



# Motorola Moto Z3 Battery Replacement

Remove and replace the battery in a Motorola Moto Z3.

Written By: Adam O'Camb



## INTRODUCTION

Use this guide to remove and replace a dead or low battery in a Motorola Moto Z3. 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:

- iOpener (1)
- Suction Handle (1)
- Spudger (1)
- Tweezers (1)
- Isopropyl Alcohol (1)
- iFixit Opening Picks set of 6 (1)

### PARTS:

- Moto Z3 Play Display Adhesive (1)
- Moto Z3 Play Replacement Battery (1)
- Precut Adhesive Card (1)

## Step 1 — Heat the display



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

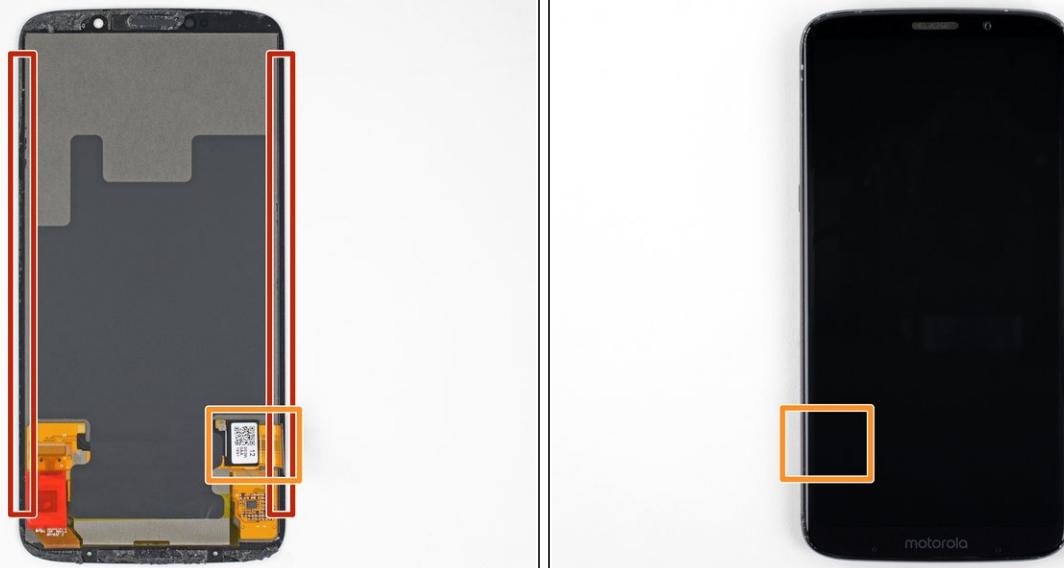


You may need to reheat and reapply the iOpener several times to get the phone warm enough. Follow the iOpener instructions to avoid overheating.



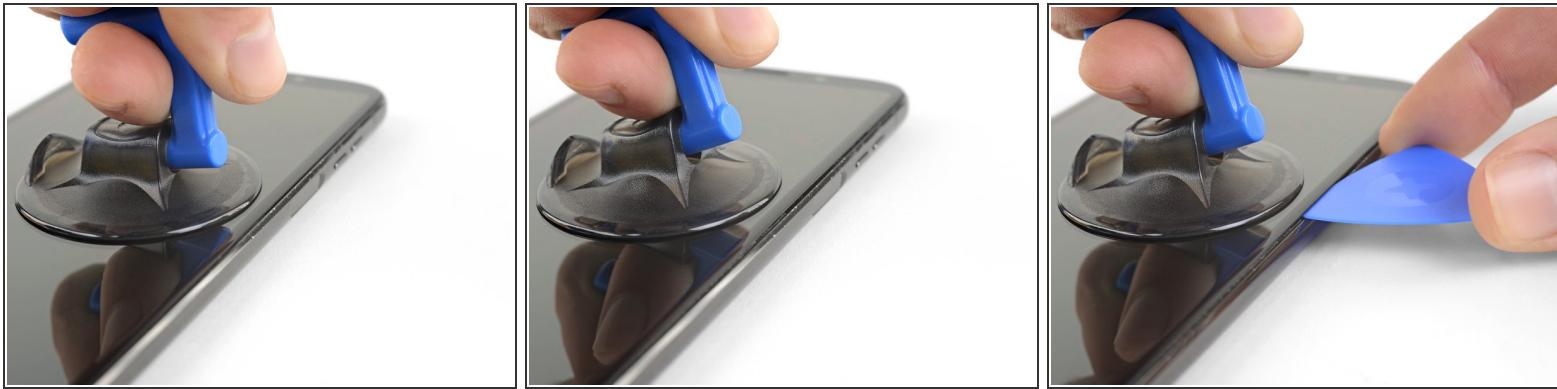
A hair dryer, heat gun, or hot plate may also be used, but be careful not to overheat the phone —the display and internal battery are both susceptible to heat damage.

## Step 2 — Display adhesive and cutting reference



- In the following steps, you will separate the display assembly from the Moto Z3's chassis.
- *(i)* The first image shows the back of the display assembly after it has been removed from the phone. The second image shows the front of the phone to reference where the display cable lies.
- 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 LCD and damage it.
- Take special care when cutting near the display cable. If you pry too deep or too forcefully, it is very easy to damage the cable. If you encounter extra resistance around this area, do not try to force the pick forward. Pull it out and reinsert it on the other side of the display cable before you continue cutting.
- *(i)* Playing cards are a safer, but much slower, prying tool. The soft paper cards are less likely to damage the LCD, which is good news if you plan to reuse it.

## Step 3 — Cut the display adhesive



- Apply a suction cup to the display, near the middle of the right edge.
- Pull up on the suction cup with firm, constant pressure to create a slight gap between the display 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 quickly, so you may need to heat it repeatedly.
- Insert an opening pick (or playing card) into the gap you opened behind the display.

**⚠** Do not insert the tool more than 1.5 mm past the edge of the display.

## Step 4



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

**⚠** If you plan to reuse the display, continue moving the tool in a straight line as you approach the corners of the phone—do not round the corners with the tool. The corners of the LCD come very close to the edge of the digitizer and are easy to damage.

## Step 5



- Heat the upper edge of the display to soften the adhesive underneath.

## Step 6



- Slide your tool underneath the top bezel to separate the glue.

**⚠** You can insert the pick slightly deeper here, but if you want to re-use the display, don't insert the tool more than 5.5 mm past the edge of the display.

## Step 7



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

## Step 8



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

⚠ Be very careful when slicing near the bottom of the phone to avoid damaging the display cable. Refer to [step two](#) for help identifying and avoiding the display cable.

## Step 9



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

## Step 10



- Slice through the glue under the lower bezel.

 You can insert the pick slightly deeper here, but if you want to re-use the display, don't insert the tool more than 4 mm past the edge of the display.

## Step 11 — Remove the display



- If the display remains stuck, re-heat and slice the adhesive repeatedly as needed.
- Lift the display from the right edge and swing it open, away from the phone. The display is still attached to the phone chassis at the lower left edge, so do not fully remove it yet.

 When you lift the display, two small plastic gaskets—[one for the front-facing camera](#), and [one for the front-facing sensors](#)—may fall out of the phone. Keep track of these gaskets and make sure to reinstall them before sealing the phone.

## Step 12



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

## Step 13



- Gently lift the display, making sure the display cable slides smoothly out of its socket.
- Remove the display assembly.

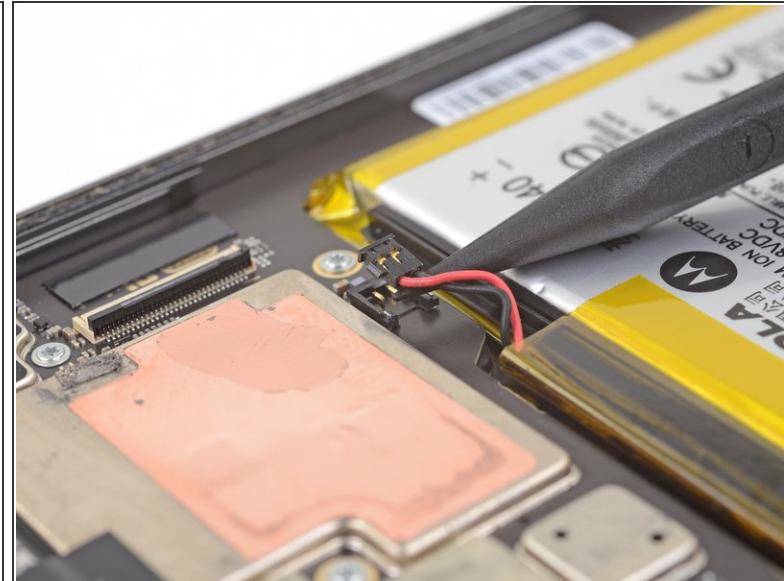
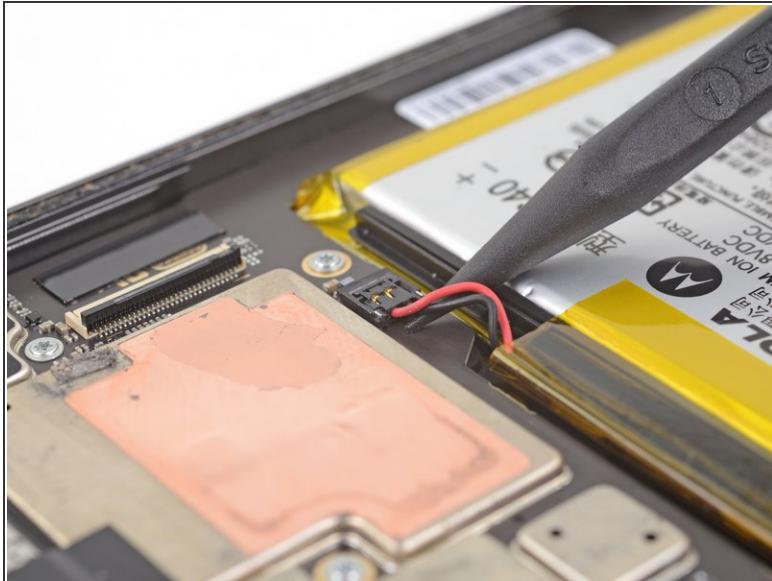
 During reassembly, pause here and [replace the adhesive around the edges of the display](#).

## Step 14 — Remove the tape



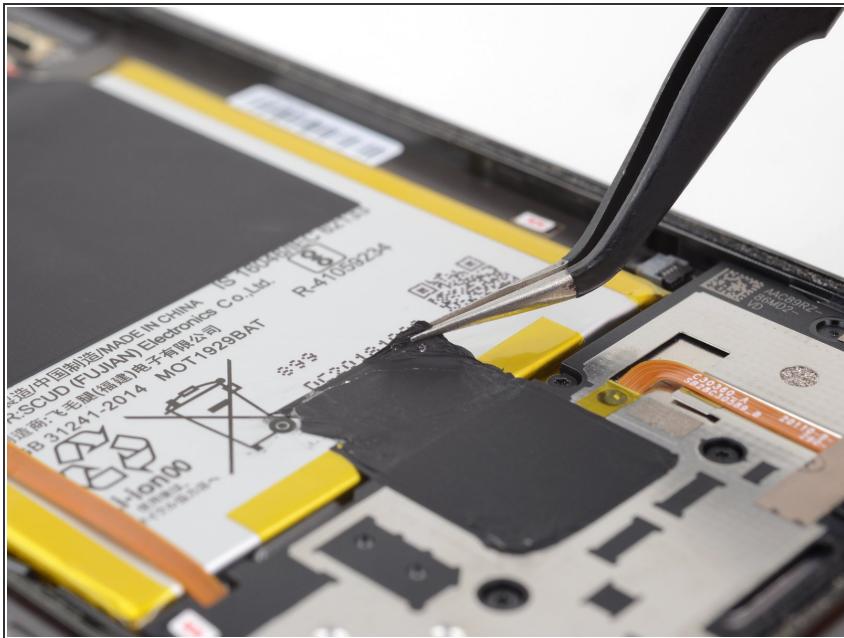
- Use tweezers to peel up the black tape over the battery connector off of the battery.
- *(i)* If possible, avoid damaging the tape so that it can be reused.

## Step 15 — Disconnect the battery



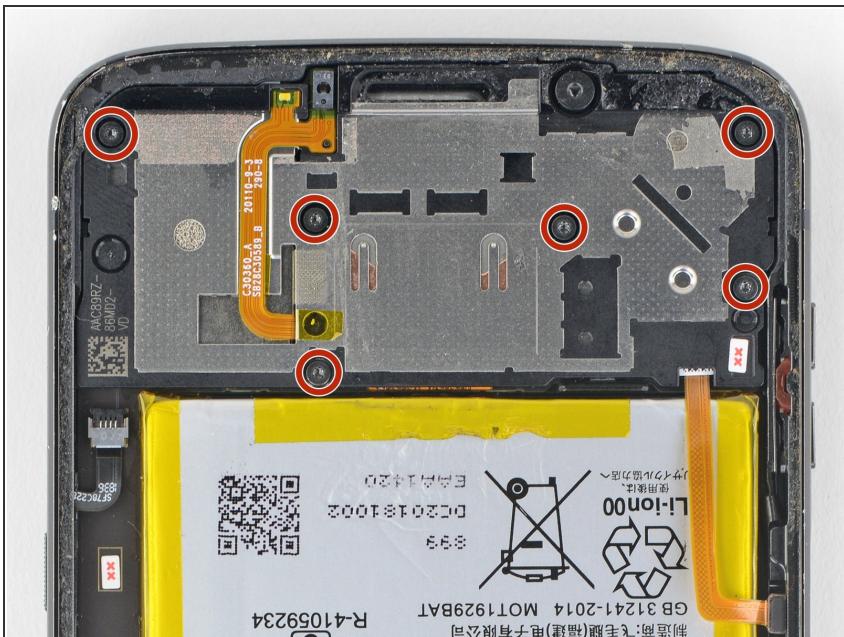
- Use the point of a spudger to pry the battery connector straight up and disconnect it.

## Step 16 — Remove the tape



- Use tweezers to peel up and remove the black tape at the bottom of the battery.
- *(i)* If possible, avoid damaging the tape so that it can be reused.

## Step 17 — Remove the earpiece speaker and front sensor assembly



- Remove six 3.4 mm-long T3 Torx screws.
- *(i)* There may be tape covering the screws in the top corners. If this is the case, carefully peel the tape back to access the screws, and replace it during reassembly.

## Step 18



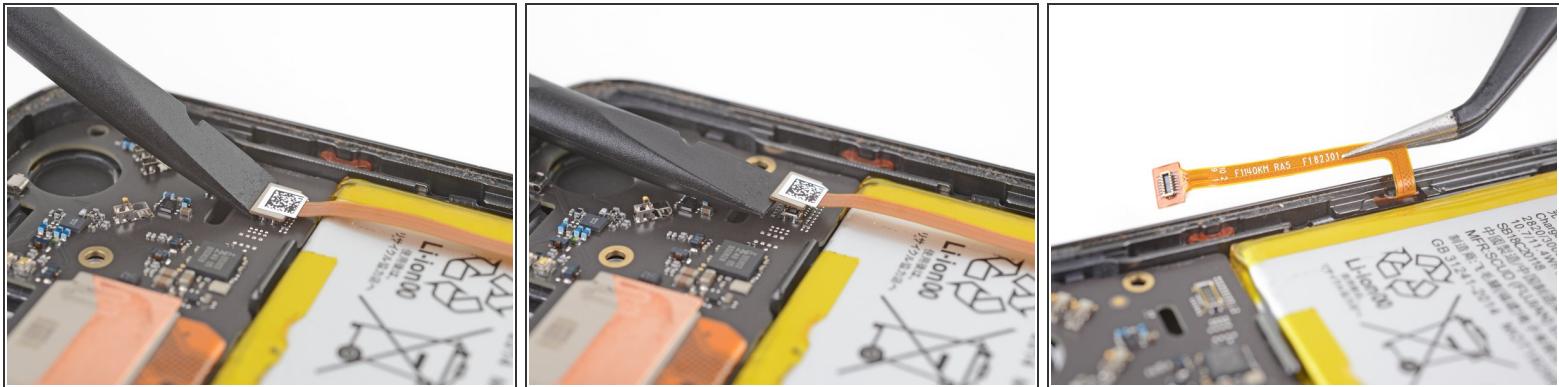
- Insert the point of a spudger into the small rectangular opening on the right edge of the earpiece speaker and sensor assembly.
- Use the spudger to pry the assembly up and release the clips securing it to the phone chassis.

## Step 19



- Remove the earpiece speaker and sensor assembly.
- ☒ The earpiece speaker connector sits under the assembly and will disconnect as you lift the assembly. During reassembly, make sure to reconnect this connector.

## Step 20 — Disconnect the fingerprint sensor



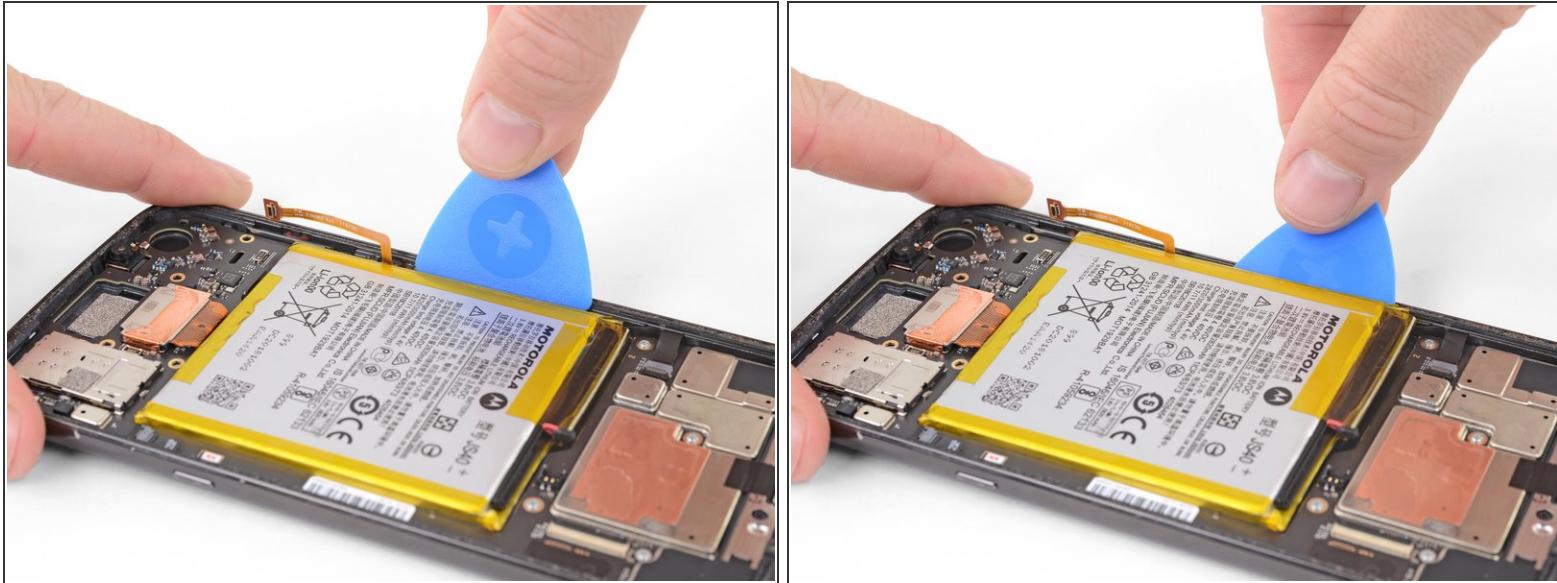
- Use the flat end of a spudger to lift the fingerprint sensor connector straight up and out of its socket.
- Use tweezers to gently bend the cable toward the edge of the phone to move it out of the way.

## Step 21 — Remove the battery



- [Apply a freshly heated iOpener](#) to the back of the phone directly behind the battery for two minutes to help soften the adhesive securing the battery.
  - Re-heat and reapply the iOpener as necessary.
- Alternatively, apply high-concentration (>90%) isopropyl alcohol under the edge of the battery to weaken the adhesive underneath. Let the phone sit for several minutes to allow the alcohol to penetrate and weaken the adhesive.

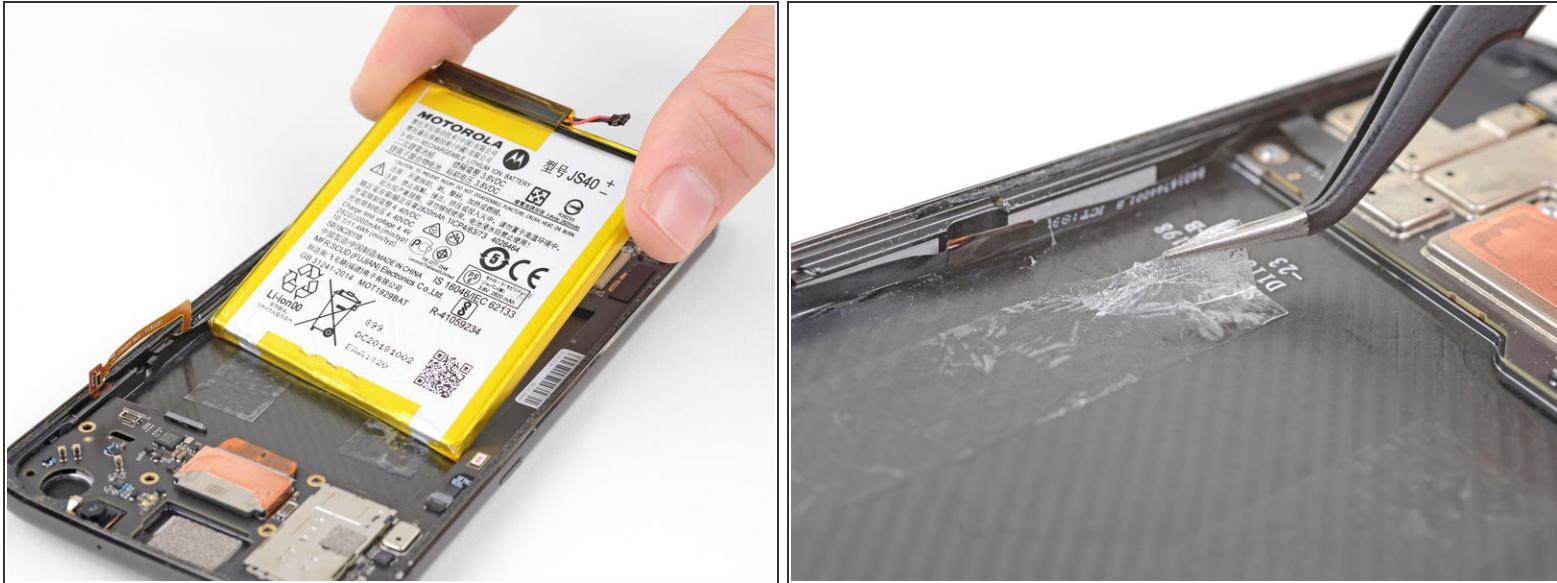
## Step 22



- Insert an opening pick or a plastic card along the edge of the battery.
- Apply steady, even pressure to slowly lever the battery up and out of the phone.
- If necessary, use several rounds of heating or alcohol 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 23



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

- 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 can adhere more strongly. Use a [pre-cut adhesive sheet](#) or [high-strength, double-sided tape](#) to install the new battery.

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.

**To reassemble your device, follow the above steps in reverse order.**

For optimal performance, [\*\*calibrate your newly installed battery\*\*](#): Charge it to 100%, and keep charging it for at least two more hours. Then, use it 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? Check out our [Answers community](#) for troubleshooting help.