



Panasonic Lumix DMC-G7 Rear Thumbwheel Replacement

This guide shows the steps to remove and replace the rear thumbwheel on a Panasonic Lumix DMC-G7.

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INTRODUCTION

If rotating the rear thumbwheel elicits no or inconsistent response from a powered on camera, it may need replacement. Follow this guide to learn how to remove and replace the rear thumbwheel.

TOOLS:

- [iFixit Opening Picks set of 6](#) (1)
- [iFixit Opening Tools](#) (1)
- [Phillips #0 Screwdriver](#) (1)
- [Phillips #00 Screwdriver](#) (1)
- [Spudger](#) (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



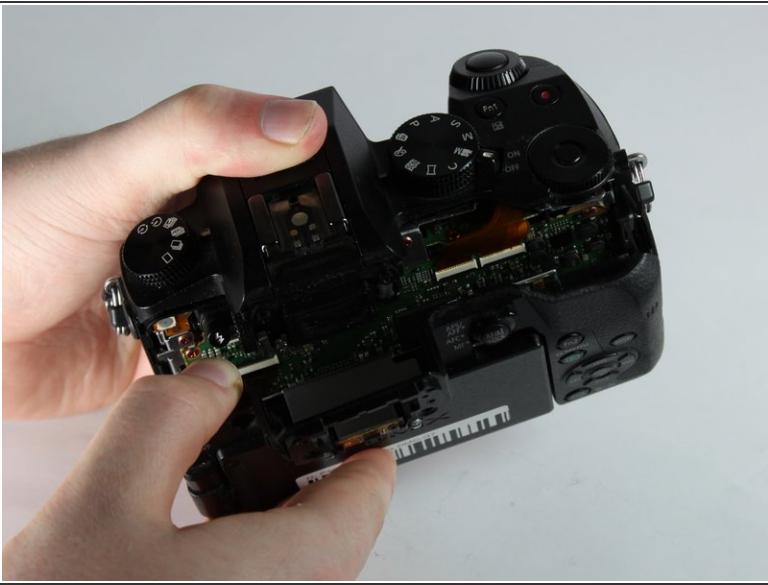
- Remove the four indicated 6.0mm long black screws using a PH0 Phillips screwdriver.
- *(i)* Three of the screws are located on the sides of the chassis and one is directly underneath the battery compartment lid.

Step 4



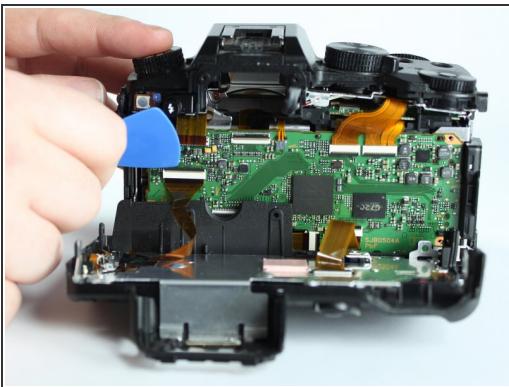
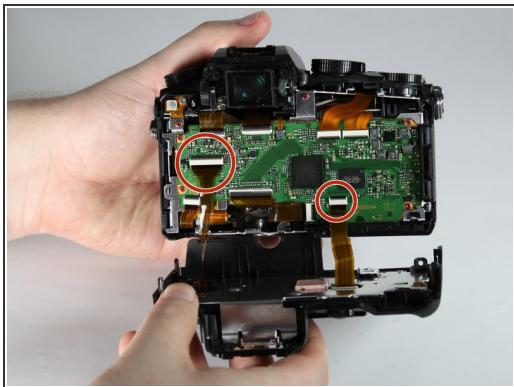
- Remove the viewfinder eye cup by pulling up and out from the bottom to separate the locking clips from the camera.
- ⚠ Do not flex the eye cup too aggressively as it may lose its shape.
- Remove the two indicated silver 3.5mm long screws adjacent to the viewfinder screen using a PH0 Phillips screwdriver.

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

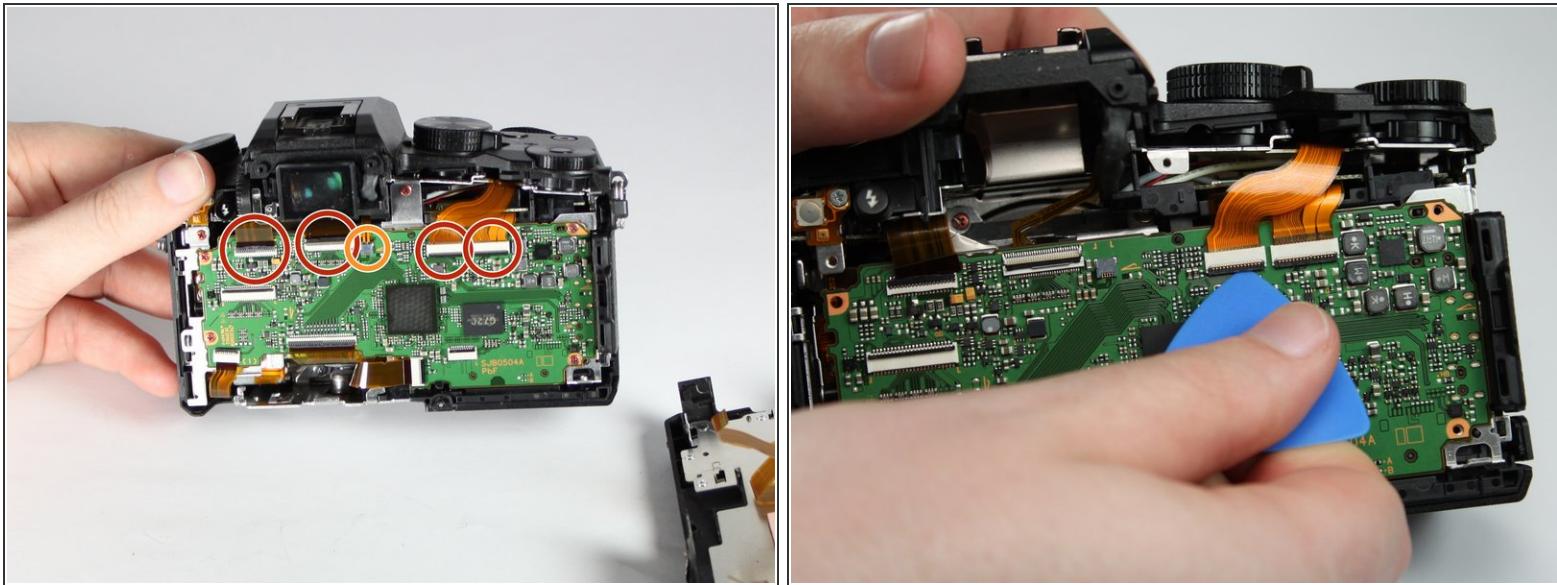


- Remove the two indicated ribbon cables before separating the two halves of the camera.
- Using a flat object, pry open the black tabs above the ribbon cable connectors by gently pulling away from the motherboard.

(i) 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.

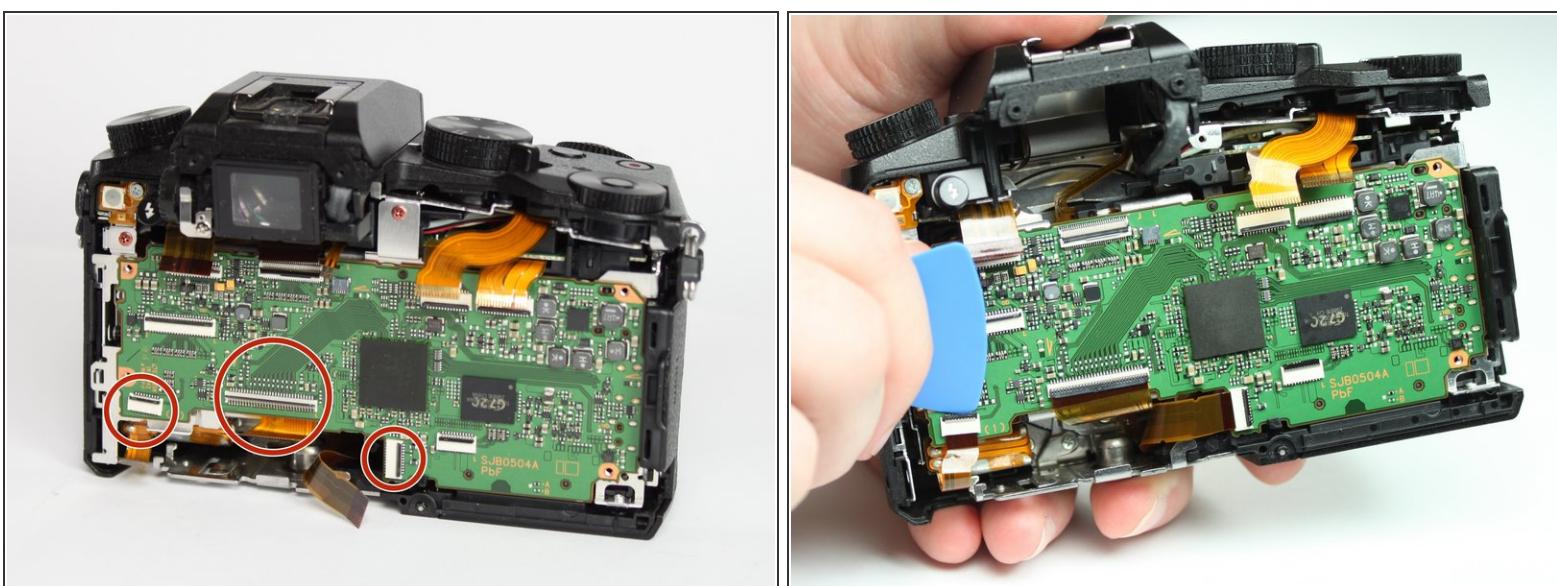
Step 7



- Remove the 4 indicated flex cables from top of mainboard
- Remove the indicated small flex cable from top of mainboard.

(i) 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.

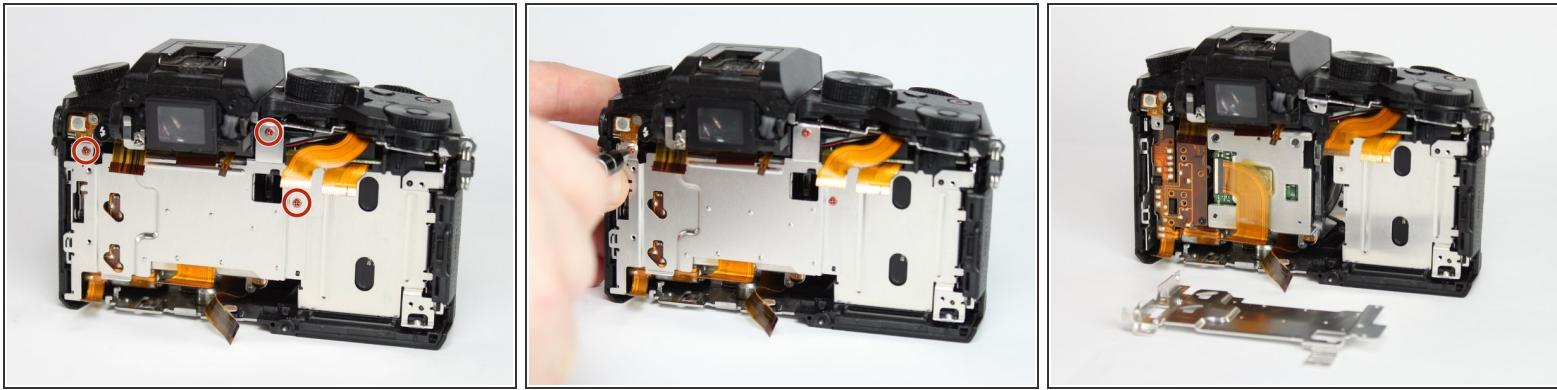
Step 9



- 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.

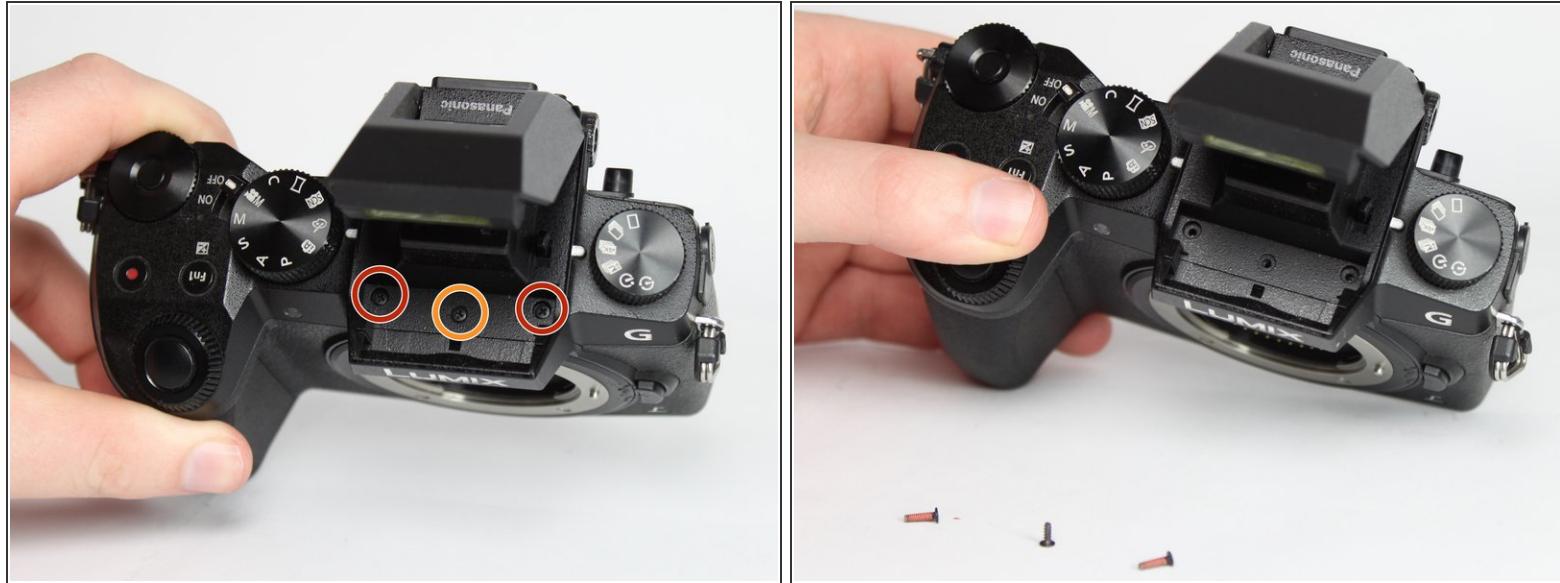
(i) A replacement mainboard can be purchased from AliExpress [here](#)

Step 10 — Rear Thumbwheel



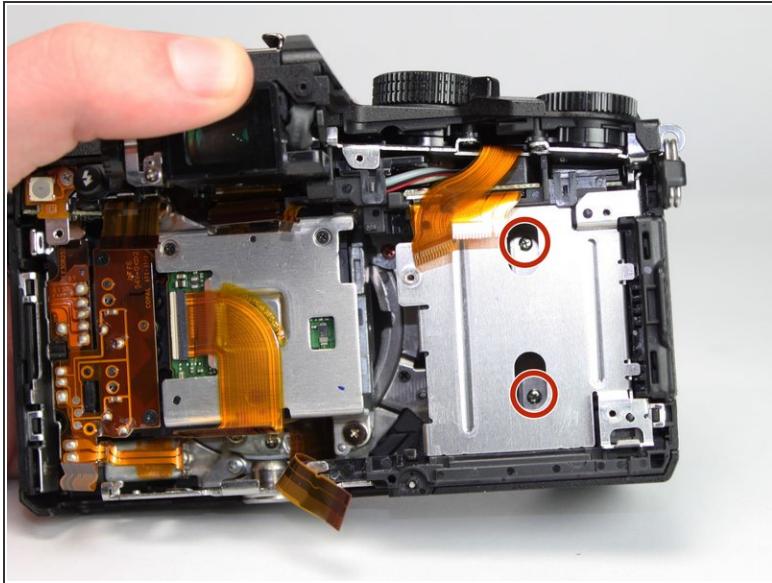
- Remove the three indicated red 3.0mm screws from heat sink shield using a Phillips PH0 screwdriver, then remove the heat sink.

Step 11



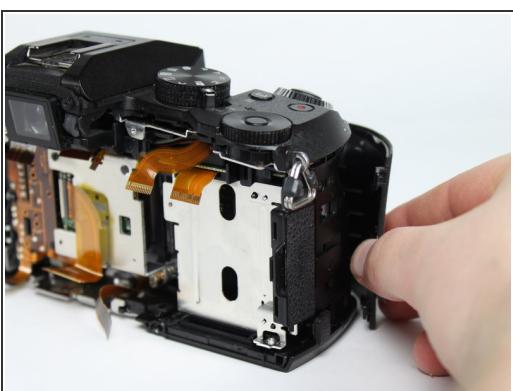
- Use a Phillips PH0 screwdriver to remove the two indicated black 6.0mm long screws from top of camera, underneath the flash mechanism.
- Remove the indicated black 4.0mm long screw from the top of the camera.

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.
- *(i)* 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



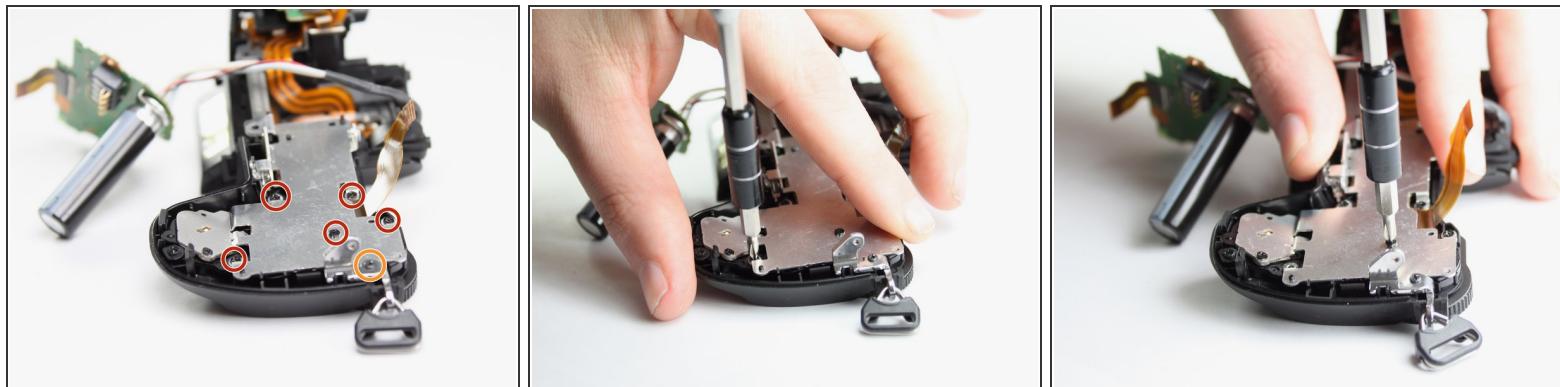
- Remove the indicated silver 5.0mm long screw from under the front cover using a Phillips PH0 screwdriver.

Step 16



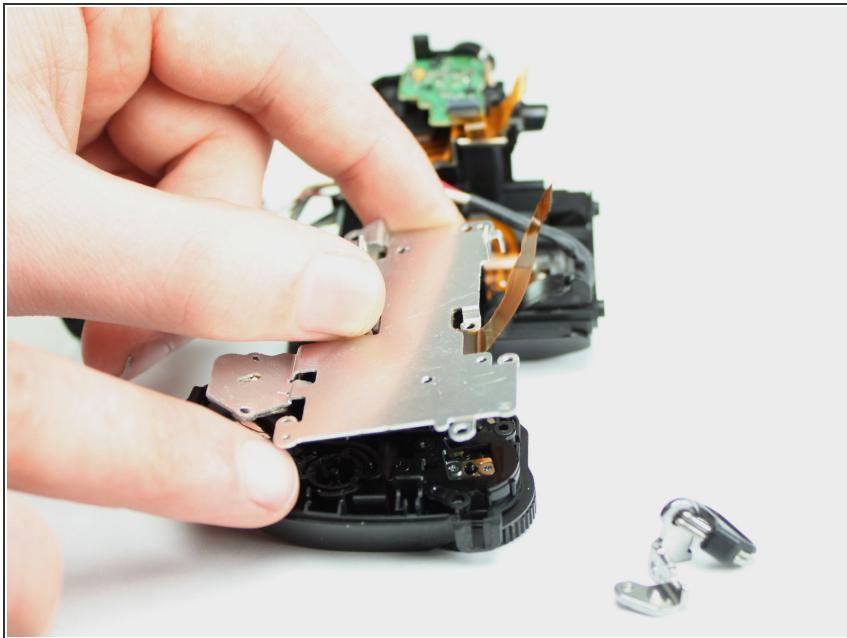
- Lift the top unit away, separating it from the rest of the unit.

Step 17



- Remove the five indicated black 4.0mm long screws from the top plate shield using a Phillips PH0 screwdriver.
- Remove the black 6.0 mm long screw from shoulder strap eyelet.

Step 18



- Lift away the shoulder strap eyelet.
- Lift away the metal shield plate.

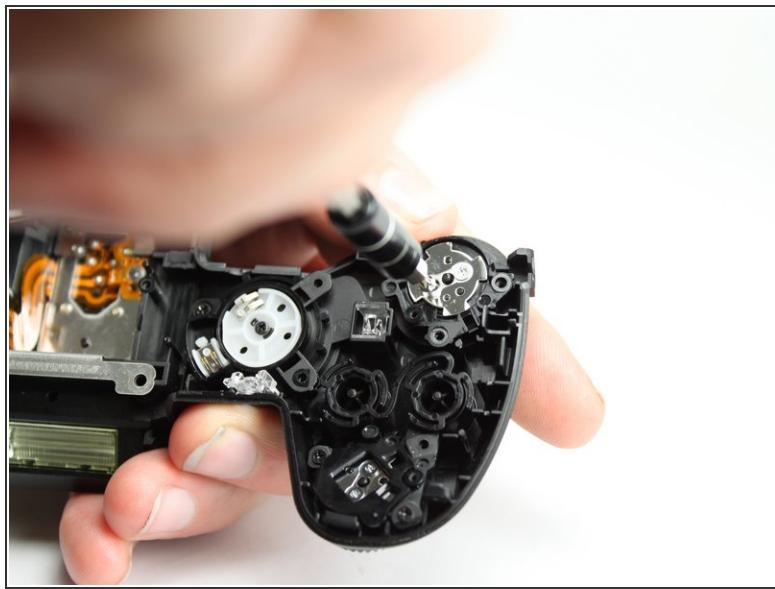
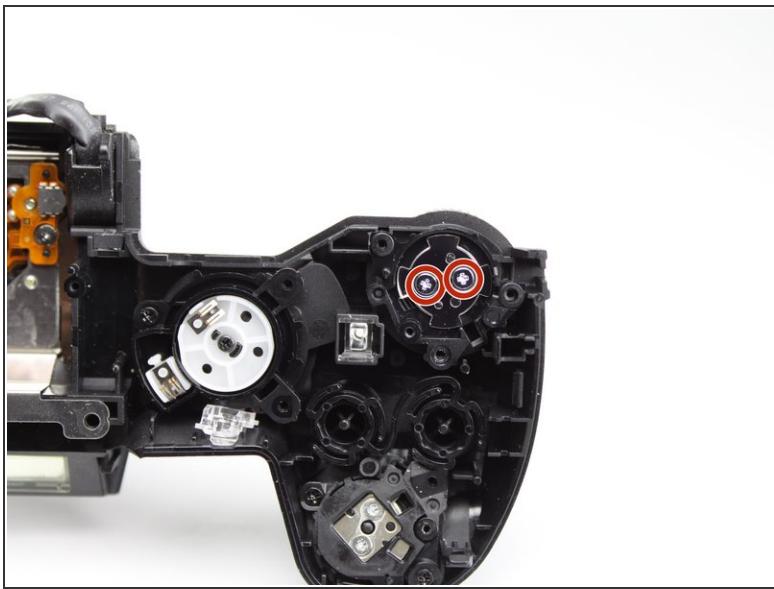
Step 19



- Remove the indicated black 4.0 mm long screw using a Phillips PH0 screwdriver.
- Lift away the circular plastic cover.

⚠ The parts indicated in orange are not retained and can fall out.

Step 20



- Remove the two silver 4.0 mm long screws using a Phillips PH00 screwdriver.
- Hold the wheel in place while unscrewing to prevent the wheel from spinning and hampering the removal of the screw.
- ⚠ Once the screws are removed, the metal lower and plastic upper are no longer retained. Pressure should be applied to prevent the pieces from falling apart.

Step 21



- Rotate the upper cover so that the plastic section of the rear thumbwheel is upright.
- Carefully remove the plastic upper cover.

⚠ There is a small ball bearing, indicated in red, underneath the plastic cover. The bearing is spring loaded and can be lost easily if the cover is not upright.

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