



Steam Deck Battery Replacement

Use this guide to safely remove and replace a...

Written By: Carsten Frauenheim



INTRODUCTION

Use this guide to safely remove and replace a worn out or dead battery in a Steam Deck LCD.

For your safety, turn on your Steam Deck and allow the battery to fully discharge before starting this procedure. A charged lithium-ion polymer battery can be very dangerous if accidentally punctured. **Heating a charged battery is a fire hazard.** [If your battery looks puffy or swollen, take extra precautions.](#)

Note: The Steam Deck's battery is strongly adhered, requiring repeated heating and prying cycles. The heat produced by an iOpener may not be sufficient to loosen the adhesive, so a heat gun (or, alternatively, a hair dryer) is recommended for this procedure.

Remember: follow general [electrostatic discharge \(ESD\) safety procedures](#) while repairing your device.

Don't reuse the battery after it's been removed, as doing so is a potential safety hazard. Replace it with a new battery.

Note: Valve started shipping Steam Deck LCDs with refreshed internal designs in early 2023. Your Steam Deck may look different than the one depicted in the photos, but the procedure is very similar. [Remove the back cover](#) to check what version you have. An original Steam Deck will have a metallic motherboard shield and a fan with square sides, as [seen here](#). A refreshed Steam Deck will have a black motherboard shield and a fan with curved sides, as [seen here](#). Find Steam Deck OLED guides [here](#).

TOOLS:

- [Phillips #1 Screwdriver](#) (1)
- [iFixit Opening Picks \(Set of 6\)](#) (1)
- [Tweezers](#) (1)
- [Phillips #0 Screwdriver](#) (1)
- [Spudger](#) (1)
- [Scissors](#) (1)
- [Plastic Cards](#) (2)
- [Heat Gun](#) (1)
- [Painter's Tape](#) (1)
- [Hair Dryer](#) (1)

PARTS:

- [Steam Deck Battery](#) (1)
- [Steam Deck Battery Adhesive](#) (1)

Step 1 — Prepare your device



- Unplug any cables connected to your Steam Deck.

⚠ Turn on your Steam Deck and allow the battery to **discharge below 5%** before starting your repairs, as a charged lithium-ion polymer battery can be dangerous if accidentally punctured.

ⓘ Put your Steam Deck into **battery storage mode** within the BIOS. [Read how to do that here.](#)

⚠ If you have a microSD card installed, **make sure to remove it** before opening the Steam Deck. If you attempt to remove the back cover with it still installed, [it could snap right in half.](#)

ⓘ Pro tip: it can be helpful to lay the Steam Deck face-down into its case to protect the thumbsticks and prevent wobble.

Step 2 — Remove the back cover screws



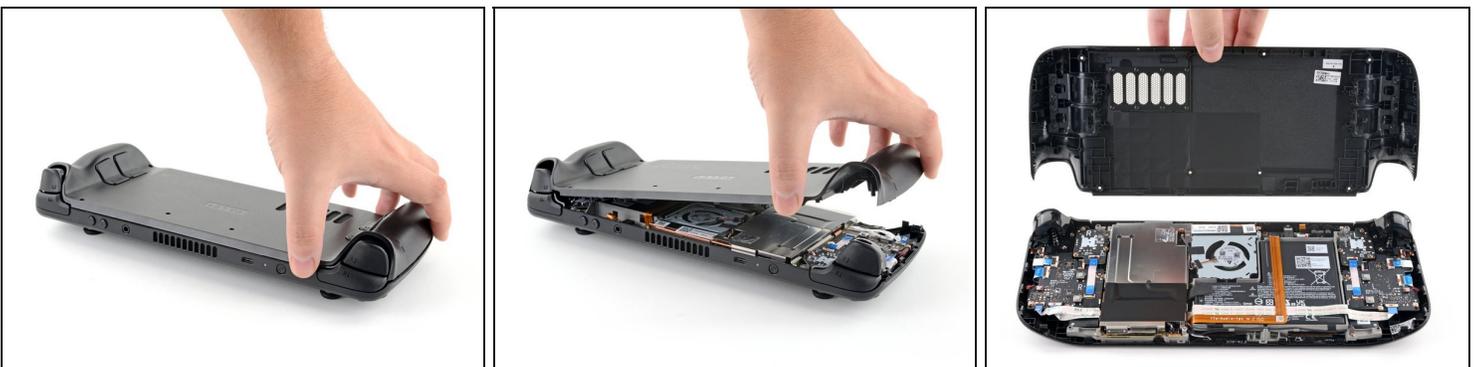
- Use a Phillips driver to remove the eight screws securing the back cover:
 - Four 9.5 mm screws
 - Four 5.8 mm screws
- ⓘ Despite the standards, Phillips screwdrivers can vary in size and shape—two drivers labeled as the same size may fit differently in the same screw. Use the size that fits the snugest into the screw head.
- ⓘ Throughout this repair, [keep track of each screw](#) and make sure it goes back exactly where it came from to avoid damaging your Steam Deck.

Step 3 — Unclip the back cover



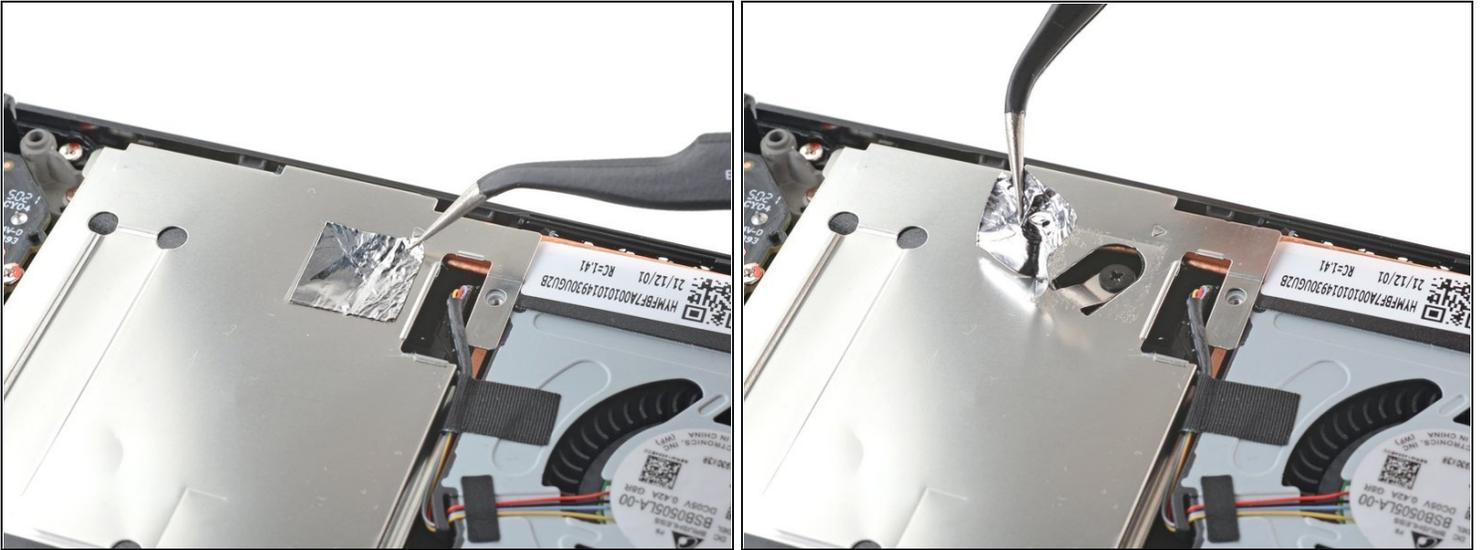
- Insert an opening pick into the thin gap between the back cover and the front shell, along the edge of one of the grips.
 - ⓘ If you're having trouble inserting your pick at the grip seam, try starting at either the top or bottom long edges first, then slide the pick towards the grip.
- Pry up on the back cover to release it from the locking clips.

Step 4 — Remove the back cover



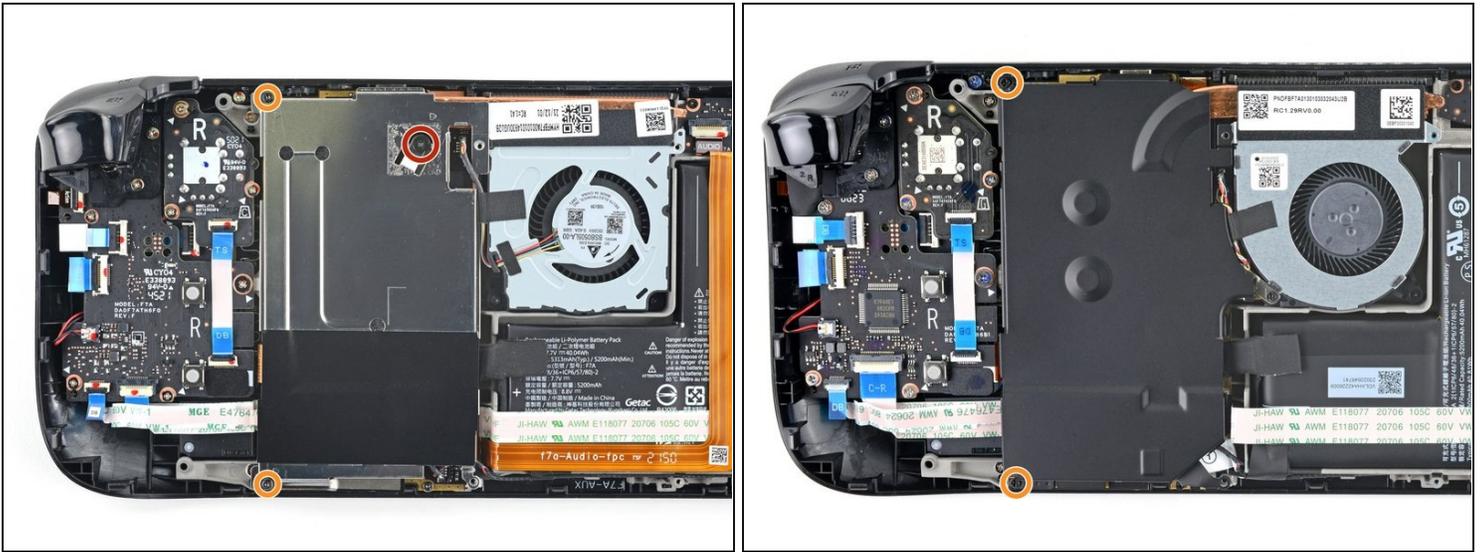
- ⓘ Once the clips are disconnected from one edge, the rest disconnect easily.
- Grip the back cover at the opening you just created and pull it up and away from the device to unclip the long edges.
- Remove the back cover.

Step 5 — Uncover the hidden shield screw



- ① If you have a [refreshed Steam Deck version](#) with the black motherboard cover, skip this step.
- Use a pair of tweezers to remove the piece of foil tape covering the hidden screw on the board shield.
 - ① If possible, try not to rip or tear this tape so it can be reused. If necessary, you can fashion a replacement by cutting a piece of aluminum foil tape to fit.

Step 6 — Remove the shield screws



- Use a Phillips driver to remove the three screws securing the board shield:
 - One 3.4 mm screw
 - Two 3.7 mm screws
- ⓘ Only the two 3.7 mm screws along the left edge are present in refreshed Steam Decks.

Step 7 — Remove the shield



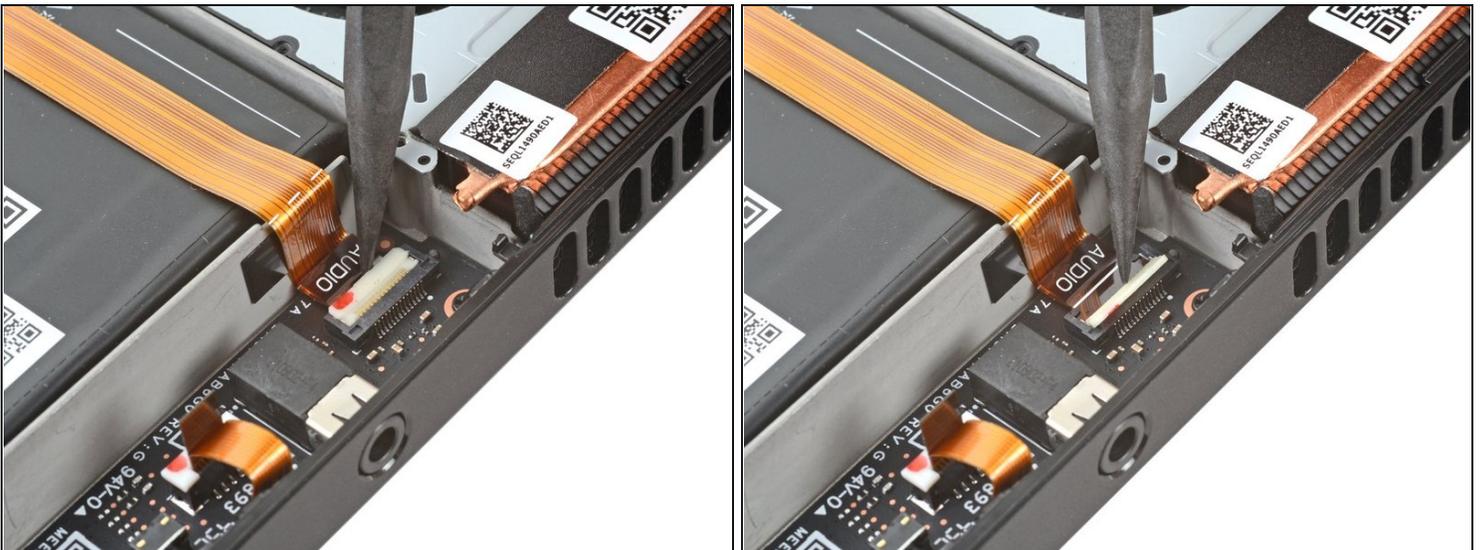
- Remove the board shield.
- ⓘ Depending on the age of your Steam Deck, this shield may stick to the thermal pads underneath.
- ☑ During reassembly, ensure that the fan cable [lays on the side of the board shield](#) and isn't pinched underneath.

Step 8 — Disconnect the battery



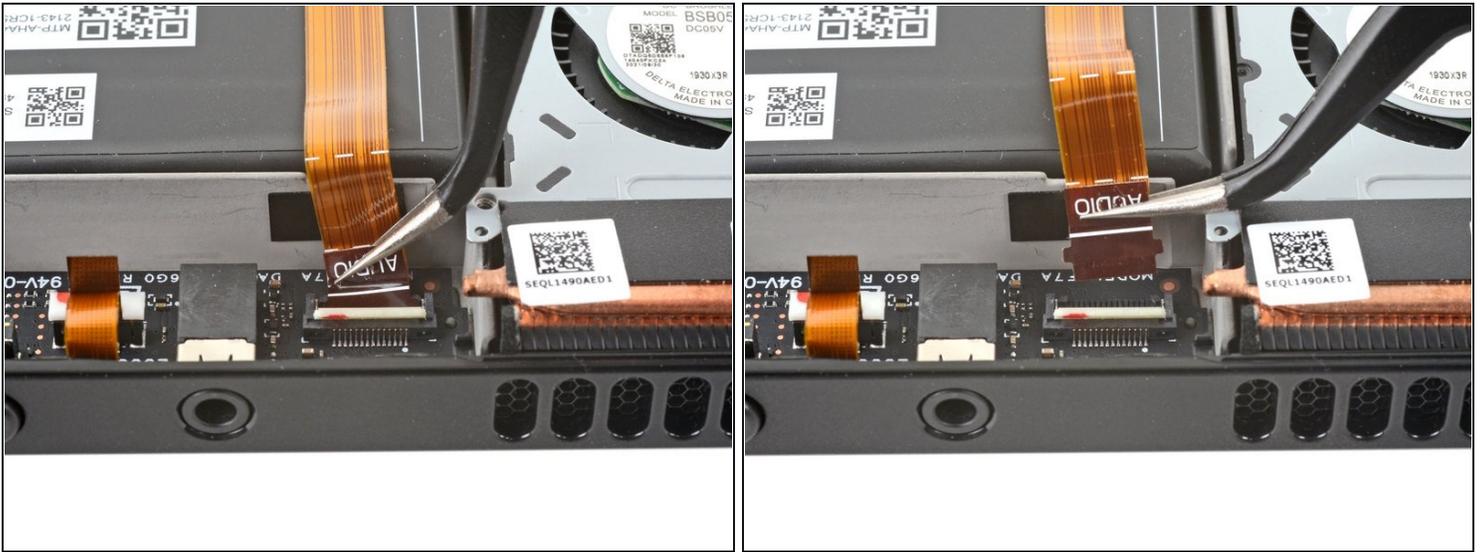
- Grip the battery cable by its pull tab and pull it directly away from the motherboard to disconnect it.
 - ① Alternatively, use the flat end of a spudger or a clean fingernail to gently push the connector out of its socket, then disconnect it completely by hand.

Step 9 — Disconnect the audio cable



- Use the pointed end of a spudger to lift up the small locking flap on the audio cable's ZIF connector.

Step 10



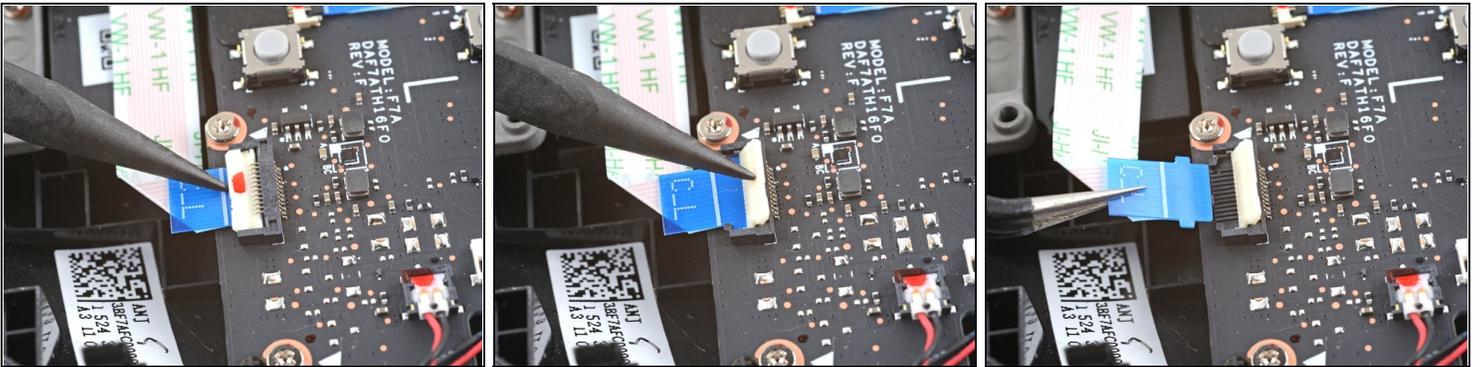
- Use a pair of tweezers to slide the cable out of its connector.
 - ⓘ Grip the cable by its pull tab, not by the cable itself.

Step 11 — Peel back the audio cable



- Carefully peel the audio cable off of the battery.
 - ⓘ The audio cable is secured to the battery with some light adhesive.
 - ⓘ If the adhesive is stubborn, don't force the cable. Lightly heat the audio cable using an iOpener or a hair dryer to soften the adhesive.

Step 12 — Disconnect the button board cable



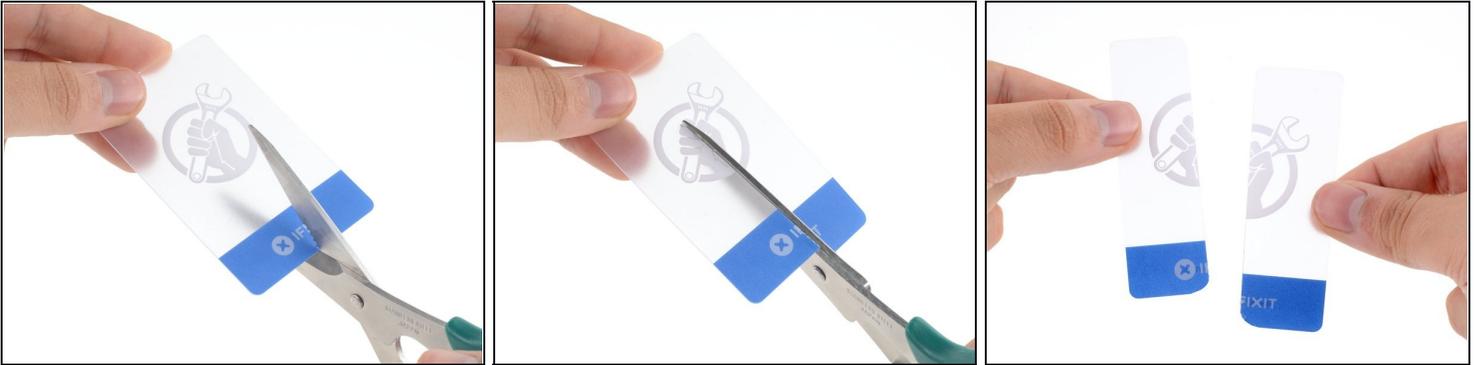
- Use the pointed end of a spudger to lift up the small locking flap on the button board cable's ZIF connector.
- Use a pair of tweezers to slide the cable out of its connector.
 - ⓘ Grip the cable by the blue pull tab, not by the cable itself.

Step 13 — Peel back the button board cable



- Carefully peel the button board cable off of the battery.
 - ⓘ The button board cable is secured to the battery with some light adhesive.
 - ⓘ If the adhesive is stubborn, don't force the cable. Lightly heat the button board cable using an iOpener or a hair dryer to soften the adhesive.
- ⓘ You may want to tape the audio and button board cables out of the way as you remove the battery.

Step 14 — Cut a plastic card in half



ⓘ In order to slice the battery adhesive through two small slits near the bottom of the Steam Deck's frame, two thin cards are needed.

- Use a pair of scissors to cut a [plastic card](#) in half, longways.
- Round over any sharp corners, as they could scrape or puncture the battery.

Step 15 — Heat the battery adhesive



- ⓘ The battery is strongly adhered to the Steam Deck. The adhesive loosens with constant, steady force, and it will require repeated heating and prying cycles.
- ⚠ Heating a charged battery is a **fire hazard**. Make sure you've **completely discharged your battery** before starting this step.
- ⚠ **Don't reuse the battery after it's been removed**, as doing so is a potential safety hazard. Replace it with a new battery.
- Use a heat gun to heat the adhesive underneath the battery for 1-2 minutes.
 - ⓘ Alternatively, a hair dryer may also be used.
- ⚠ Try your best to not overheat the battery. Keep the heat gun or hair dryer ~2 inches above the battery and constantly moving at all times—don't keep it heating one place for too long.
- ⓘ Although high-concentration isopropyl alcohol (>90%) may be an effective method to loosen this adhesive, there's a high risk of excess leaking onto or into the display or other components through [the cutouts on the battery tray](#).

Step 16 — Begin to pry up the battery



- Insert an uncut plastic card between the top edge of the battery and the frame.
- Insert a second plastic card between the right edge of the battery and the frame.

⚠ Don't use excessive force or pry at the battery with metal tools.

⚠ Try your best not to deform the battery during this process. Soft-shell lithium-polymer batteries can leak dangerous chemicals, catch fire, or even explode if damaged.

i The battery most likely won't budge at this step, but these cards will be helpful as leverage as you continue.

Step 17 — Reheat the battery adhesive



i You'll need to repeatedly reheat the adhesive to further soften it. The adhesive is tough and it may take a few tries to get a card started under the battery.

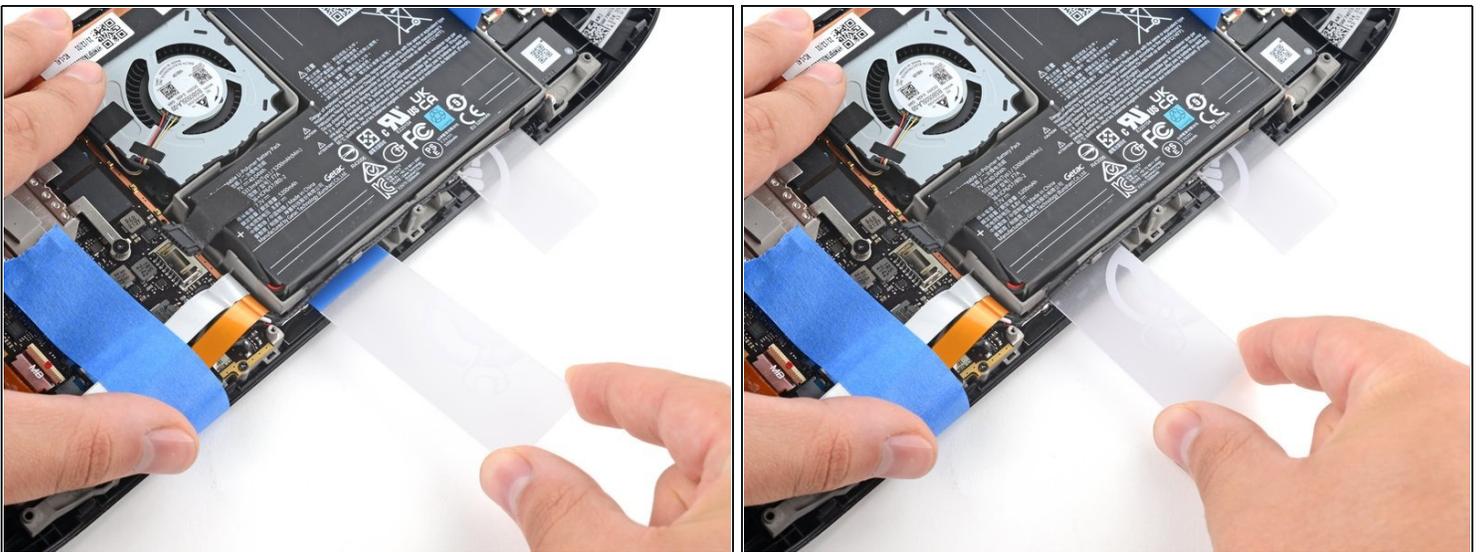
⚠ Try your best to not overheat the battery. Keep the heat gun or hair dryer ~2 inches above the battery and constantly moving at all times—don't keep it heating one place for too long.

Step 18 — Slice the battery adhesive



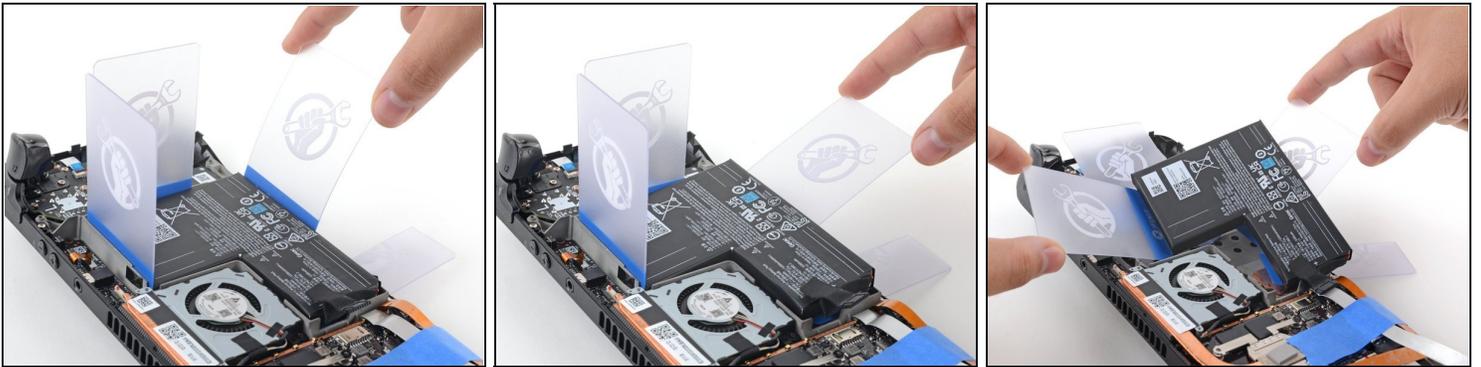
- Insert one of the cut plastic cards under the battery near its bottom right edge.
 - Push the card in to slice the battery adhesive, wiggling it side-to-side as you go.
- ⓘ If this is overly difficult, you may need more heat.

Step 19



- Insert the second cut plastic card under the battery near its bottom left edge.
- Push the card in to slice the battery adhesive, wiggling it side-to-side as you go.

Step 20 — Pry out the battery



- Insert a plastic card along the bottom edge of the battery to pry the battery away from the frame.
- Lift the battery up, away from the Steam Deck to fully separate it from all adhesive.
⚠ Don't use excessive force—try your best not to deform the battery during this process.
- If you're having trouble, repeat the heating and prying process around all edges until the battery becomes loose.

Step 21 — Remove the battery



- Remove the battery.

⚠ Don't reuse the battery after it's been removed, as doing so is a potential safety hazard. Replace it with a new battery.

- ☑ To install a replacement battery:
 - Dampen a lint-free cloth with some isopropyl alcohol (>90%) and use it to remove any remaining adhesive from the battery well. Don't use too much—avoid dripping any through [the cutouts in the frame](#).
 - Peel and discard one side of protective liners on the new adhesives and apply them to the new battery, using your old battery as a reference for where they should adhere.
 - Peel and discard the remaining side of adhesive liners. Lay the battery in place and press firmly.
- ⓘ Remember: Don't reconnect the battery connector until you've finished reassembly!

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

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 [Steam Deck answers community](#) for help.