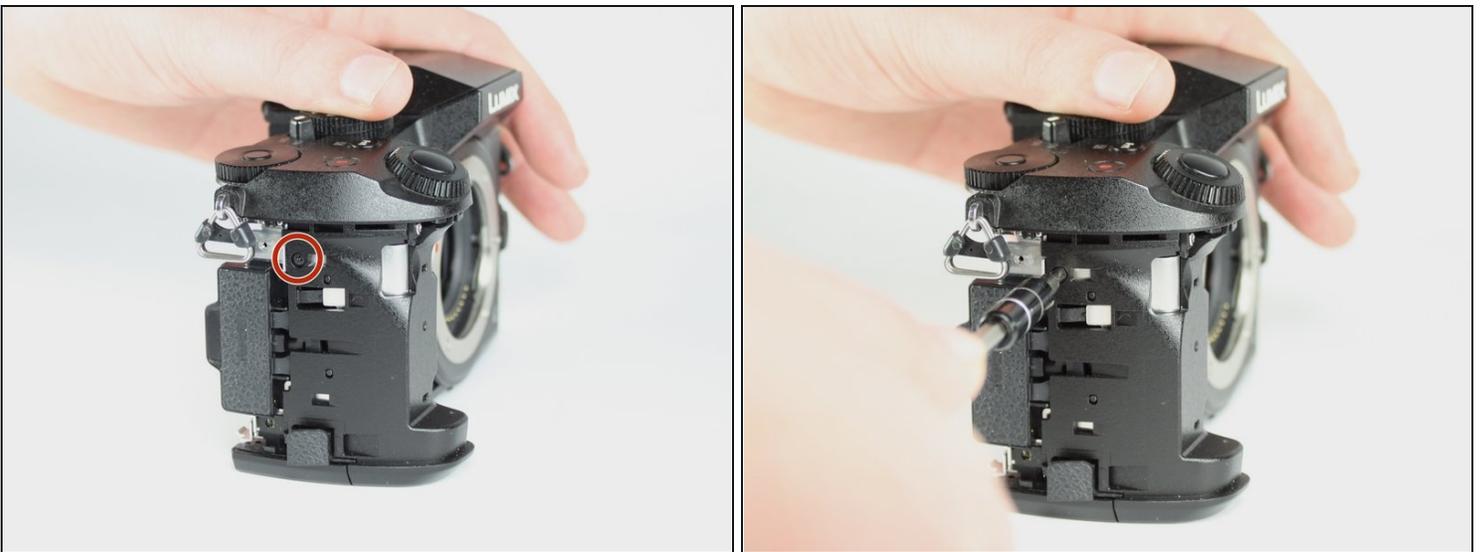
- Remove the three indicated silver 5.0mm long screws from the back of the camera and the right side using a Phillips PH0 screwdriver.
- ⓘ The two screws on the back require a very thin screwdriver as they are only accessible through the holes on the back shield.

## Step 13



- Remove the front grip from the camera by pulling it forward and out.

## Step 14



- Remove the indicated black 4.0mm long screw from the side under the front cover using a Phillips PH0 screwdriver.

## Step 15



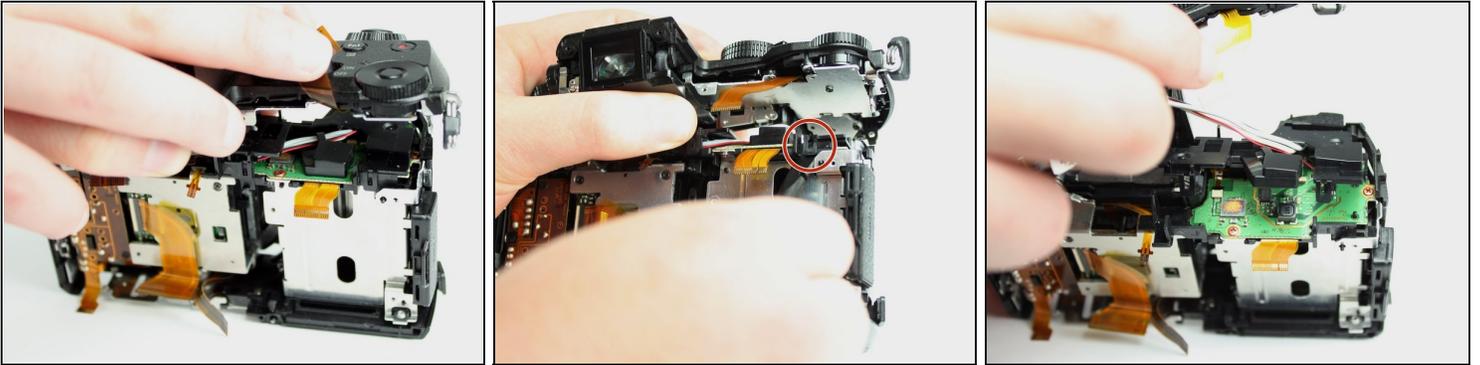
- Remove the indicated silver 5.0mm long screw from under the front cover using a Phillips PH0 screwdriver.

## Step 16



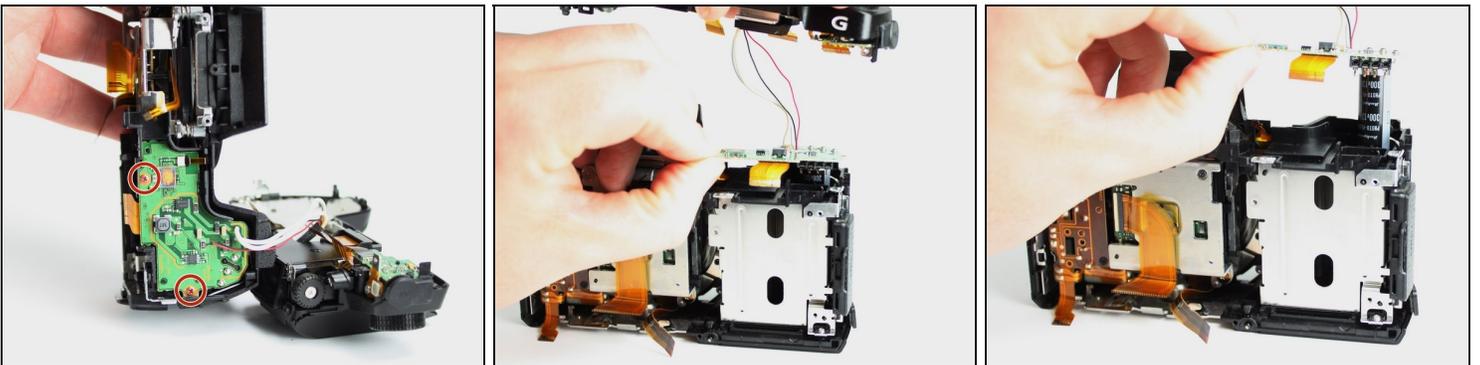
- Lift the top unit away, separating it from the rest of the unit.

## Step 17



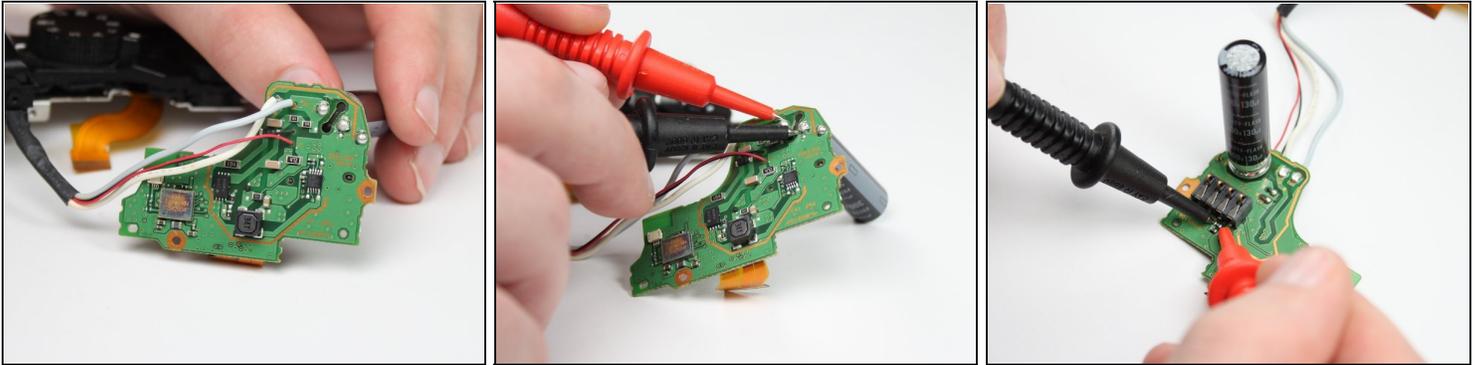
- Pull the top panel away from the rest of the camera to reveal the flash wire and plastic cover.
- Use a spudger (or other small prying tool) to release the locking tab on the plastic cover.
- Pull the flash wire out under the plastic capacitor PCB cover. At the same time lift the cover away.

## Step 18



- Remove the two indicated red 3.0mm long screws using a Phillips PH0 screwdriver.
- Lift away the flash PCB.

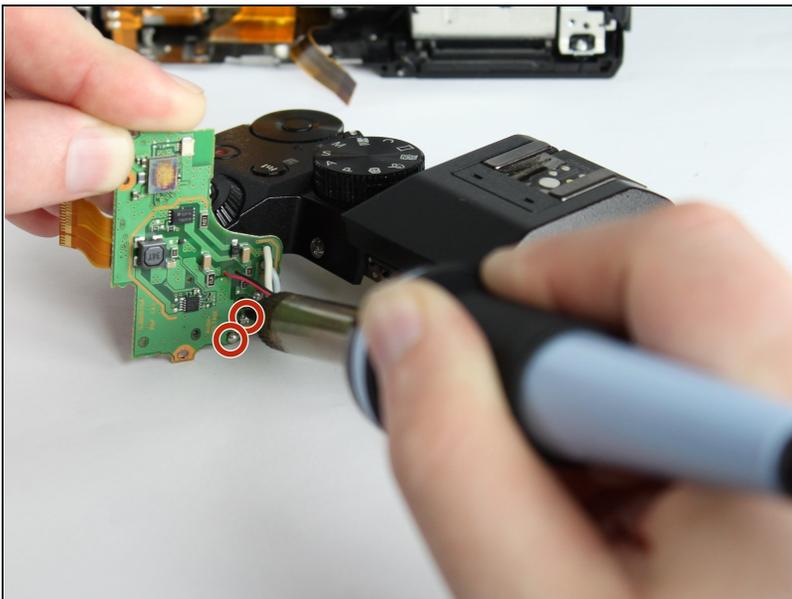
## Step 19



**⚠ Caution:** Be careful not to touch the capacitor wires as you work. If possible, use a [capacitor discharge probe](#) to safely rid the capacitors of dangerous charges.

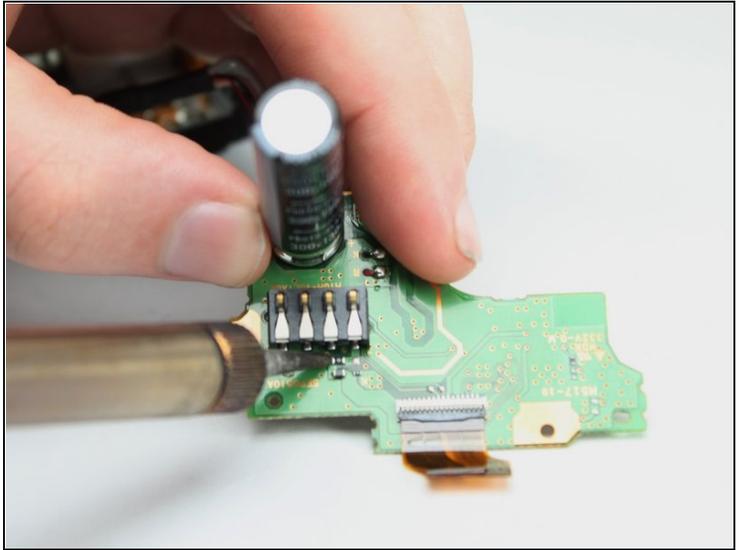
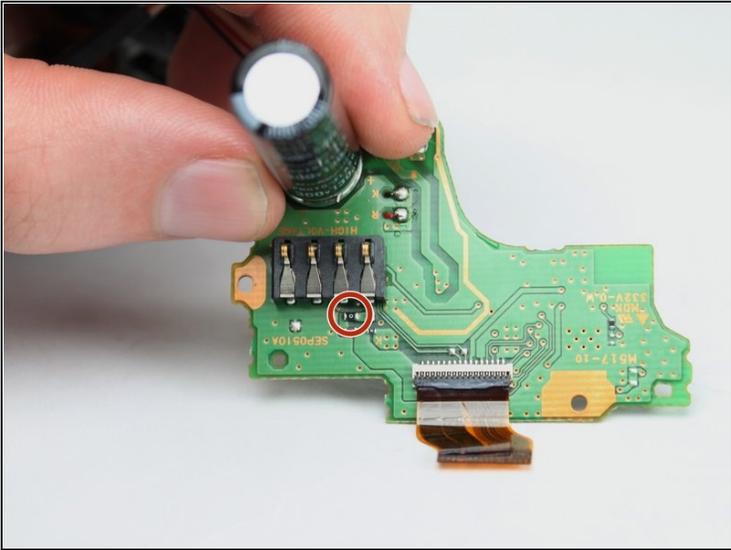
- Determine if the capacitor or the fuse has failed. Using a Capacitance meter measure the capacitor, it should report a value of  $130\mu\text{F}$ .
- If the capacitor value reported is close, then use a voltmeter with continuity testing to probe the fuse. If there is no continuity, then the fuse is broken.
- ⓘ If the capacitor is the failure point, go to step 20 and stop there. Otherwise, if it is the fuse, skip to step 21.

## Step 20



- Heat and remove the indicated solder on the two capacitor contact points.
- ⓘ Solder wick or a [solder pump](#) is recommended for removing solder.
- Pull the flash capacitor away from the PCB.

## Step 21



ⓘ The flash fuse is very close to the capacitor and plastic battery connector. Be careful not to touch them.

- Remove the solder on one side of the fuse.
- Heat the solder on other side and pull the fuse away.

⚠ Use tweezers or a similar tool to remove the fuse.

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