



Samsung Galaxy M51 Battery Replacement

Use this guide to replace a worn-out or dead...

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INTRODUCTION

Use this guide to replace a worn-out or dead battery in your Galaxy M51.

If your battery is swollen, [take appropriate precautions](#).

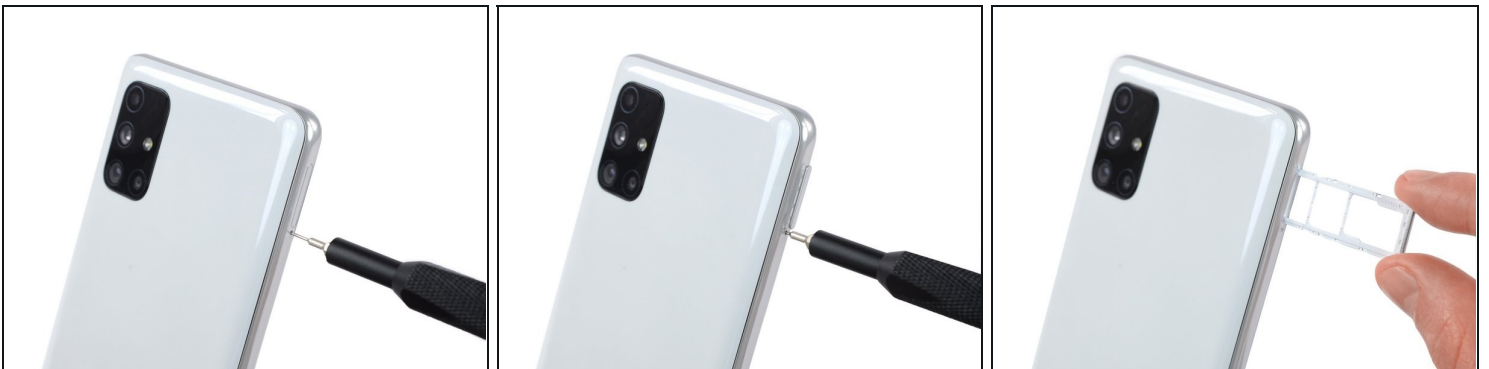
For your safety, discharge your battery below 25% before disassembling your phone. This reduces the risk of a dangerous thermal event if the battery is accidentally damaged during the repair.


You'll need replacement adhesive to reattach components when reassembling the device.

TOOLS:

[SIM Card Eject Tool](#) (1)
[iOpener](#) (1)
[iFixit Opening Picks \(Set of 6\)](#) (1)
[Suction Handle](#) (1)
[Spudger](#) (1)
[Plastic Cards](#) (1)
[Phillips #00 Screwdriver](#) (1)

Step 1 — How to remove the SIM Tray



- Insert a SIM eject tool into the small hole on the SIM card tray on the left edge of the phone.
 - Press firmly to eject the tray.
 - Remove the SIM card tray.
-  When reinserting the cards, make sure to properly orient them in the tray.

Step 2 — Heat an iOpener



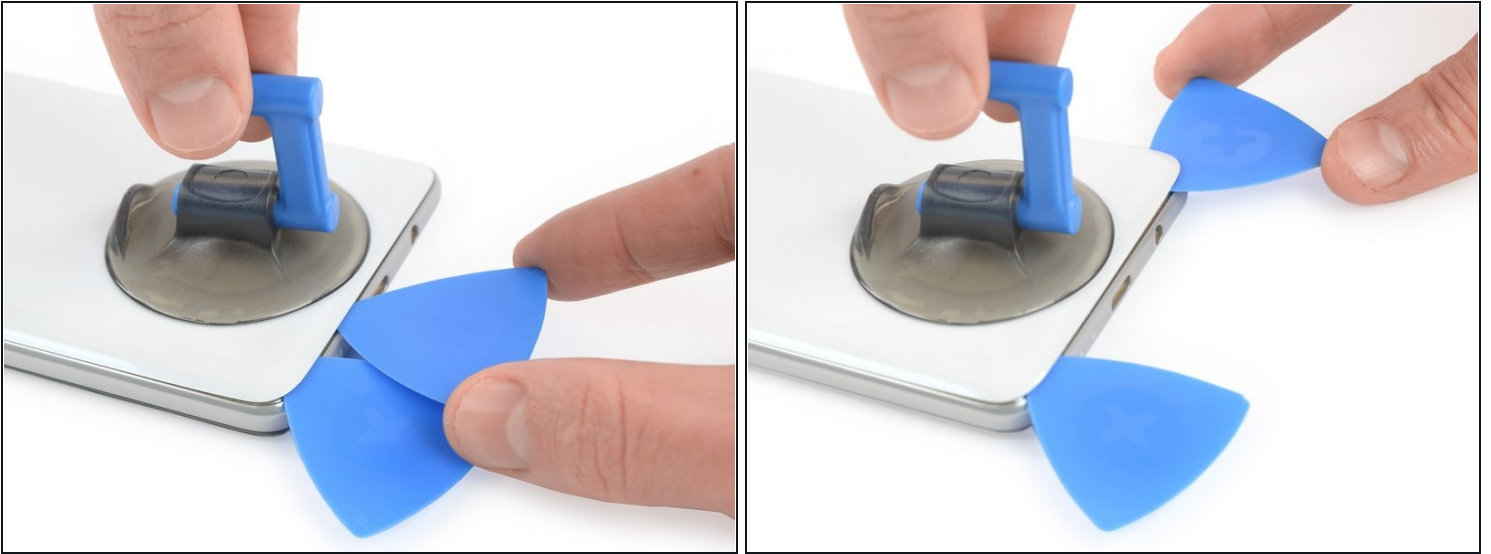
- ⓘ Before beginning this procedure, completely power off your phone.
- [Prepare an iOpener](#) and apply it to the back cover for at least two minutes.
- ⓘ A hair dryer, heat gun, or hot plate may also be used, but be careful not to overheat the phone—the display and internal battery are both susceptible to heat damage.

Step 3 — Create an opening gap



- Apply a suction handle to the back cover, as close to the USB-C port as possible.
- Lift the back cover's bottom edge with your suction handle, opening a slight gap between the back cover and the frame.
- Insert the tip of an opening pick in the gap you created.
- Slide the opening pick to the bottom left corner and leave it there.

Step 4 — Slice through the adhesive



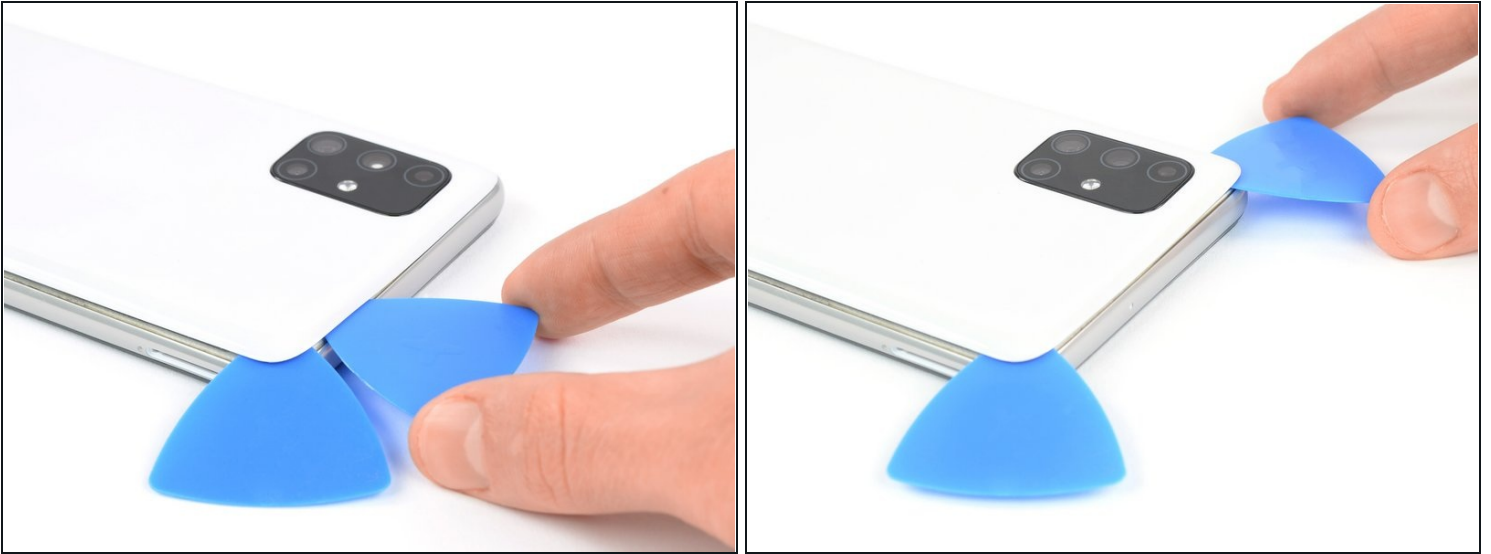
- Insert a second opening pick and slide it from the bottom left corner to the bottom right corner to cut the adhesive.
- Leave the opening picks in place to prevent the adhesive from resealing.

Step 5



- Insert a third opening pick under the bottom right corner of the back cover.
 - ① If you have any trouble, apply more heat to further soften the adhesive. Follow the iOpener instructions to avoid overheating.
- Slide it along the right edge of the phone to the top right corner to cut the adhesive.
- Leave the opening pick in the top right corner to prevent the adhesive from resealing.

Step 6



- Insert a fourth opening pick under the top right corner.
- Slide it along the top edge to the left corner to cut the adhesive.
- Leave the opening pick in its place to prevent the adhesive from resealing.

Step 7



- Insert a fifth opening pick on the top left corner and slide it along the edge to cut the remaining adhesive.

Step 8 — Remove the back cover



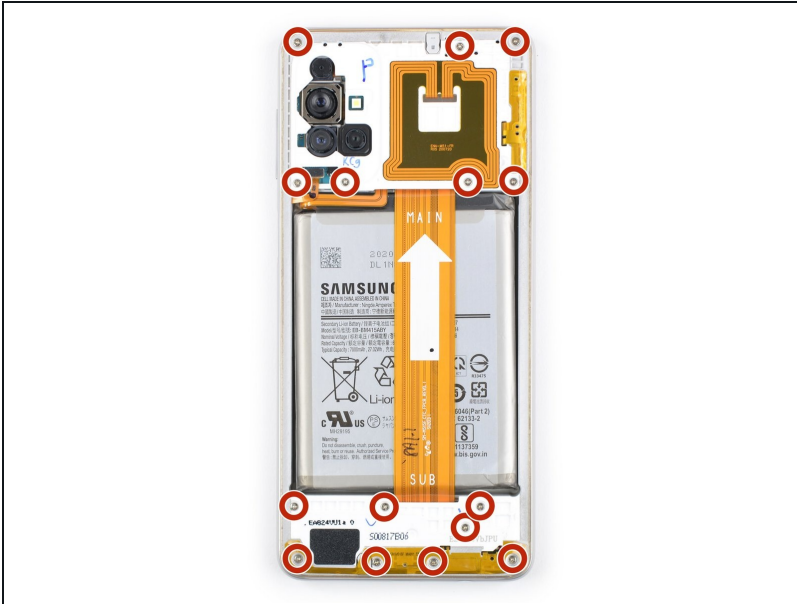
- Remove the back cover.

Step 9 — Disconnect the fingerprint sensor



- Use the pointy end of a spudger to disconnect the fingerprint sensor from the motherboard.

Step 10 — Remove the screws



- Remove the 15 4.0 mm-long Phillips #00 screws securing the midframe.

Step 11 — Release the plastic clips



ⓘ The midframe is held by plastic clips.

- Insert an opening pick between midframe and display near the usb-c port.
- Slide the opening pick to bottom right corner to release the plastic clips.

Step 12



- Slide the opening pick along the right edge to release the plastic clips.

Step 13



- Slide the opening pick along the top edge to release the midframe from the plastic clips.

Step 14



- Slide the opening pick along the left edge to release the plastic clips.

Step 15 — Remove the midframe



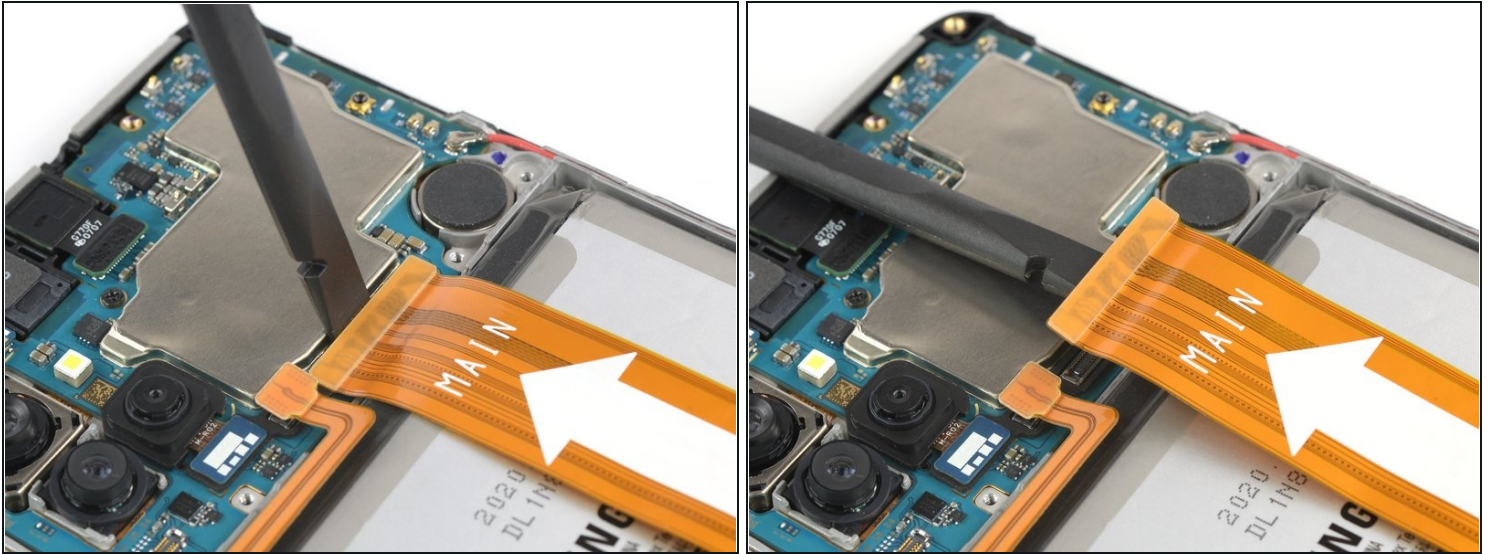
- Remove the midframe.

Step 16 — Battery Disconnect



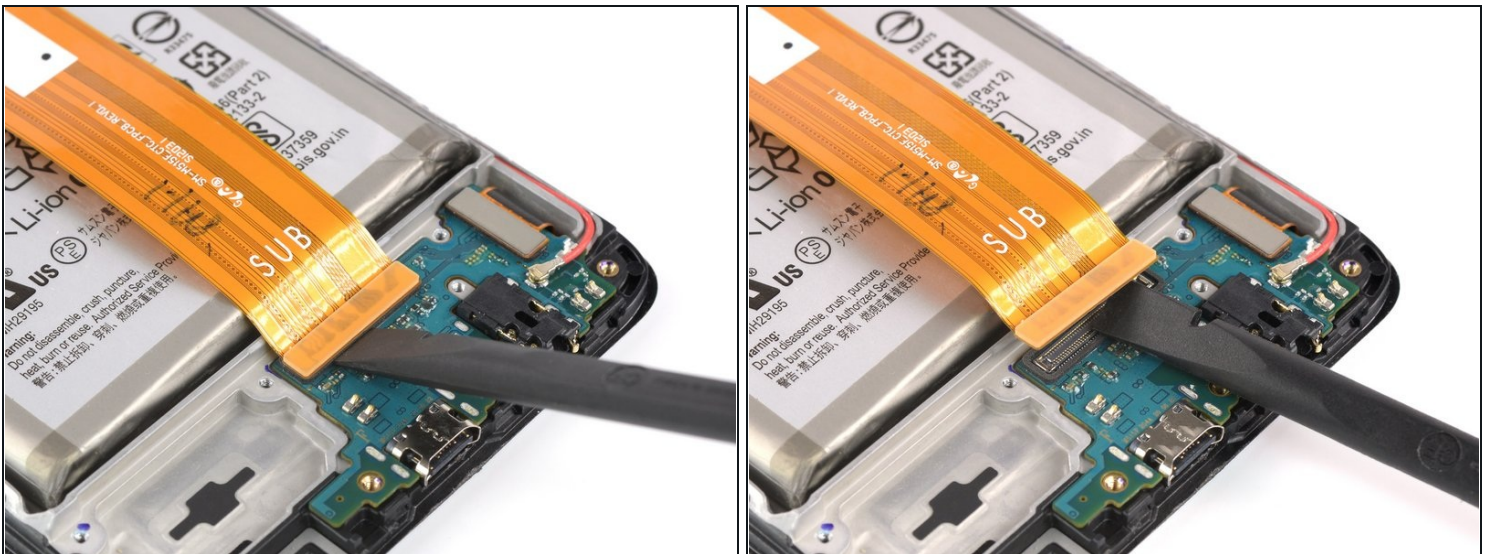
- Use the flat end of a spudger to disconnect the battery.

Step 17 — Disconnect the interconnect flex cable



- Use a flat end of a spudger to disconnect the interconnect flex cable from the motherboard.

Step 18



- Use the flat end of a spudger to disconnect the interconnect cable from the daughterboard.

Step 19 — Heat an iOpener



- Apply an [iOpener](#) for 2-3 minutes to the screen to loosen the adhesive underneath. You might need to repeat this procedure several times during the battery replacement.
- ⓘ If you have trouble to remove the battery during this process you can apply high concentration (over 90%) isopropyl alcohol to the edges of the battery to loosen the adhesive.

Step 20 — Slice the adhesive



⚠ Try your best not to deform the battery during this process. Soft-shell lithium-ion batteries can leak dangerous chemicals, catch fire, or even explode if damaged. Do not use excessive force or pry at the battery with metal tools.

- Insert a [plastic card](#) underneath the bottom edge of the battery.
- Slice the plastic card through all the adhesive until you're able to pry it up.

Step 21 — Remove the battery



- Remove the battery.
- ⚠ Do not reinstall a damaged or deformed battery, as doing so is a potential safety hazard.
- ⓘ Before installing a new battery, remove any remaining adhesive from the phone, and clean the glued areas with isopropyl alcohol and a lint-free cloth.

If possible, turn on your device and test your repair before installing new adhesive and resealing.

Secure the new battery with pre-cut adhesive or double-sided adhesive tape. In order to position it correctly, apply the new adhesive into the device at the places where the old adhesive was located, not directly onto the battery. Press the new battery firmly into place.

To reassemble your device, follow these instructions in reverse order. Apply new adhesive where necessary after cleaning the relevant areas with isopropyl alcohol (>90%).

For optimal performance, [calibrate your newly installed battery](#): Charge it to 100% and keep charging it for at least 2 more hours. Then use your device until it shuts off due to low battery. Finally, charge it uninterrupted to 100%.

Take your e-waste to an [R2 or e-Stewards certified recycler](#).

Repair didn't go as planned? Try some [basic troubleshooting](#), or ask our [Answers community](#) for help.