



Motorola Moto Z Play Battery Replacement

How to replace a failing Motorola Moto Z Play battery.

Written By: Jeff Suovanen



INTRODUCTION

If the battery on your phone doesn't seem to hold a charge like it used to, it might be time to replace it. Follow this guide to replace your battery. If your battery is swollen, [take appropriate precautions](#).

Warning: Because of the strong adhesive securing the display, minimal clearance for inserting your tools, and high heat required, there's a good chance of accidentally damaging the display during this procedure. If you're replacing the display anyway, then you don't have to worry—but for all other repairs, work very carefully, and be prepared to replace the display afterward if necessary.

TOOLS:

- Tweezers (1)
- iOpener (1)
- iFixit Opening Picks set of 6 (1)
- Spudger (1)
- Suction Handle (1)
- T3 Torx Screwdriver (1)
- iFixit Opening Tools (1)

PARTS:

- Motorola Moto Z Play Replacement Battery (1)

Step 1 — Display Assembly



Power your phone off before you begin.

- If possible, drain the battery before disassembly. When the battery is charged, there's increased risk of a dangerous thermal event if the battery is overheated or damaged during repairs.
- If your display is cracked, completely cover it with packing tape to contain the glass shards and avoid injury.

Step 2

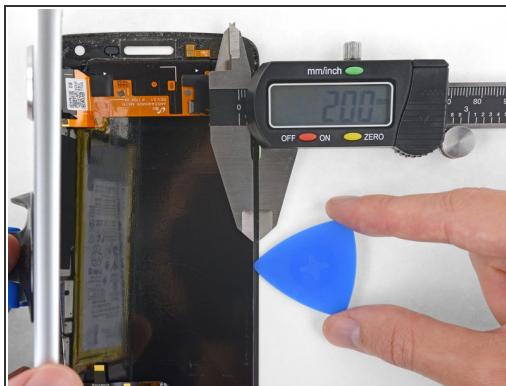


- [Prepare an iOpener](#) and heat the front of the phone along its left edge for about two minutes, or until it's slightly too hot to touch. This will help soften the adhesive securing the display.

i You may need to reheat and reapply the iOpener several times to get the phone warm enough. Follow the iOpener instructions to avoid overheating.

! 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



ⓘ In the following steps, you will separate the display assembly from the Moto Z Play's chassis.

- For reference, refer to the first image, showing the back of the display assembly (right) after it has been removed from the phone (left).
- If you plan to re-use the display assembly, pay particular attention to the side edges. When slicing through the glue in this area, you must be careful to insert your tool *less* than 2 mm, or your tool will come in contact with the display panel and damage it.
- Playing cards are a safer, but much slower, prying tool. The soft paper cards are less likely to damage the display panel, which is good news if you plan to reuse it.

Step 4



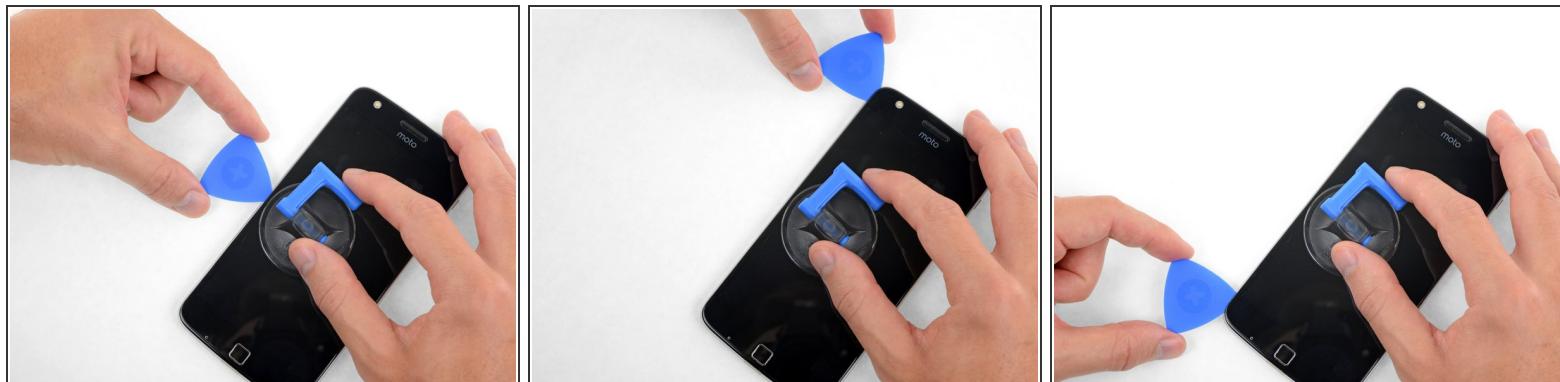
- Apply a suction cup to the display, near the middle of the left edge.
- Pull up on the suction cup with firm, constant pressure to create a slight gap between the front panel and rear case.
 - ⓘ If the screen is cracked, the suction cup may not stick. [Try lifting it with strong tape](#), or superglue the suction cup in place and allow it to cure so you can proceed.
- This may require a significant amount of force, but you only need to open a very slight gap with the suction cup to insert your tool.
- If you have trouble, apply more heat to further soften the adhesive, and try again. The adhesive cools very fast, so you may need to heat it repeatedly.

Step 5



- Insert an opening pick (or playing card) into the gap you opened behind the display.

Step 6



- Slide the tool all along the left edge of the phone to slice through the adhesive securing the display.

Step 7



- Heat the front of the phone between the display and the lower edge to soften the adhesive underneath.

Step 8



- Slice through the glue under the lower bezel, being careful not to damage the fingerprint sensor.
- Slide or roll your tool past the lower edge of the fingerprint sensor and continue to the other side. Do not pry directly underneath the sensor.

⚠ If you plan to re-use the display, be careful not to slice or pry at the display panel. [Refer to this image](#) to help identify the glued areas while avoiding the display panel (highlighted in red).

Step 9



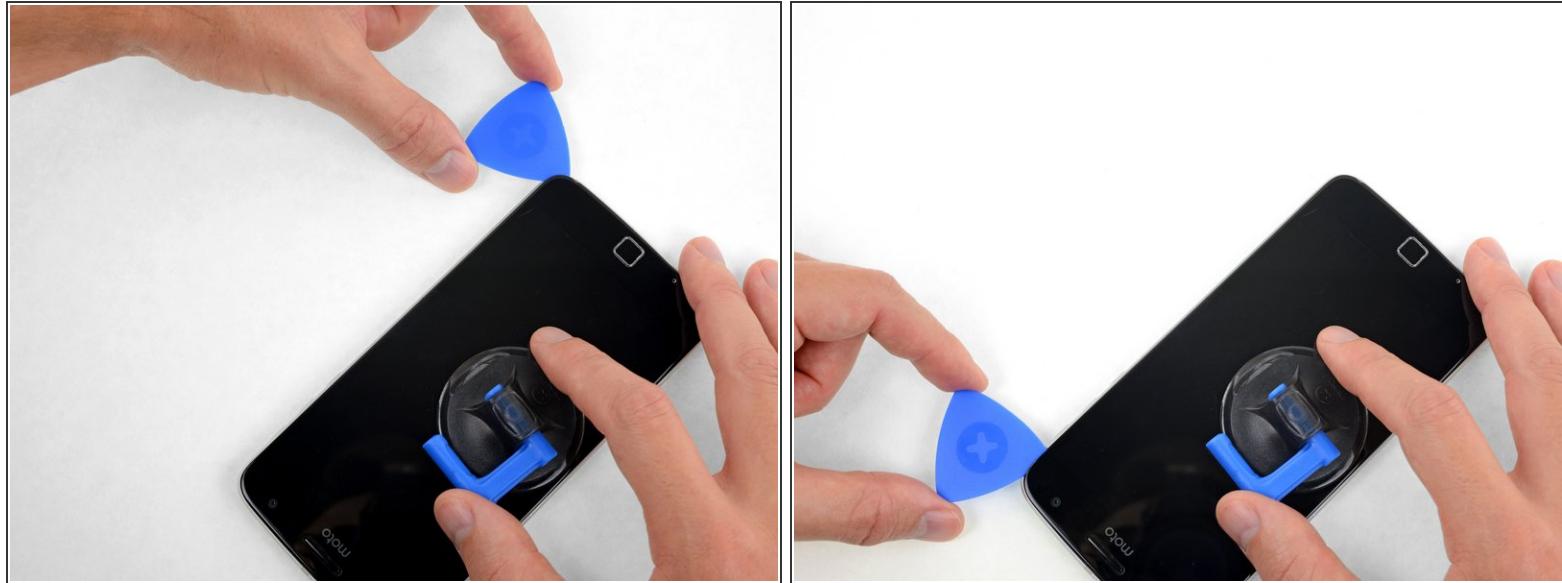
- Continue separating the glue underneath the rest of the lower bezel.

Step 10



- Heat the right edge of the phone to soften the adhesive securing the right edge of the display.

Step 11



- Slide your tool along the right edge of the phone to separate the glue securing the display.

Step 12



- Heat the front of the phone between the display and the top edge.

Step 13



- Insert your tool at the top right corner of the phone, and begin to slide it underneath the top bezel to separate the glue.
- ⚠ As before, if you want to re-use the display, don't insert the tool far enough to touch the display panel.
- When your tool just passes the left edge of the earpiece speaker, **stop**.
- Slide or roll your tool over the top of the [flash module for the selfie camera](#) to avoid damaging it.

Step 14



- If the display remains stuck, re-heat and slice the adhesive repeatedly as needed.
- Lift the display from the left edge and swing it open, away from the phone.

This document was generated on 2020-04-03 07:08:44 AM (MST).

Step 15



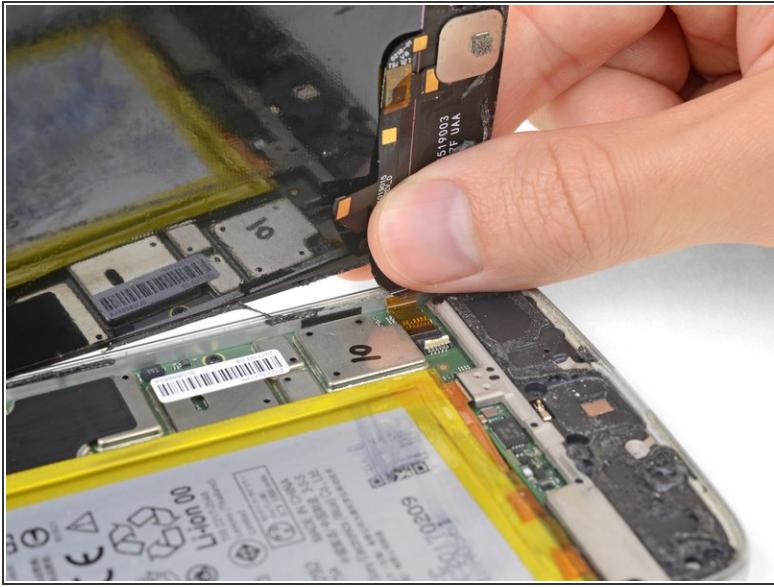
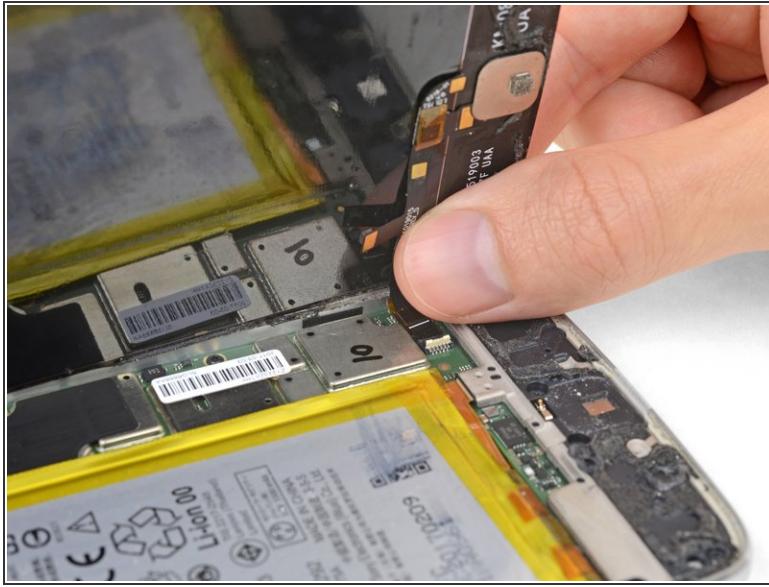
- While holding the display open, use the point of a spudger to pry up the locking tab on the fingerprint sensor cable's [ZIF connector](#).

Step 16



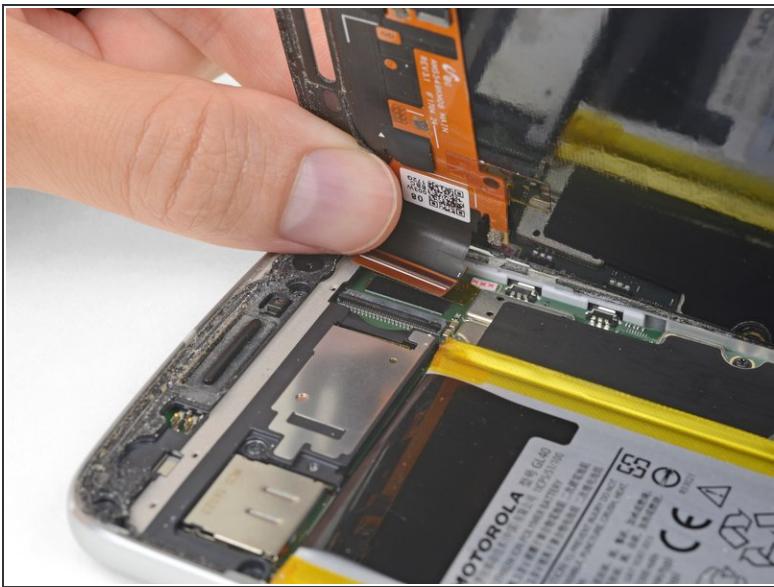
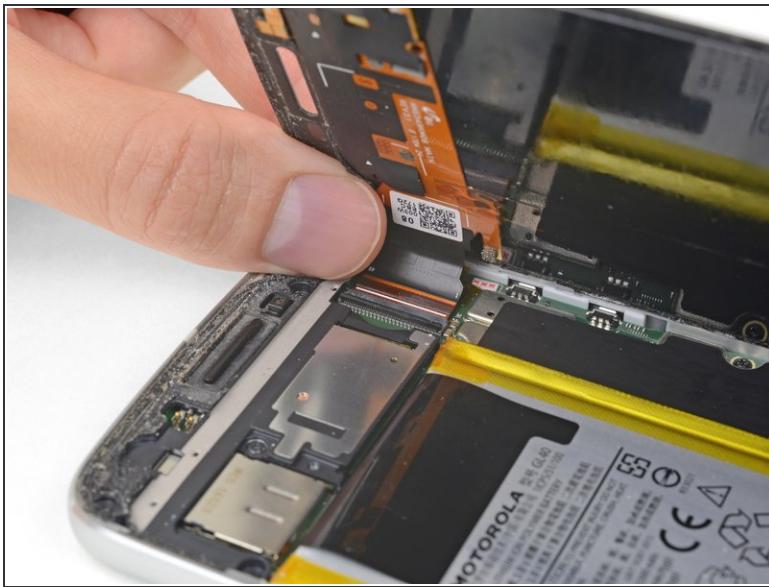
- At the opposite end of the phone, use your spudger to flip open the locking tab on the display cable connector.

Step 17



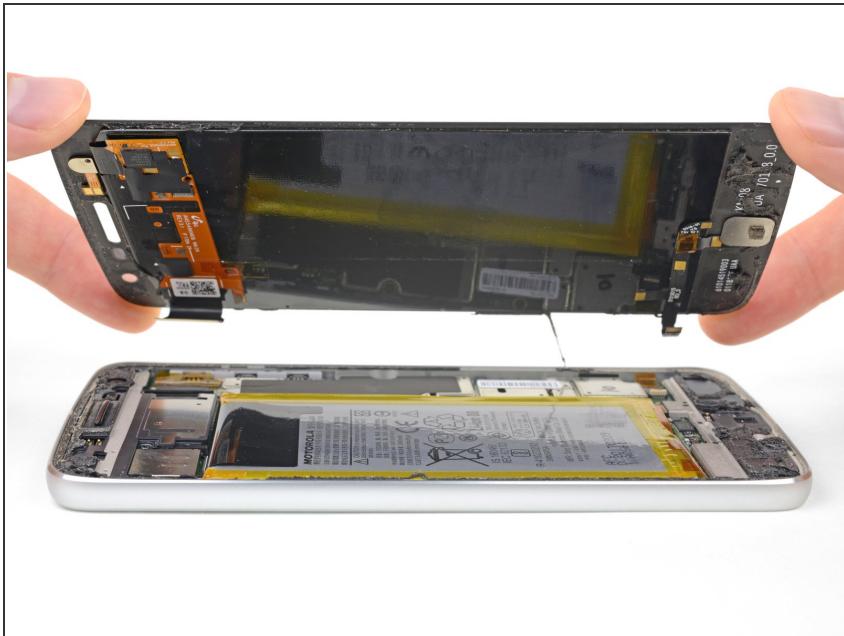
- Gently pull the fingerprint sensor cable to slide it out of its socket, disconnecting it from the motherboard.

Step 18



- Gently pull the display cable to slide it out of its socket on the motherboard.

Step 19



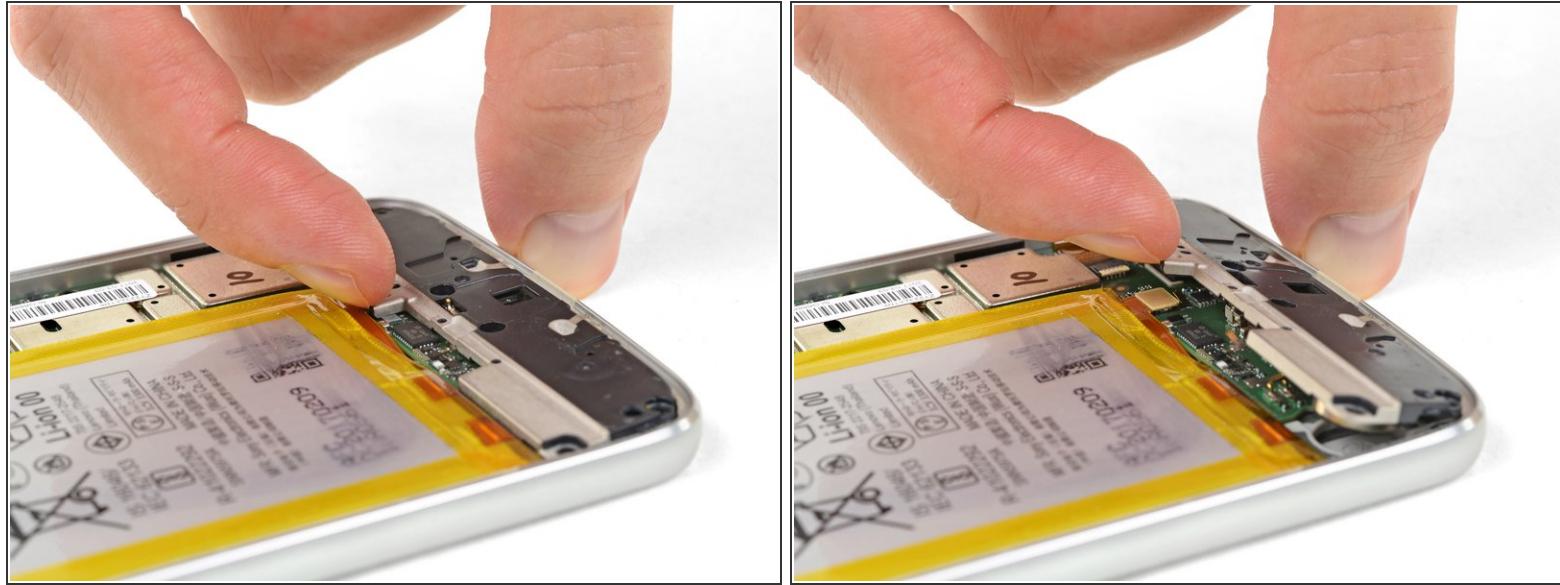
- Remove the display assembly.

Step 20 — Battery



- Use a T3 Torx driver to remove the six 3.2 mm screws securing the lower cover.

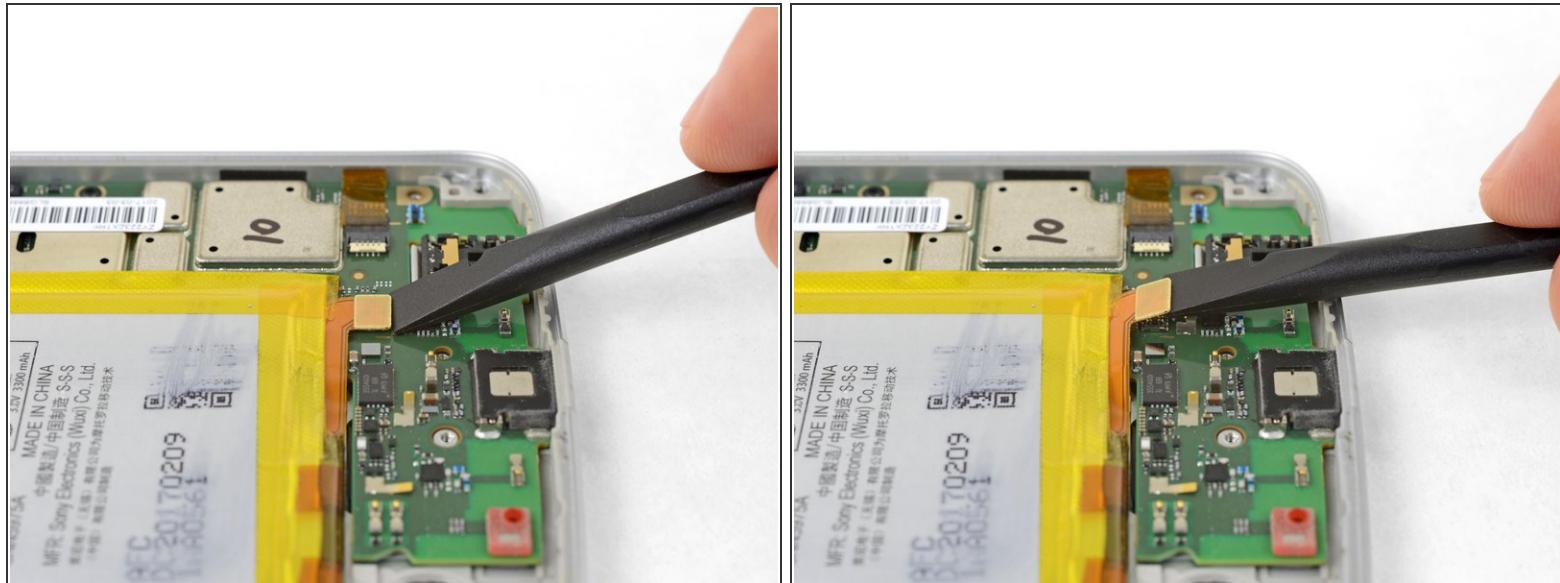
Step 21



- Pry up and remove the lower cover.

⚠ If you use a tool, don't pry against the battery or motherboard.

Step 22



- Use a spudger to disconnect the battery by prying its connector straight up from the motherboard.

Step 23



(i) The battery is strongly glued into place.

- Peel up the black pull tab at the top edge of the battery, and slowly pull it away from the battery at about a 45-degree angle to release the command strips (a.k.a. stretch-release adhesive) underneath.
- If the command strips break or the black pull tab is missing, you can still remove the battery using heat and/or isopropyl alcohol to weaken the adhesive.
- Apply some high concentration (>90%) isopropyl alcohol under each corner of the battery and allow it to penetrate for several minutes to help weaken the adhesive.
- Alternatively, [apply a freshly heated iOpener](#) to the back of the phone directly behind the battery for two minutes to help soften the adhesive. Re-heat and reapply the iOpener as necessary.

Step 24



⚠ When using tools to pry up the battery, be careful not to damage the two orange flex cables hidden underneath the battery's top edge.

- Insert several opening picks or a plastic card along the outer edge of the battery.
- Apply steady, even pressure to *slowly* lever the battery up and out of the phone.
 - i** If necessary, use several rounds of heating and pressure to slowly weaken the adhesive, and the battery will begin to separate.

⚠ 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.

Step 25



- Continue pulling up the battery until all the adhesive releases from the rear case.

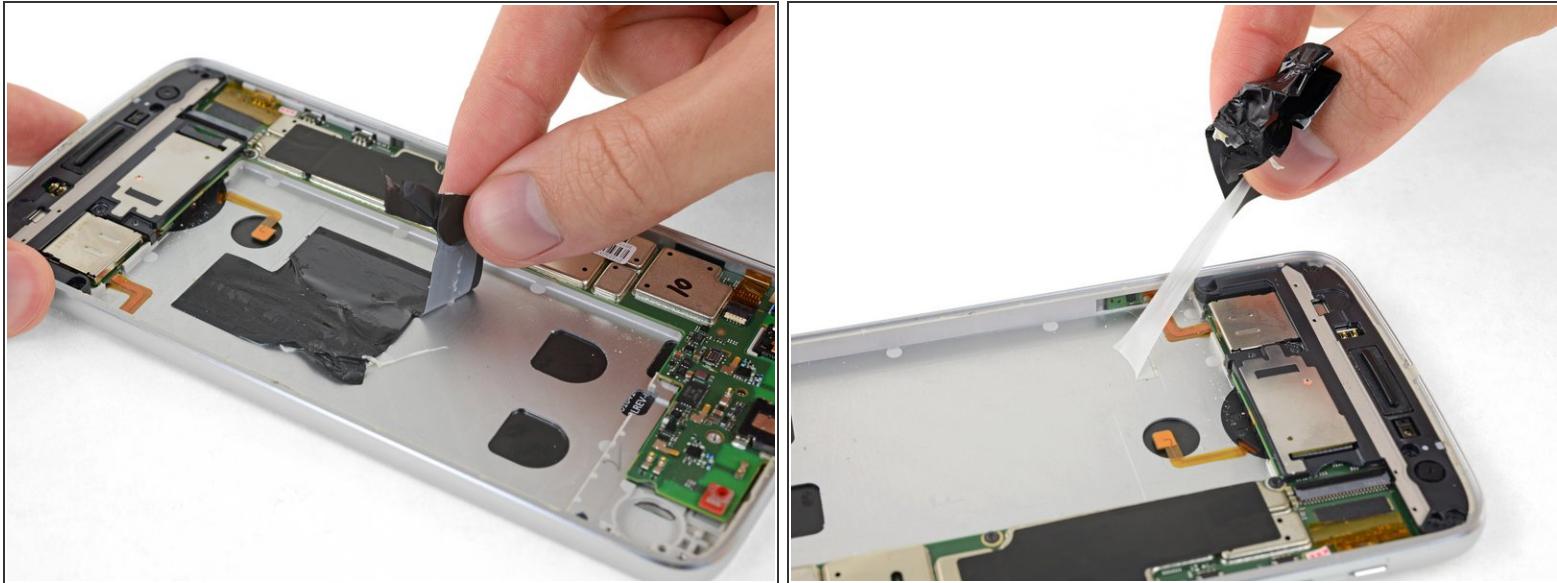
Step 26



- Remove the battery.

⚠ Do not reuse the battery after it has been removed. The stress of removal can cause hidden damage to the battery cell, creating a potential safety hazard. Replace it with a new battery.

Step 27



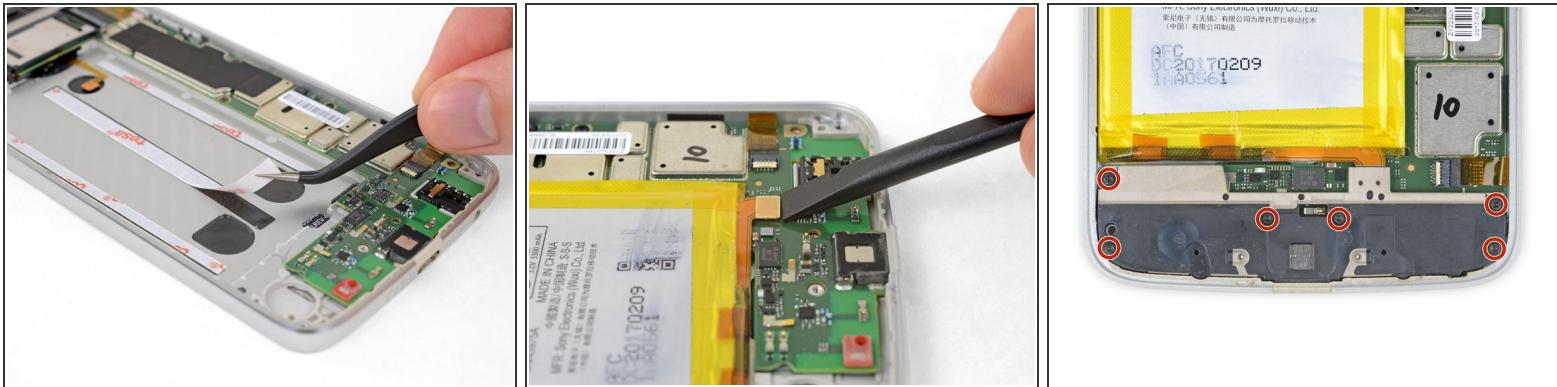
- Before installing your new battery, peel up all the old adhesive and remove it from the phone.
- For best results, clean the area underneath the battery with isopropyl alcohol and a lint-free cloth or coffee filter. This helps prep the surface so the new battery will adhere more strongly.

Step 28



- Place several strips of thin double-sided adhesive tape, either from a [pre-cut adhesive card](#) or from a roll of [Tesa 61395](#), into the battery well, and press them firmly into place.

Step 29



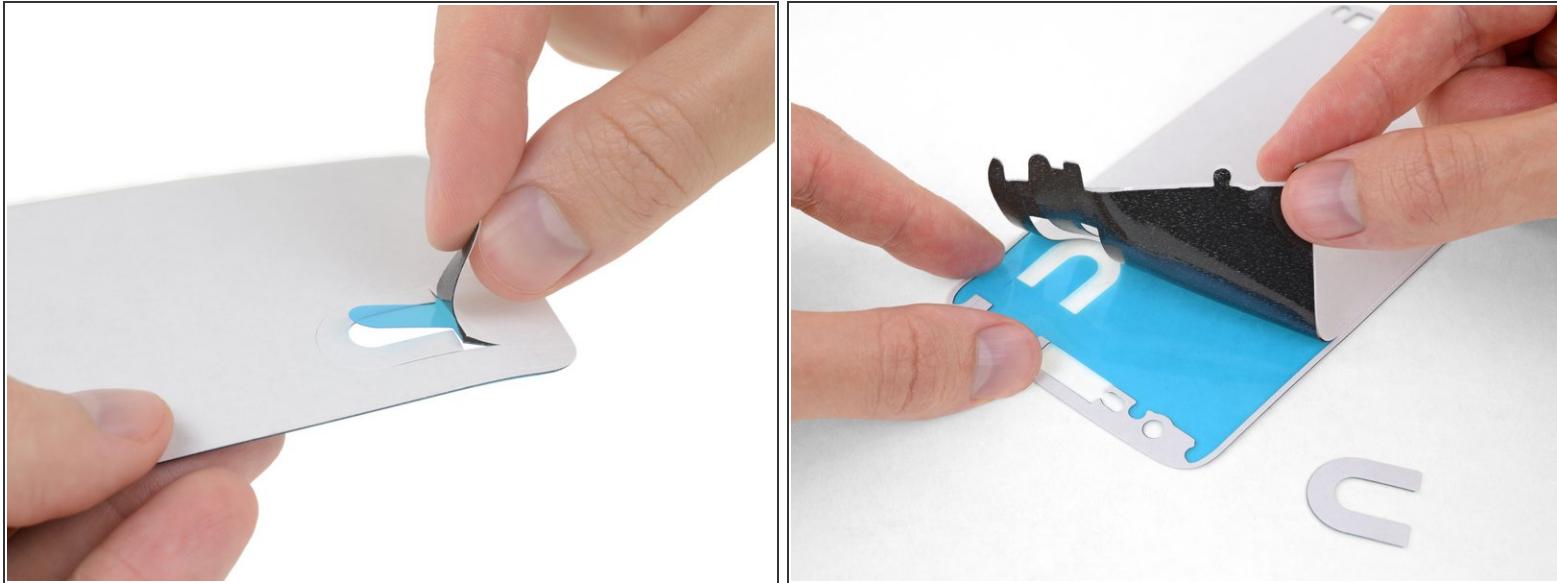
- Peel off the remaining film liners to expose the adhesive before pressing your new battery into place.
- Carefully position the battery and press it firmly and evenly into the phone.
- Connect the battery to the motherboard, and install the lower cover, including its six T3 Torx screws.

Step 30 — Display Installation



- Peel away and remove all the old display adhesive from the body of your phone.
-  If you're reinstalling your existing display, remove all the old adhesive from that as well.
- Use the point of your spudger to scour away and remove any smaller bits of adhesive that remain stuck.
-  Be extremely careful not to accidentally puncture the battery with your spudger.
- For best results, clean the area underneath the removed adhesive with isopropyl alcohol to help prep the surface so the new adhesive bonds more strongly.

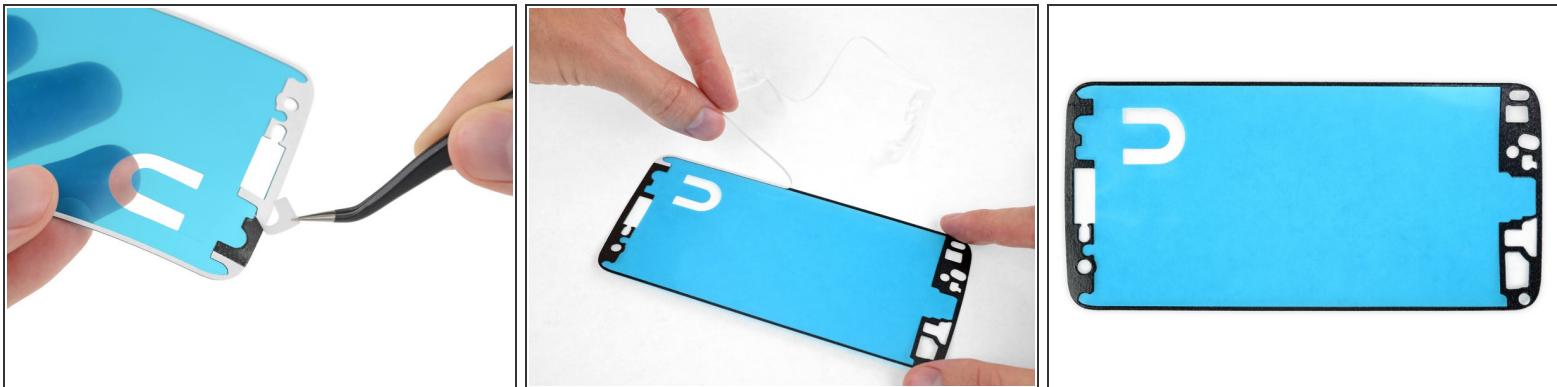
Step 31



(i) Some pre-cut adhesive sheets for the display contain up to three layers: a plastic liner (usually blue), an adhesive layer in the middle (black), and a wax paper liner (white).

- If yours came with a paper liner, peel it away and remove it.

Step 32



- Peel off and discard any remaining paper liner, exposing the adhesive on one side.

 Before you continue, the adhesive sheet should look like the third image.

Step 33



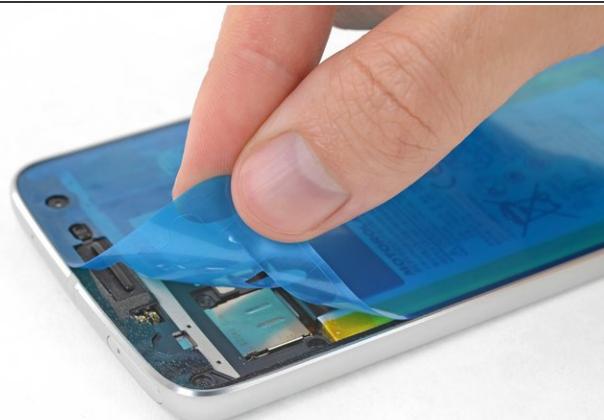
- Hold the adhesive sheet with the exposed adhesive facing down, and carefully align it into the lower edge of the phone.
- ⚠ Make sure the adhesive sheet is oriented correctly—the edge with multiple holes lines up with the bottom edge, and the rectangular cutout for the earpiece speaker lines up at the top.
- When it's correctly aligned, lower the rest of the adhesive sheet into the phone.

Step 34



- Firmly press the adhesive into place.
- Use the flat edge of your spudger to press along the edges and hard-to-reach areas.
- ⚠ Be very careful not to accidentally puncture the battery with your spudger.

Step 35



- Peel off and discard the plastic liner, exposing the display adhesive.

Step 36



- Before sealing the display in place, connect the flex cables for the display and fingerprint sensor, and then power your phone on.
- Test all functions to make sure your repair was successful before sealing up the display.

 When fully inserted, the white line across each flex cable should be even with the markings on the motherboard on each side of the cable.

 Do not remove, insert, or adjust the cables while the phone is powered on.

 The cables can be tricky to align and install. Be sure not to touch the gold contacts on the back, or your finger oils may cause a malfunction. If you do accidentally touch them, wipe them gently with isopropyl alcohol.

Step 37



- When your repair is tested and complete, press the display firmly into place and remove any plastic liners from the screen.

 To help the display adhesive bond more securely, heat the perimeter of the display and then place the phone face-up under a heavy stack of books for 30 minutes.

 Don't rest the phone on its camera bump while doing this, or the uneven pressure may prevent your display from adhering correctly. Place a couple thin books under the phone on either side of the camera bump to elevate it and keep the pressure in the right place.

Compare your new replacement part to the original part. You may need to transfer remaining components or remove adhesive backings from the new part before installing.

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

After completing this guide, [calibrate your newly-installed battery](#).

Repair didn't go as planned? Check out our [Answers community](#) for troubleshooting help.