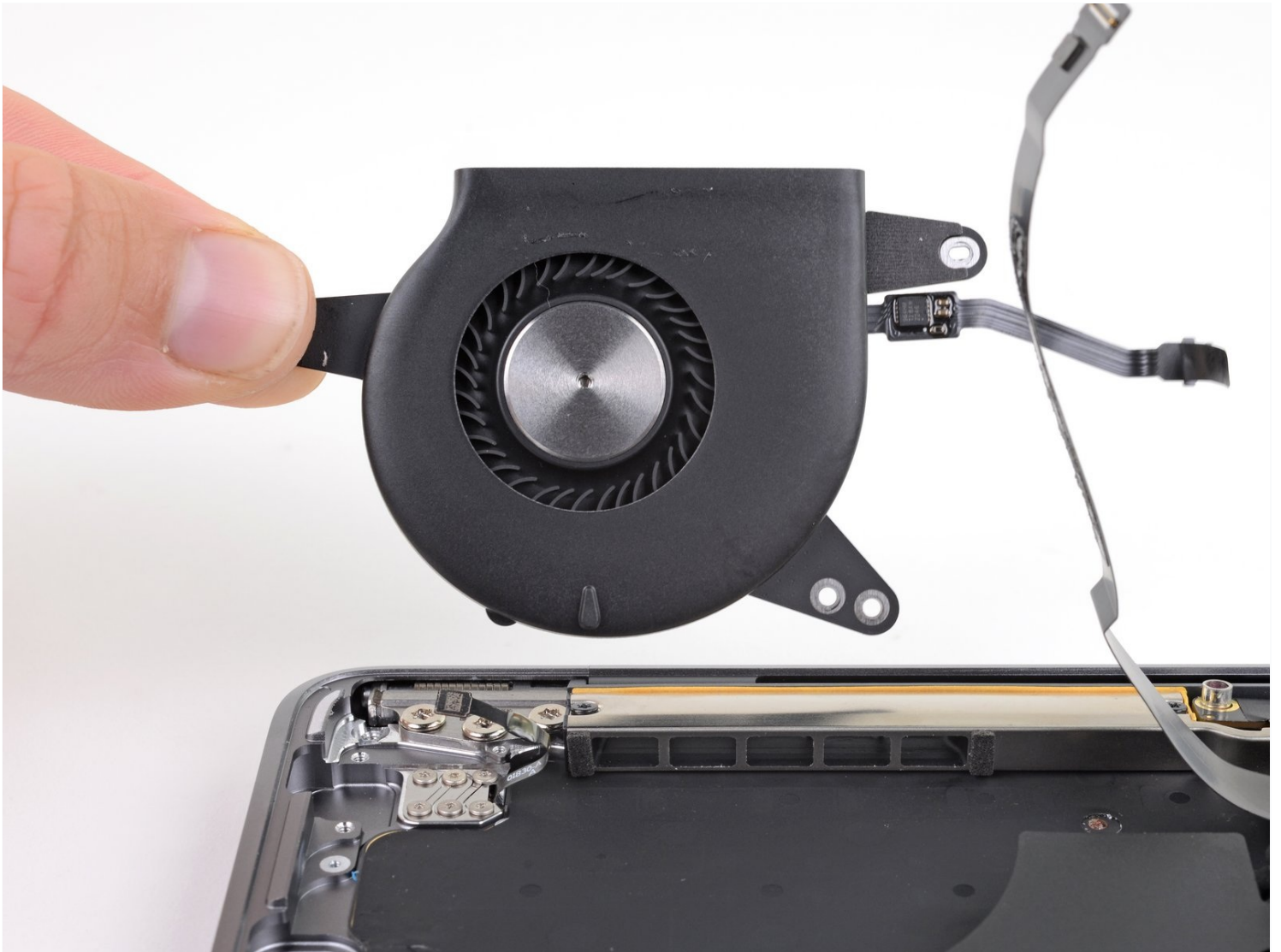




MacBook Air 13" Retina Display 2019 Fan Replacement

Use this guide to replace the fan in a 2019...

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INTRODUCTION

Use this guide to replace the fan in a 2019 MacBook Air.

TOOLS:

[T4 Torx Screwdriver](#) (1)
[P5 Pentalobe Screwdriver](#) [Retina MacBook Pro and Air](#) (1)
[Tweezers](#) (1)
[Spudger](#) (1)
[T5 Torx Screwdriver](#) (1)

PARTS:

[MacBook Air 13" \(Late 2018-Early 2020\)](#)
[Fan](#) (1)

Step 1 — Remove the screws securing the lower case



- i** Before starting this procedure, you should disable your Mac's **Auto Boot** feature. Auto Boot powers on your Mac when you open the lid, and may be accidentally triggered during disassembly. [Use this guide](#) to disable Auto Boot.
- If your MacBook is running Big Sur v11.1 or later, disabling Auto Boot may not work. You can proceed normally, but make sure to disconnect the battery as soon as you're inside.

⚠ Completely power off and unplug your MacBook Air before you start. Close the display and flip the entire laptop upside-down.

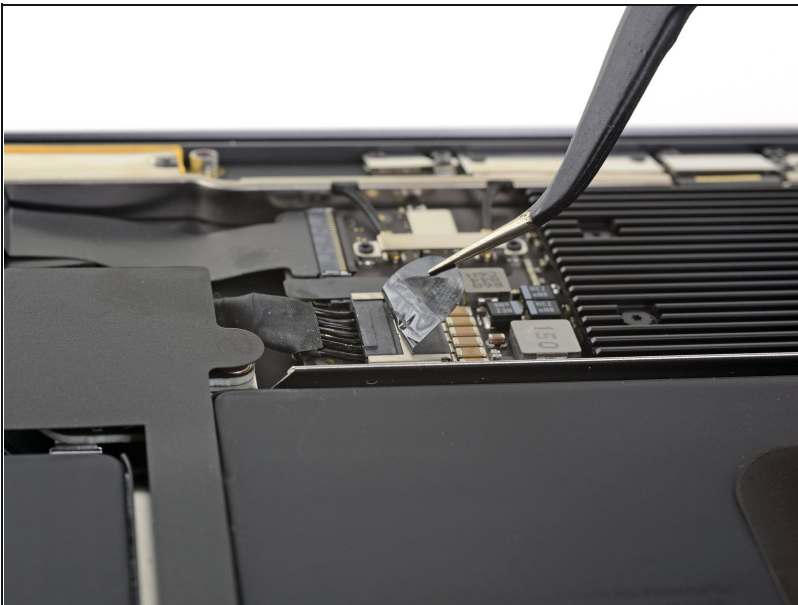
- Use a P5 driver to remove the following screws:
 - Two 7.9 mm screws
 - Two 7.1 mm screws
 - Six 2.6 mm screws

Step 2 — Remove the lower case



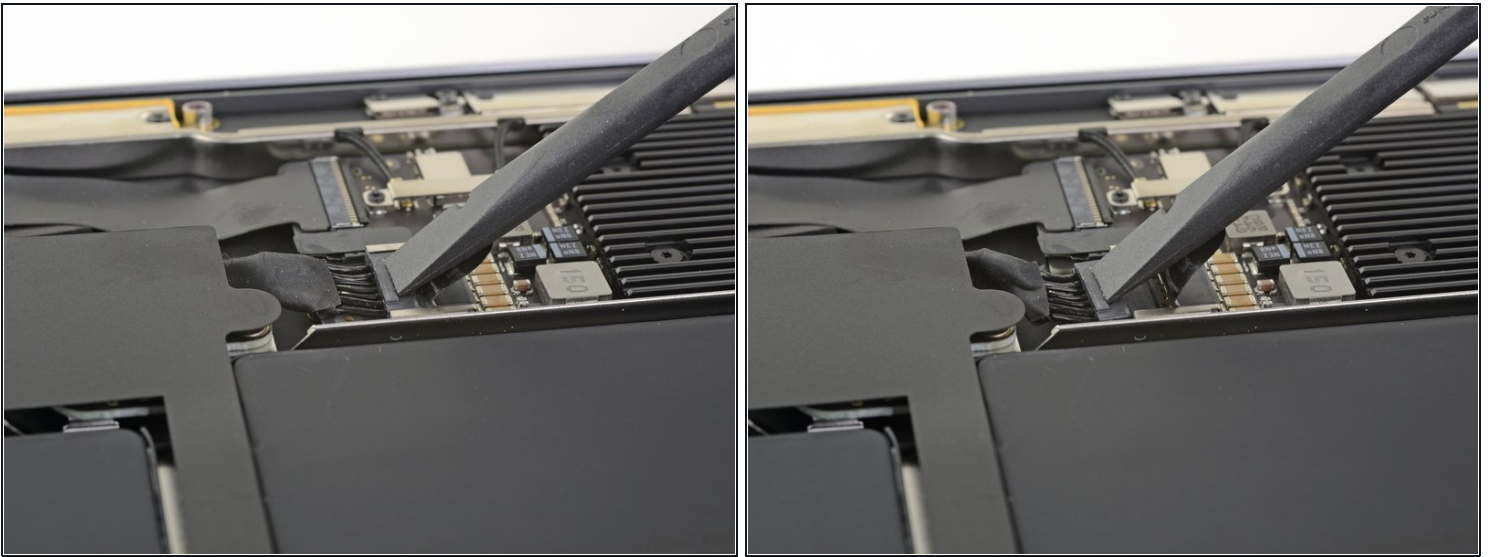
- Wedge your fingers between the display and the lower case and pull upward to pop the lower case off the Air.
- Remove the lower case.
- ★ After reassembly, your MacBook might not turn on until it's connected to a power source (a low power phone charger may work). To test your repair, plug in your charger, allow two minutes for your MacBook to turn on, and check that everything works as expected.

Step 3 — Disconnect the battery



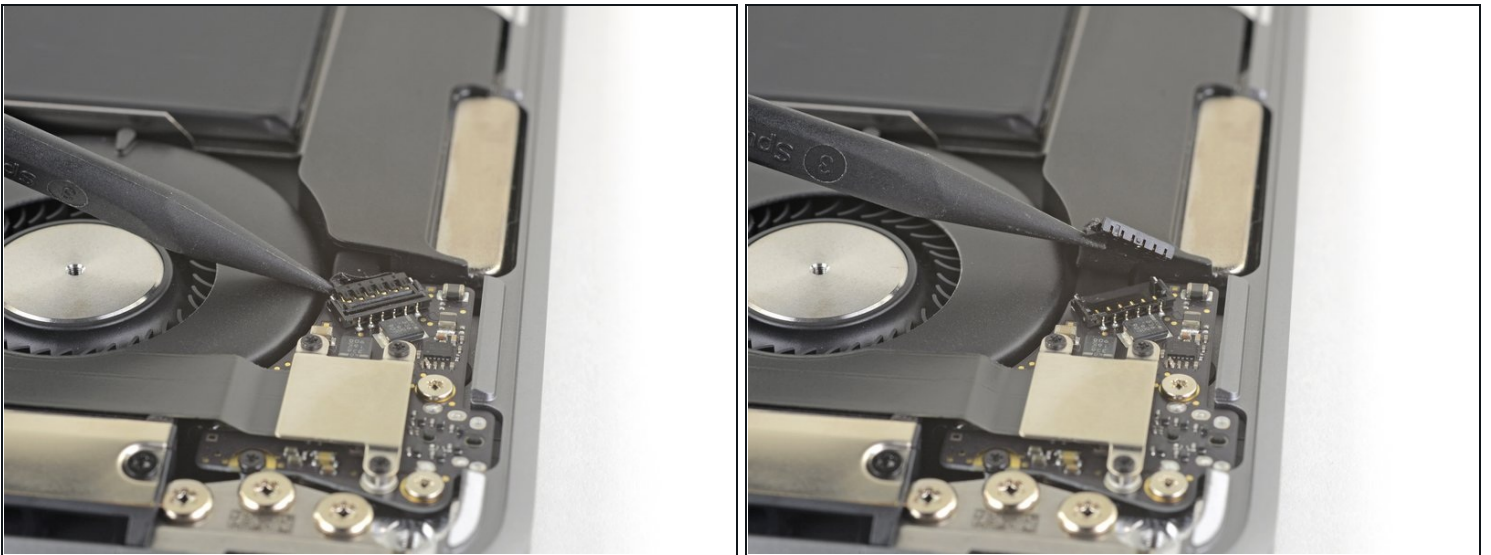
- Peel back the tape covering the battery connector enough to reveal the connector underneath.

Step 4



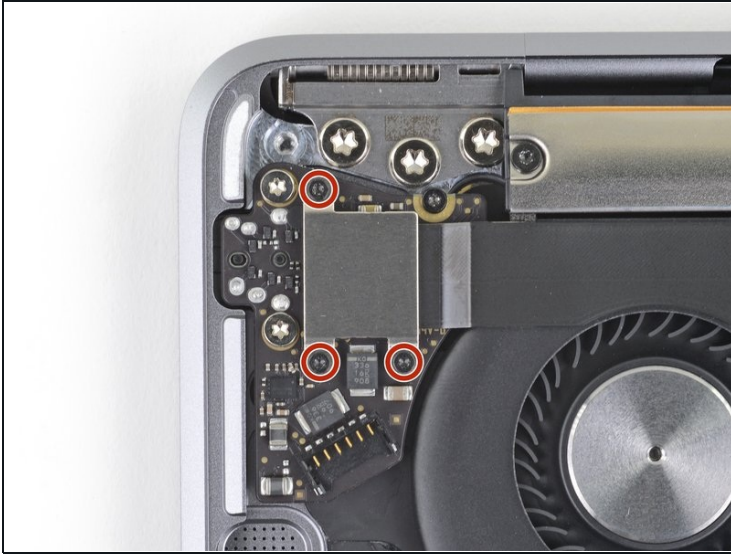
- Use a spudger to slide the battery connector parallel to the logic board and out of its socket on the logic board.

Step 5 — Disconnect the right speaker



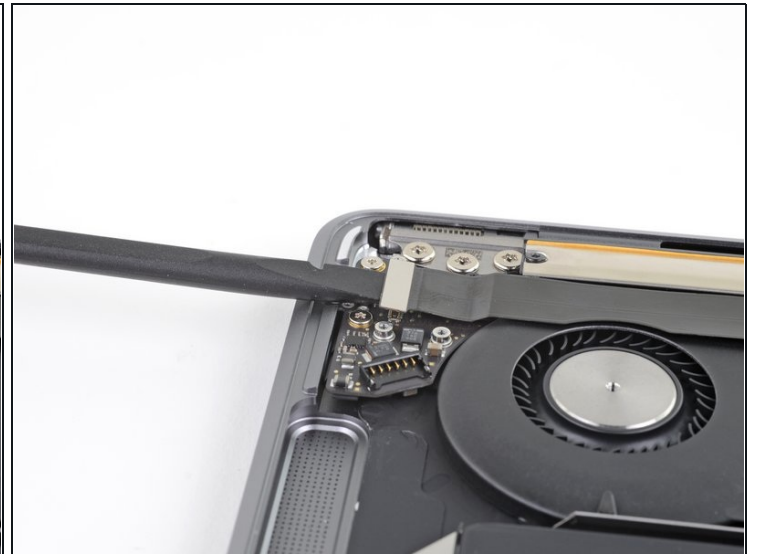
- Slide the tip of a spudger underneath the speaker cable and pry straight up to disconnect the speaker.

Step 6 — Disconnect the audio board



- Use a T3 Torx driver to remove the three 1.4 mm screws securing the audio board cable bracket.
- Remove the cable bracket.

Step 7



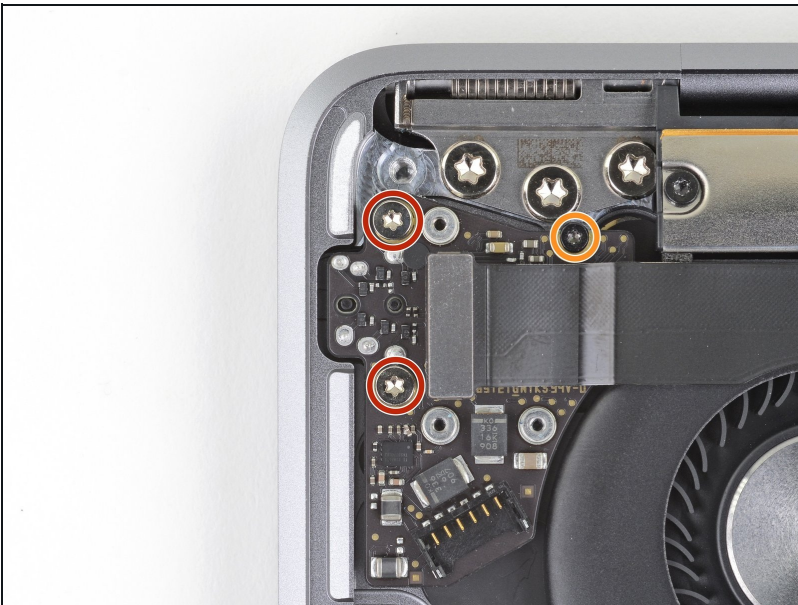
- Use the flat end of a spudger to pry the audio board connector straight up and disconnect it.

Step 8



- Use the flat end of a spudger to pry the Touch ID sensor connector straight up and disconnect it.

Step 9 — Remove the audio board



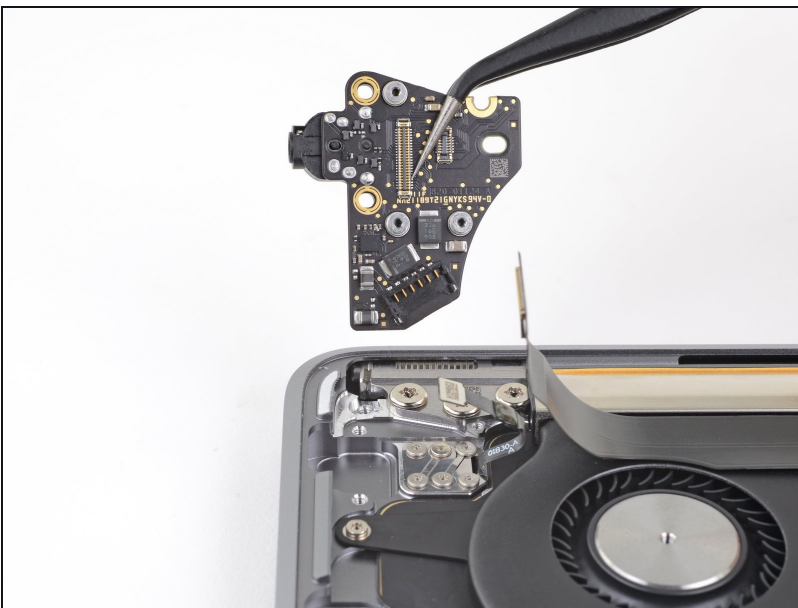
- Remove the following screws:
 - Two 4.3 mm, T5 Torx screws
 - One 2.4 mm, T3 Torx screw

Step 10



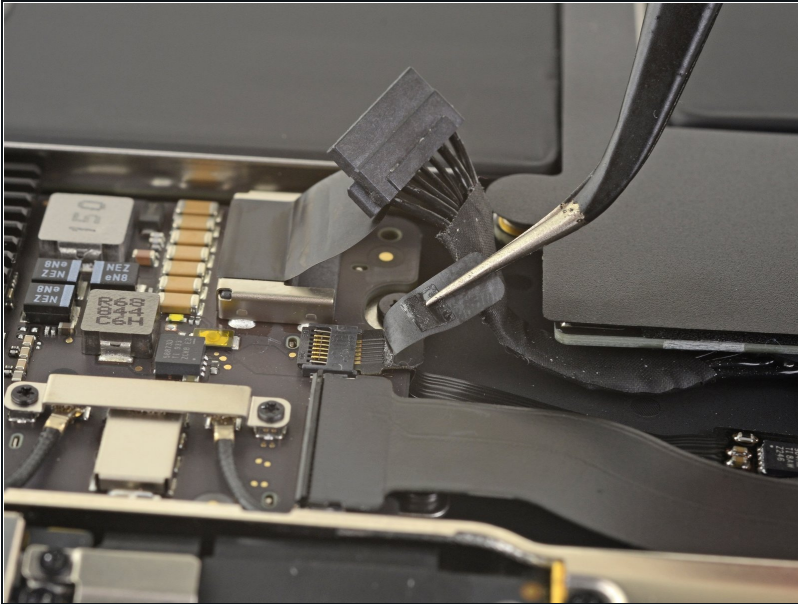
- Slide the flat end of a spudger underneath the Touch ID sensor cable to slice through the adhesive securing it to the audio board.

Step 11



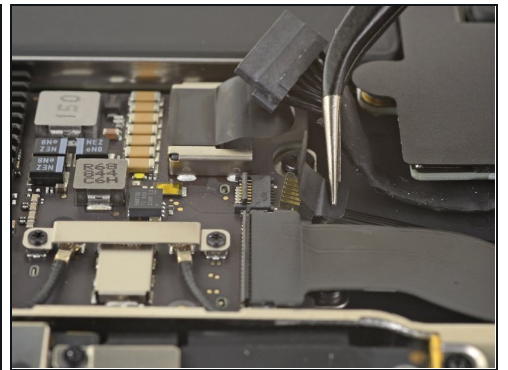
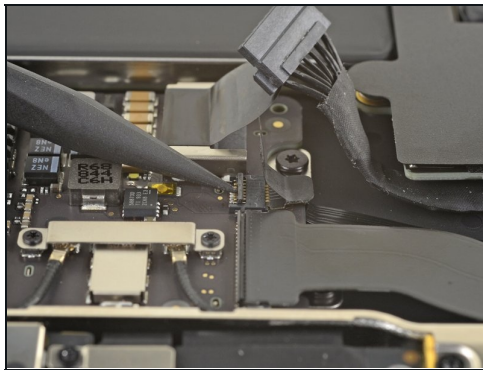
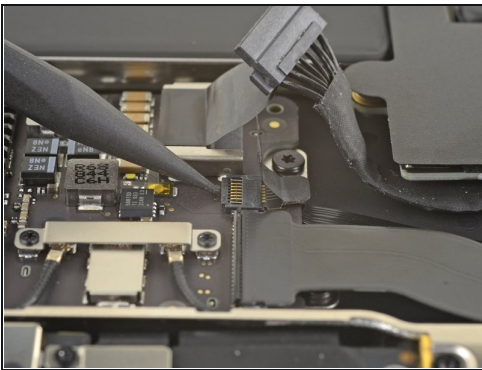
- Remove the audio board.

Step 12 — Disconnect the fan



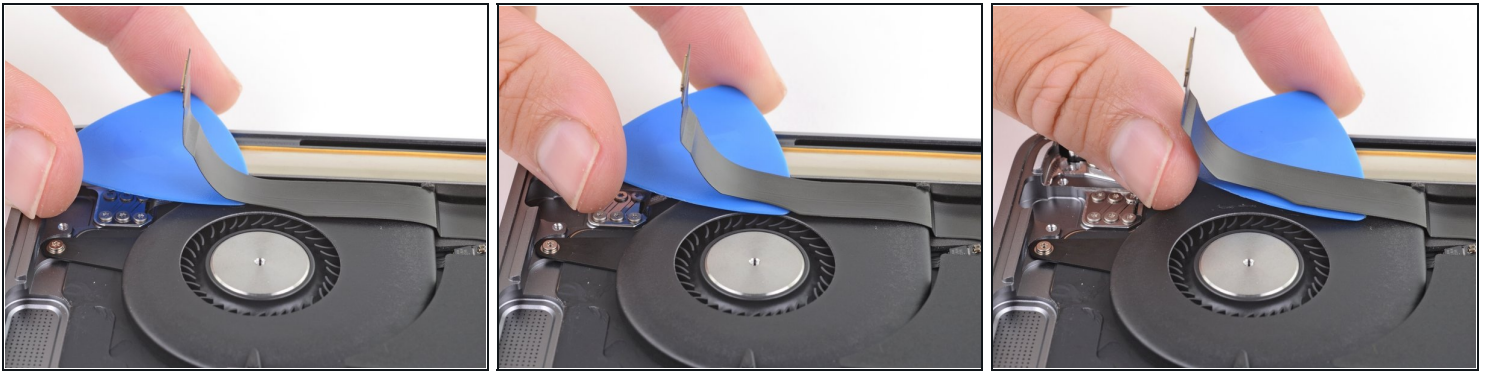
- Peel back the black tape covering the fan cable connector.

Step 13



- Use the tip of a spudger to lift up the locking flap on the fan cable's ZIF connector.
- Slide the fan cable out of the ZIF connector.

Step 14 — Separate the audio board cable



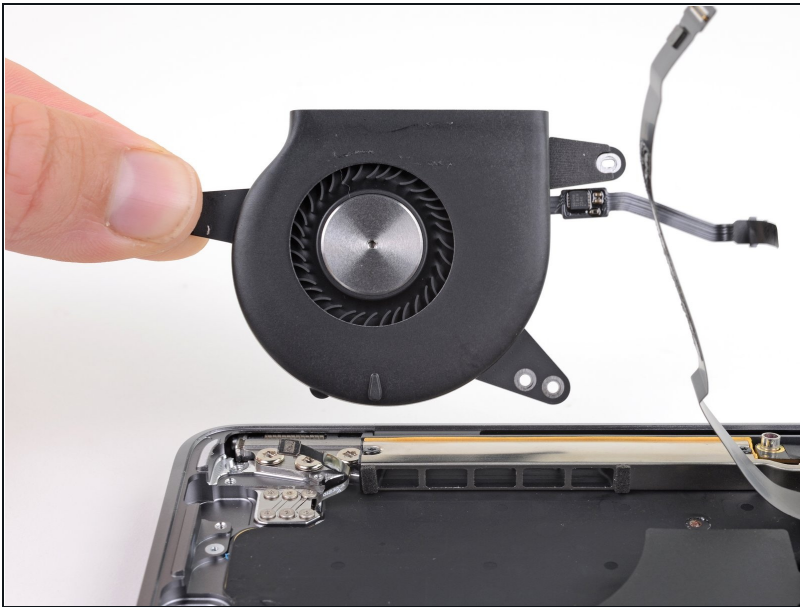
- Slide an opening pick under the audio board cable to slice through the adhesive securing it to the fan.

Step 15 — Remove the fan



- Use a T5 Torx driver to remove the three 2.7 mm screws securing the fan.

Step 16



- Lift the fan out of the case and remove it.

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.