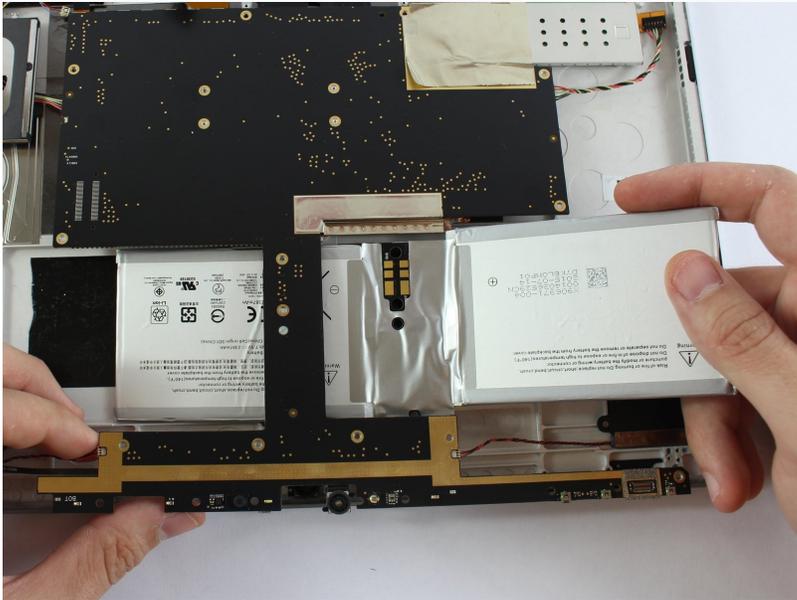




Microsoft Surface Book Battery Replacement

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 the screen (tablet section) of a Microsoft Surface Book.

To minimize risk of damage, turn off your Surface Book before starting this procedure. [If your battery looks puffy or swollen, take extra precautions.](#)

The lower/keyboard portion has its own separate battery, and replacing it requires additional instructions.

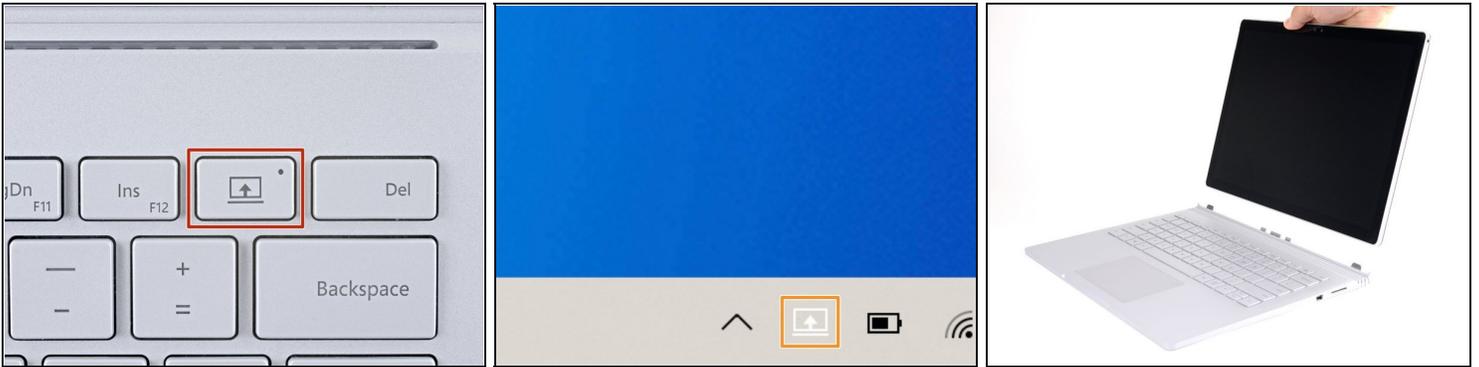
TOOLS:

[Clampy - Anti-Clamp](#) (1)
[Paper Clip](#) (1)
[iOpener](#) (1)
[iFixit Opening Picks \(Set of 6\)](#) (1)
[Suction Handle](#) (1)
[Metal Spudger](#) (1)
[Tweezers](#) (1)
[Spudger](#) (1)
[T3 Torx Screwdriver](#) (1)
[T5 Torx Screwdriver](#) (1)
[Heat Gun](#) (1)
[Hair Dryer](#) (1)

PARTS:

[Surface Book 1/2 13.5" Screen](#) (1)
[Surface Book 1/2 13.5" Tablet Battery](#) (1)

Step 1 — Remove the display with the Detach button



- ① In order for the keyboard to be detached with the Detach buttons, both batteries must be charged above 10 percent. If your device doesn't power on and you can't use the Detach buttons, skip to the next step.
- Press and hold the Detach button on the keyboard.
 - ① Once pressed, the Detach button it will light up red. After a second, it'll turn green and you'll hear an audible clicking sound.
- Alternatively, click the Detach icon on the right-hand side of the Windows 10 taskbar.
- Remove the display.

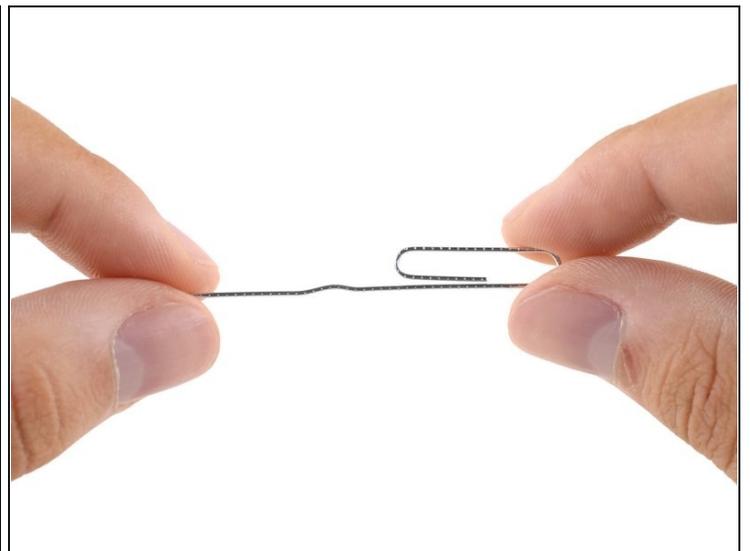
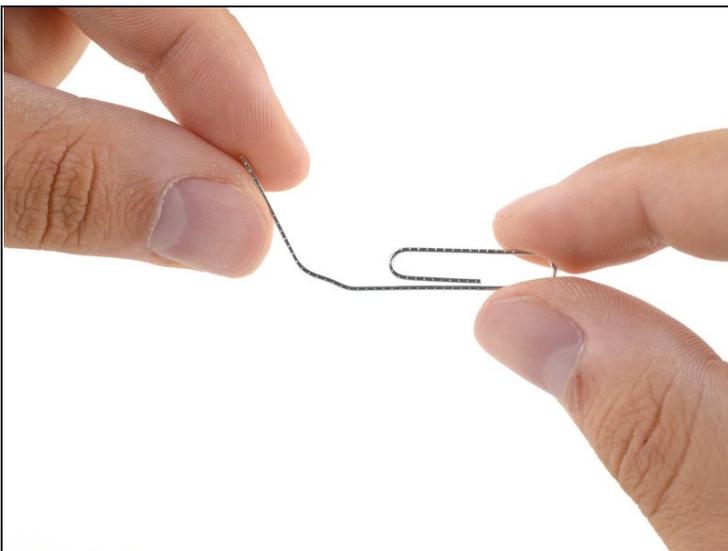
Step 2 — Manually detach the display



i The next six steps show how to detach the display manually if you're unable to power on the Surface Book.

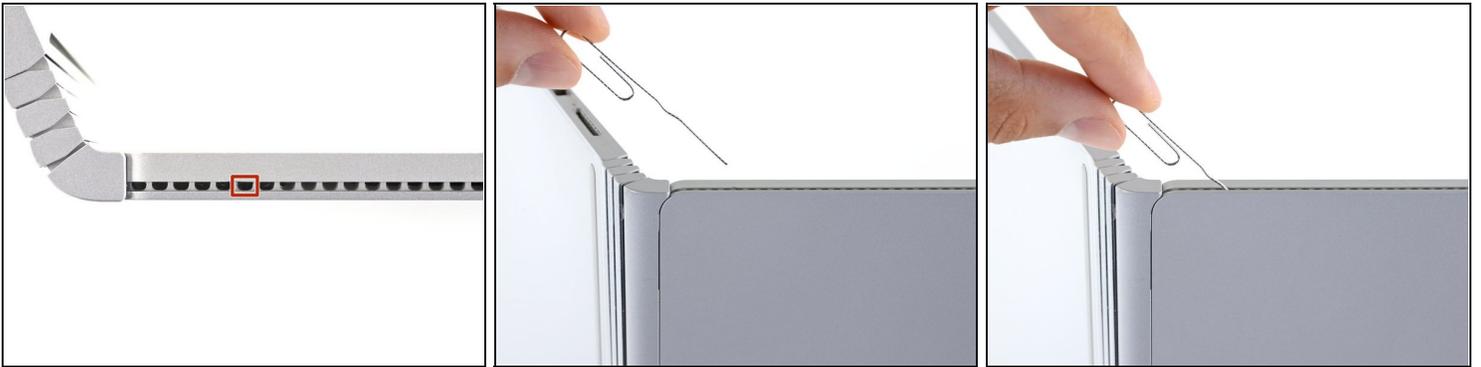
- Flip open the display as far as it will go.
- Lift the device up and place it on its side, with the display facing away from you and the SurfaceConnect port facing up.

Step 3 — Bend a paper clip



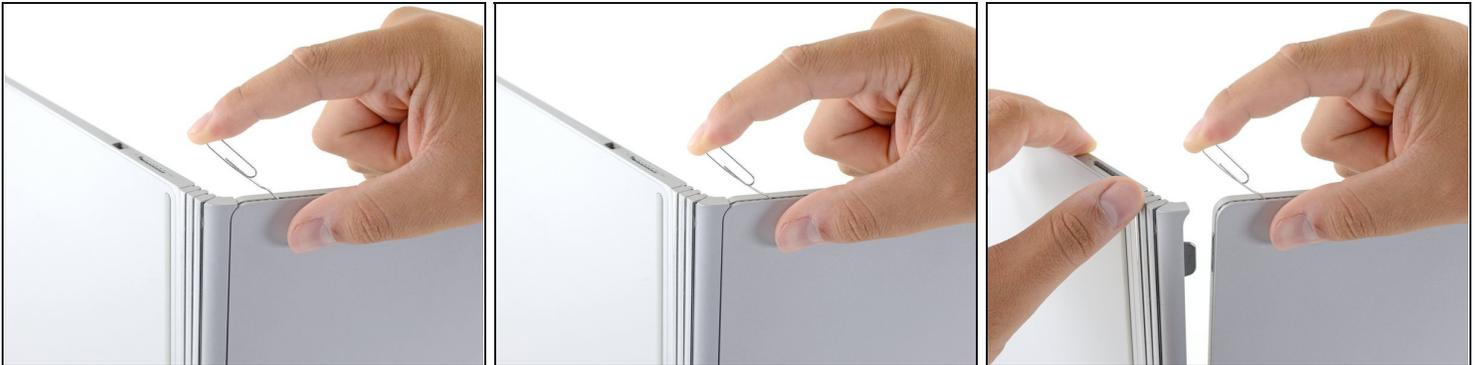
- Straighten out one section of a paper clip.

Step 4 — Push the paper clip into the hole



- ⓘ The Surface Book has an internal lever arm mechanism that can be manually actuated through an access hole in the vents on side of the display.
- Insert the straight end of the paper clip at a 45 degree angle into the **sixth hole from the left**.

Step 5 — Release the mechanism



- Firmly push the paper clip into the hole.
 - ⓘ This may take a considerable amount of force.
 - ⓘ Once the internal lever arm is fully depressed, you can disconnect the display.
- Pull the base away from the display to detach it.
- ⓘ If you are unable to detach the display from the base on this side, release pressure on the paper clip and try again.

Step 6 — Detach the second side



- ⓘ The magnetic connections are prone to snap back into place, so hold the two halves apart.
- With one side detached, pull firmly to pivot the display out to disconnect the second side.
 - ⓘ If the magnetic connection feels extra strong and the display won't detach on the second side, [keep the detached side separated](#) with a spudger, pen, or pencil, and repeat the paper clip process on the other side of the display.

Step 7 — Remove the display



- Remove the display.
- ⚠ **Completely power down your Surface Book before opening it up for any repairs.**

Step 8 — Screen



- [Heat an iOpener](#) and lay it on the bottom edge of the screen to soften the glue securing it.
- ⓘ You can also use a [hair dryer](#) or [heat gun](#), but be careful as extreme heat can damage the screen and/or battery.

Step 9 — Anti-Clamp instructions



- ① The next three steps demonstrate the [Anti-Clamp](#), a tool we designed to make the opening procedure easier. **If you aren't using the Anti-Clamp, skip down three steps for an alternate method.**
- ① For complete instructions on how to use the Anti-Clamp, [check out this guide](#).
- Pull the blue handle backwards to unlock the Anti-Clamp's arms.
- Place an object under your Surface Book so it rests level between the suction cups.
- Position the suction cups near the middle of the bottom edge—one on the front, and one on the back.
- Hold the bottom of the Anti-Clamp steady and firmly press down on the top cup to apply suction.
- ① If you find that the surface of your device is too slippery for the Anti-Clamp to hold onto, [use tape](#) to create a grippier surface.

Step 10



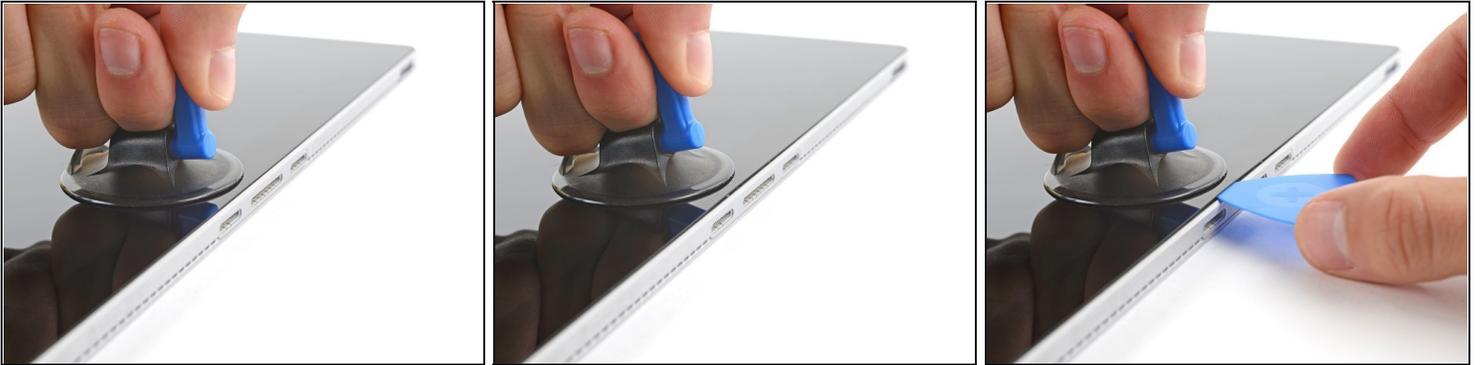
- Pull the blue handle forward to lock the arms.
- Turn the handle clockwise 360 degrees or until the cups start to stretch.
- Make sure the suction cups remain aligned with each other. If they begin to slip out of alignment, loosen the suction cups slightly and realign the arms.

Step 11



- Wait one minute to give the adhesive a chance to release and present an opening gap.
 - If your screen isn't getting hot enough, you can use a hair dryer to heat along the bottom edge.
 - ⓘ For complete instructions on how to use a hair dryer, [check out this guide](#).
 - Insert an opening pick under the screen when the Anti-Clamp creates a large enough gap.
 - ⓘ If the Anti-Clamp doesn't create a sufficient gap, apply more heat to the area and rotate the handle clockwise half a turn.
- ⚠ Don't crank more than a half a turn at a time, and wait one minute between turns. Let the Anti-Clamp and time do the work for you.**
- **Skip the next step.**

Step 12 — Insert an opening pick



- ⓘ The adhesive securing the screen is very strong. This step may take significant force and multiple attempts.
- Apply a suction handle to the screen, as close to the center of the bottom edge as possible.
- Pull up on the suction cup with strong, steady force to create a gap between the screen and the frame.
- ⓘ If you have trouble creating a gap, apply more heat to further soften the adhesive. Follow the [iOpener](#) instructions to avoid overheating.
- Insert an opening pick into the gap.

Step 13

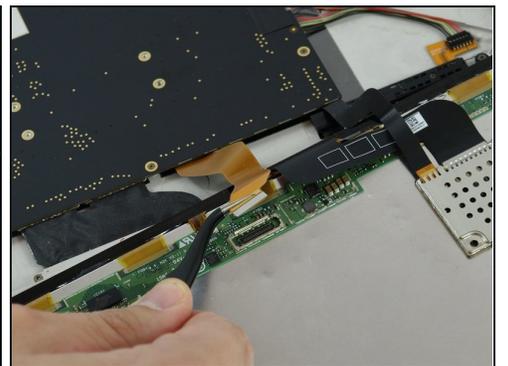
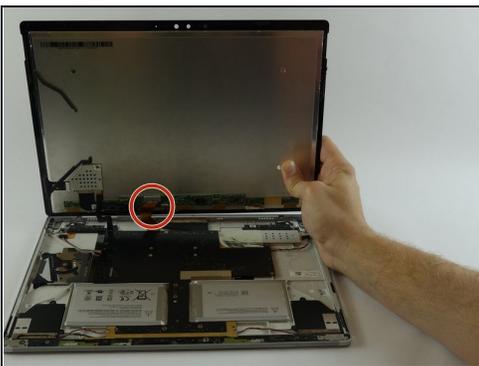


- Use the pick to slice all the way around the perimeter of the screen to separate the glue.

⚠ Do not insert the opening pick too far into the screen or you may cause damage to internal components.

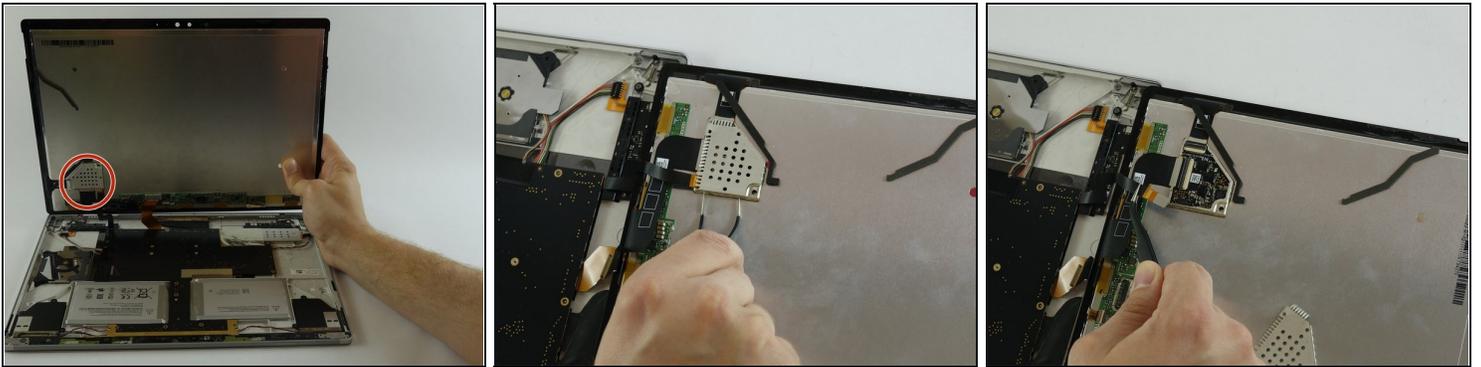
- Gently raise the screen but don't fully detach it until the cables underneath are disconnected.

Step 14



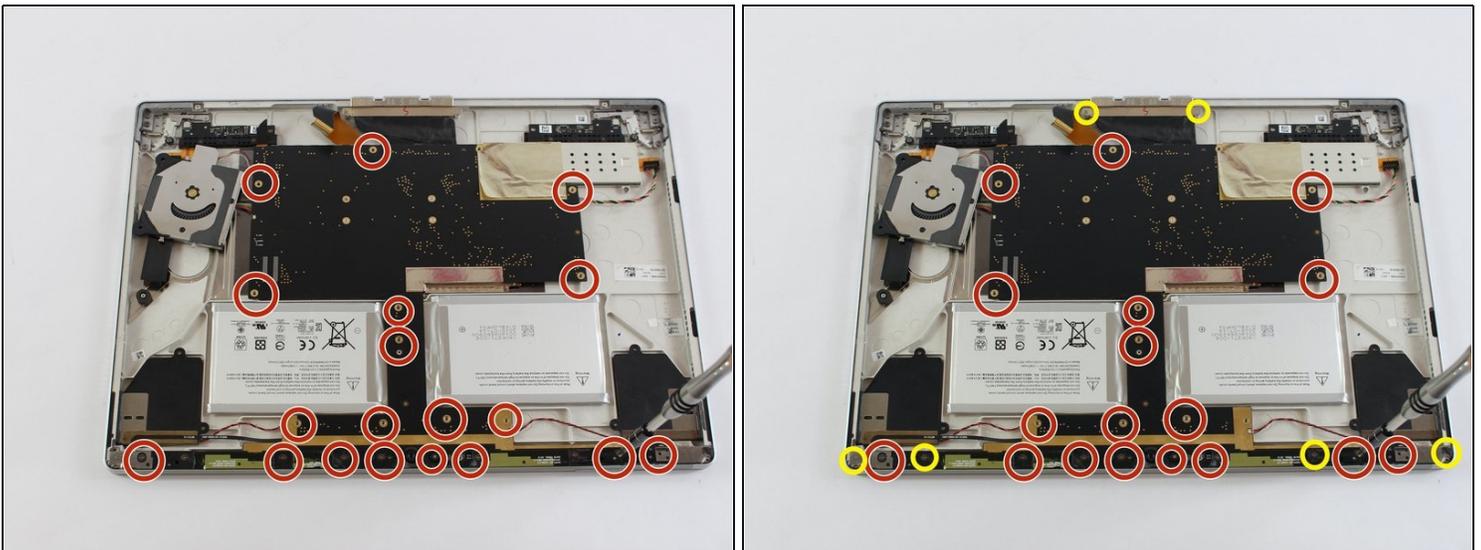
- Begin by removing the ribbon on the right. With the curved [tweezers](#), carefully remove the metal bracket to expose the end of the ribbon. Remove ribbon.

Step 15



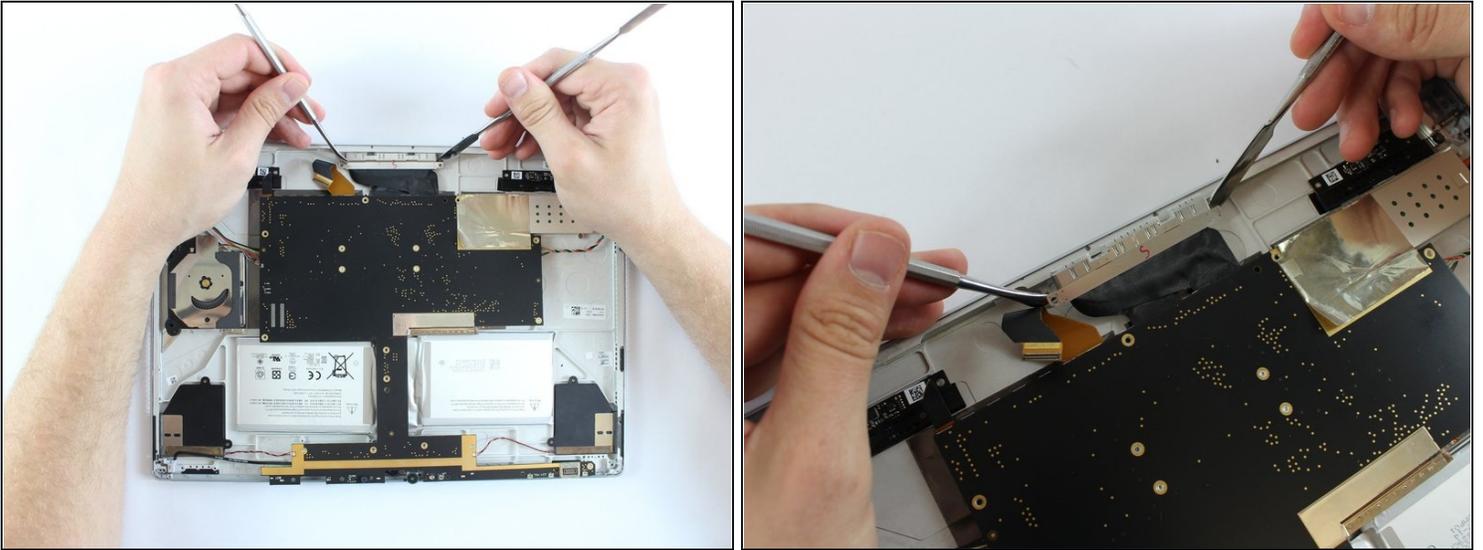
- Next, remove the metal shield covering the other ribbon. Then remove the ribbon.
- Remove the screen.

Step 16 — Battery



- Use a T4 Torx driver to remove the 24 screws. The two tiny screws on the ends of the WiFi board/Camera bracket are T3 Torx.
- ⓘ You don't need to remove the screw along the plastic piece that contains the camera lenses. Remove the two screws at either end of the keyboard connector.

Step 17

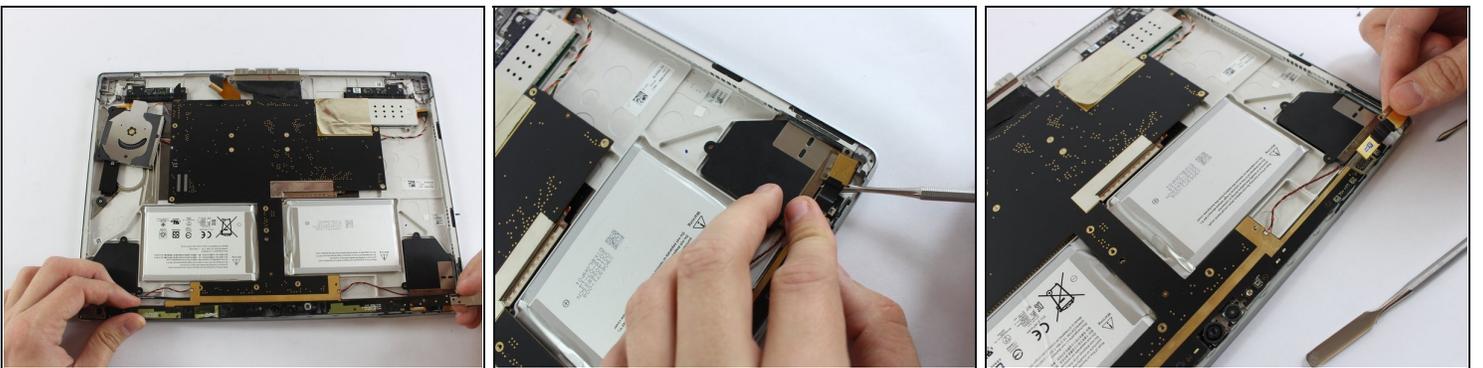


- Next, using a metal spudger, disconnect the ribbon from the charging port.

⚠ Ensure that you gently remove the ribbon.

i This should be optional and only necessary if the battery has swollen to the point that more clearance from the motherboard is needed to remove.

Step 18



- Remove the black plastic strip.
- Then use a metal spudger to remove the ribbon under the black strip.

⚠ Make sure that you gently remove the ribbon.

Step 19



- Gently raise the motherboard slightly.

⚠ Don't manhandle the motherboard.

- Use a plastic spudger to gently pry the battery. The battery runs underneath the motherboard. Pull free to the right.

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.

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.