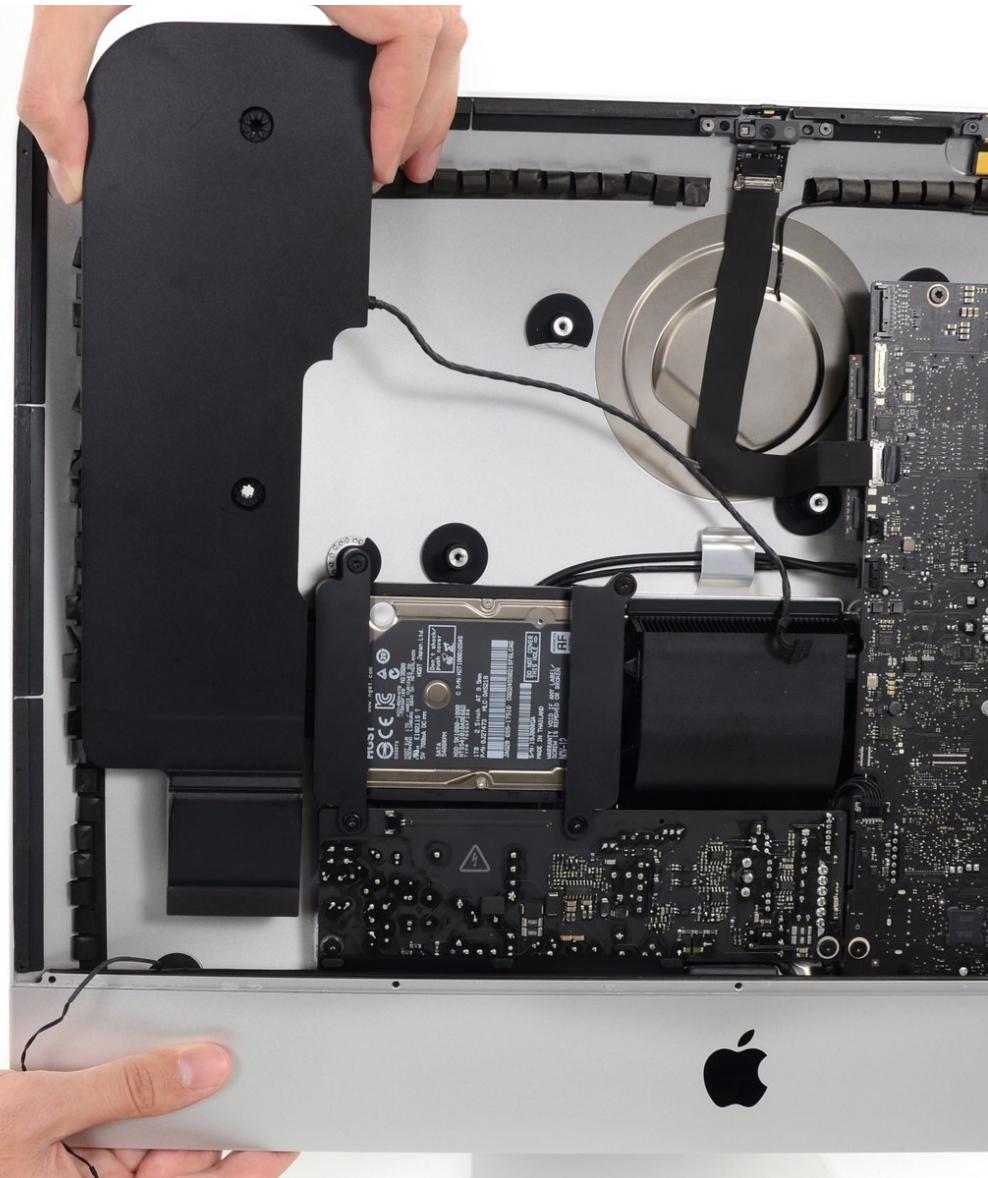




iMac Intel 21.5" EMC 2638 Left Speaker Replacement

Replace the Left Speaker in your iMac Intel 21.5" EMC 2638.

Written By: Sam Goldheart



INTRODUCTION

Use this guide to replace the left speaker.

TOOLS:

- Tweezers (1)
- Phillips #0 Screwdriver (1)
- iMac Opening Tool (1)
- Plastic Cards (1)
- Spudger (1)
- T10 Torx Screwdriver (1)

PARTS:

- iMac 21.5" (Late 2012 - Mid 2017) Left Speaker (1)
- iMac Intel 21.5" (2012-2017) Adhesive Strips (1)

Step 1 — Display Assembly

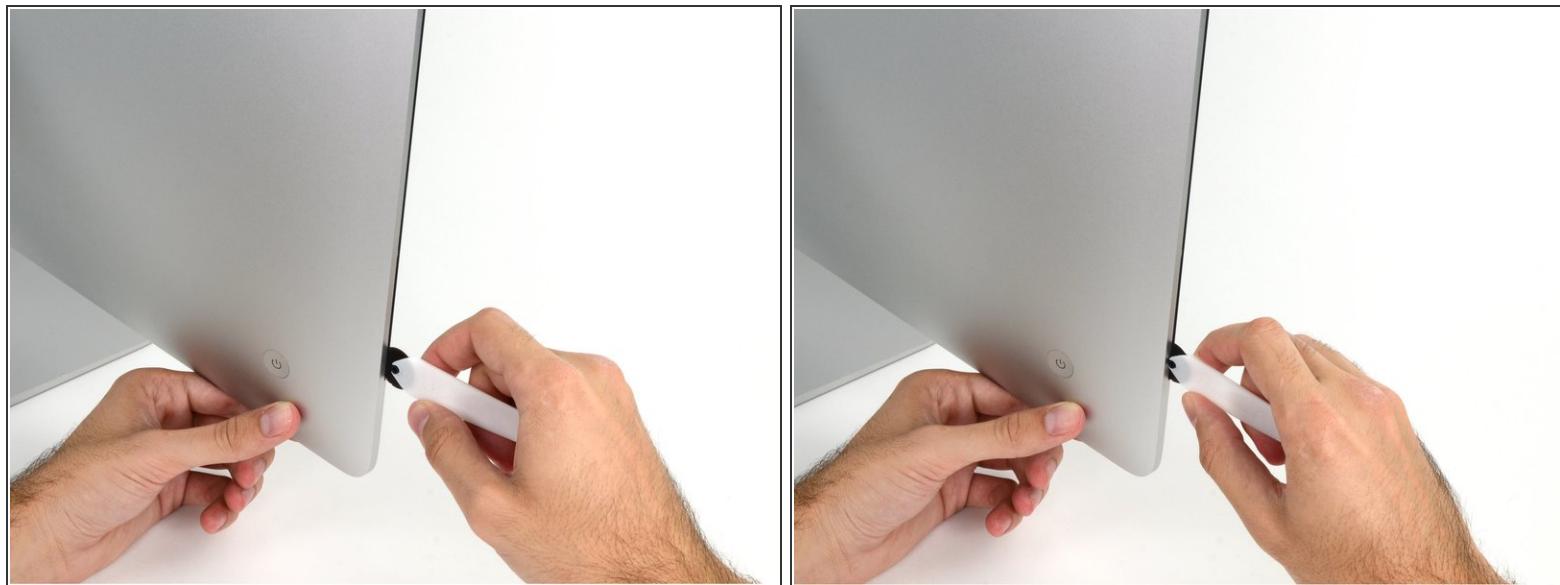


i With the hinge free to move, the iMac will be unbalanced and hard to work on. Repairs are fast and easy with an [iMac service wedge](#), but can be completed without one.

- **Before beginning any work on your iMac:** Unplug the computer and press and hold the power button for ten seconds to discharge the power supply's capacitors.

⚠ **Be very careful** not to touch the capacitor leads or any exposed solder joints on the back of the power supply. Only handle the board by the edges.

Step 2



- Starting on the left of the display, near the power button, insert the iMac Opening Tool into the gap between the glass panel and the rear enclosure.

⚠ The hub on the iMac Opening Tool will keep you from pushing the wheel in too far. If using a different tool, insert no more than 3/8" into the display. Otherwise, you risk severing antenna cables and causing serious damage.

Step 3



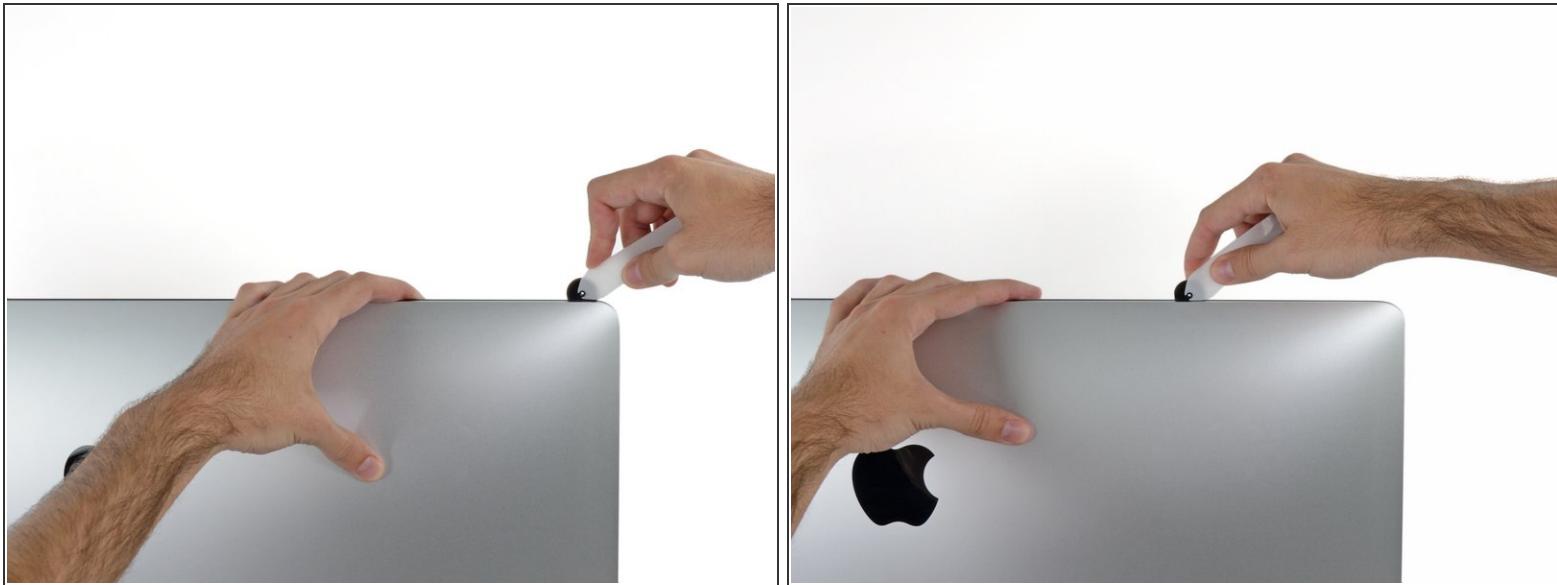
- Use the tool like a pizza cutter—roll it along through the gap, and it will cut the foam adhesive through the center.
- Be sure to always push with the handle behind the cutting wheel. If you pull, the wheel might get pulled out of the handle.
- Run the tool up along the left side of the display.

Step 4



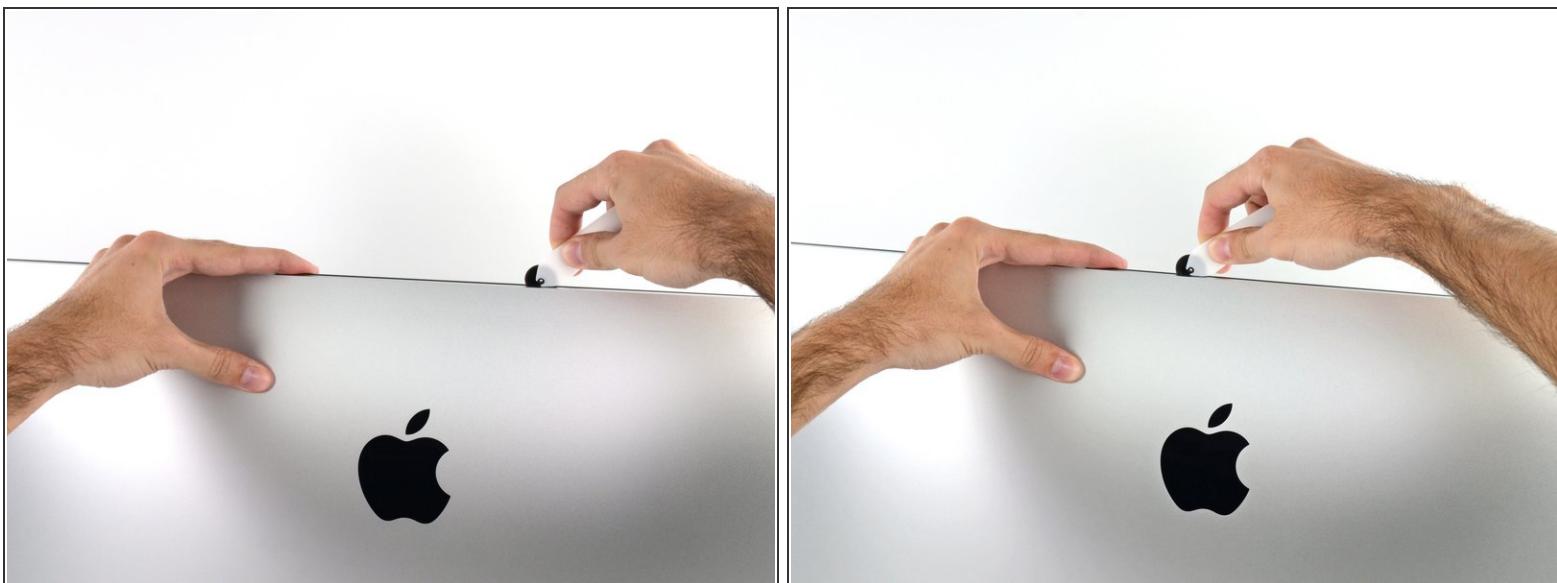
- Continue running the tool up around the top left corner.

Step 5



- Cut the adhesive along the top left of the display.

Step 6



- Continue along the top of the display.

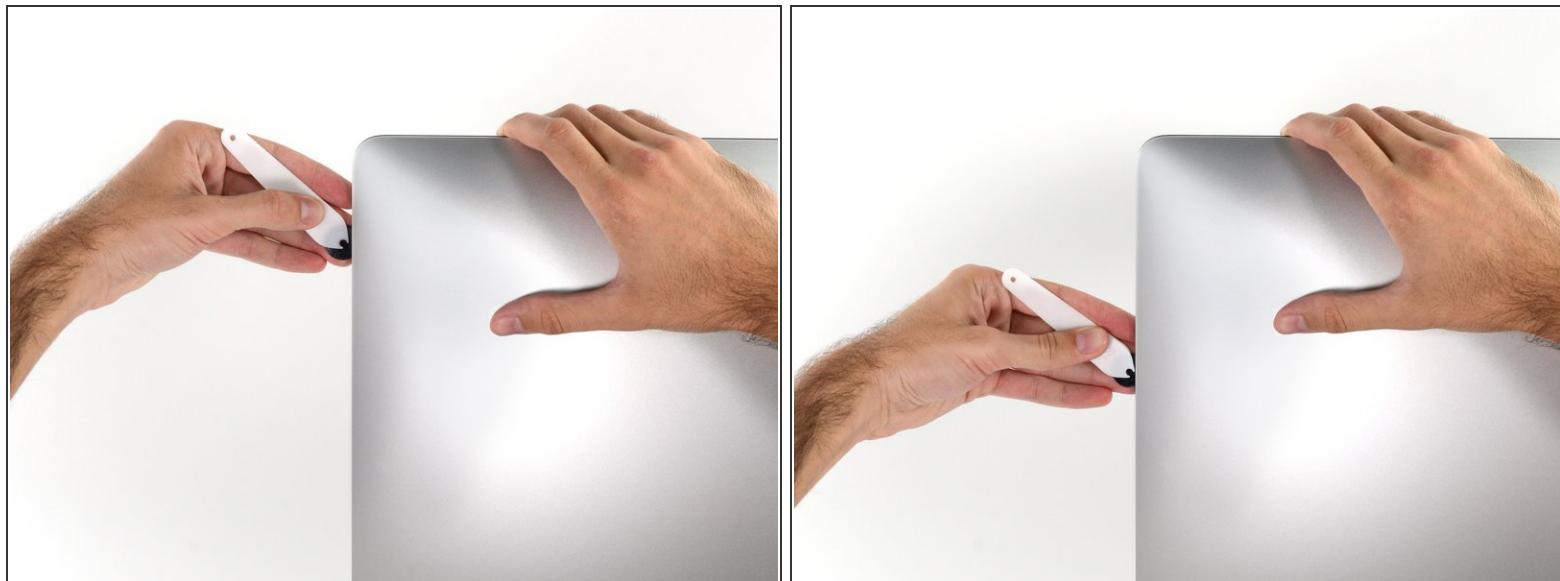
(i) You may want to run the tool back and forth through what you've already cut a few times, to ensure you get as much of the adhesive separated as possible.

Step 7



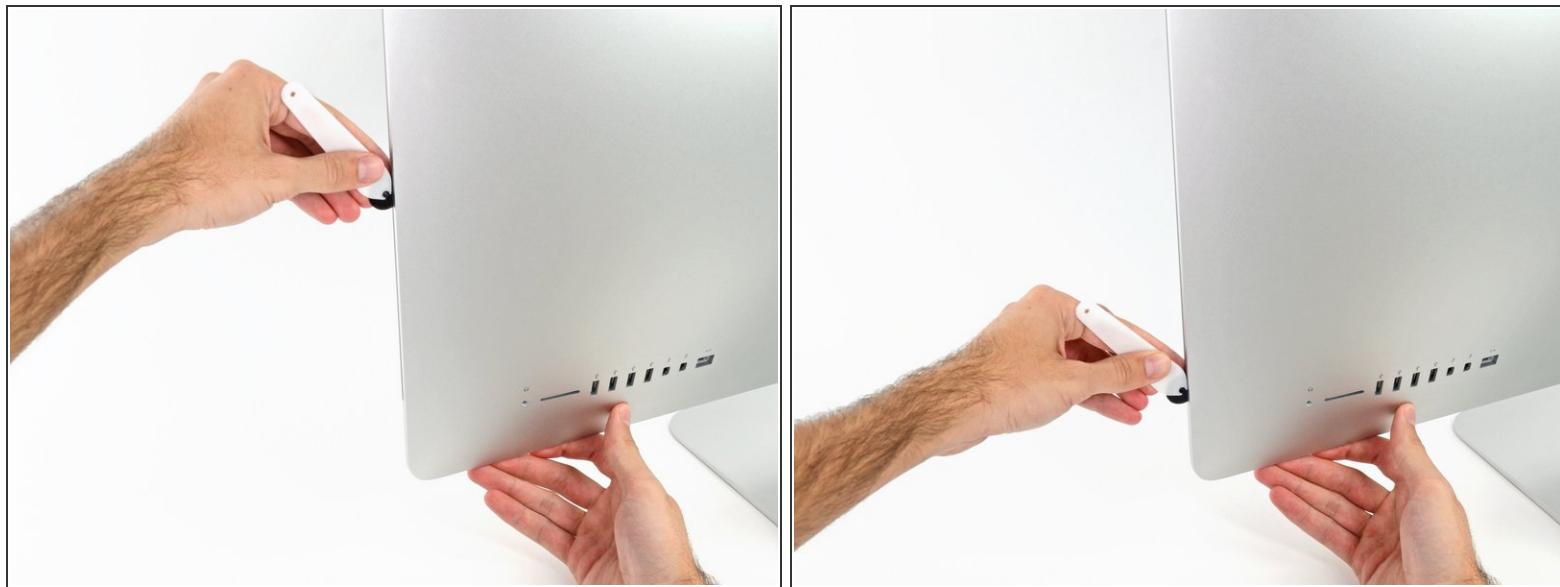
- Push the tool around the top right corner of the display.

Step 8



- Wheel the tool down along the right side of the display.

Step 9



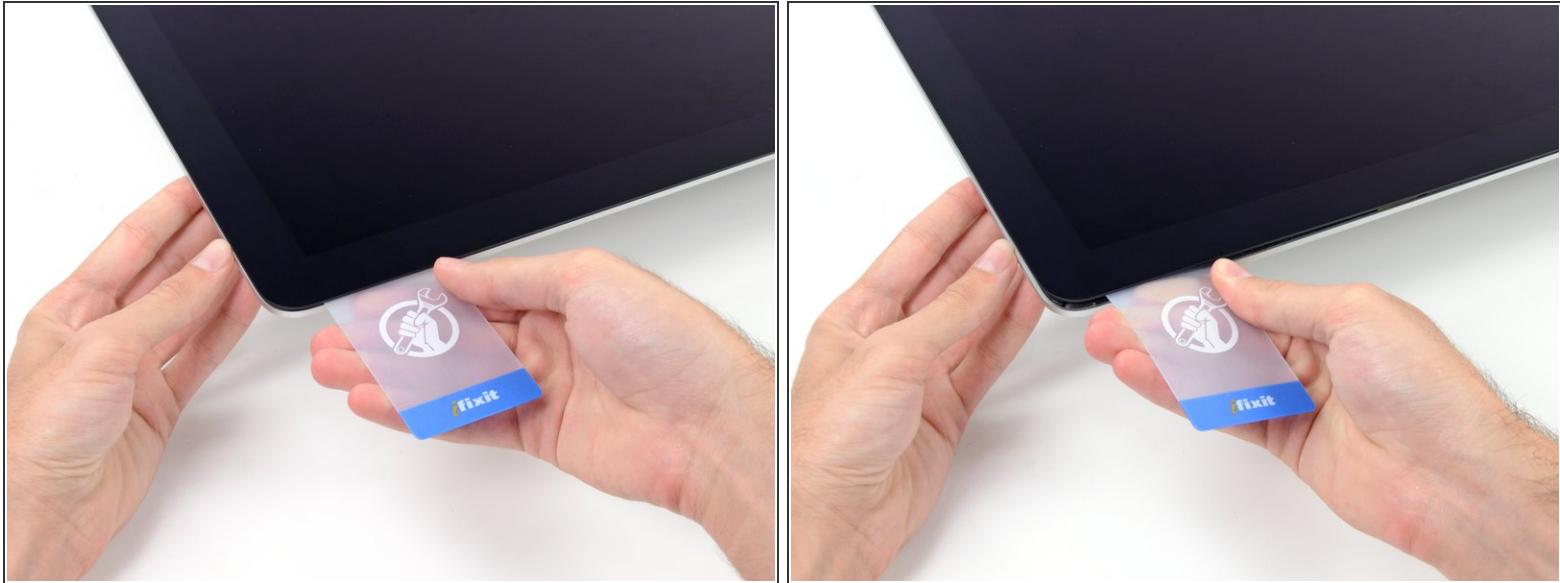
- Finish pushing the opening tool to the bottom of the right side of the display.
- At this point, you'll want to run the tool back around the entire display, to ensure you cut as much adhesive as possible.

Step 10



- ⓘ While the opening tool cut most of the adhesive, the display will still be slightly adhered to the case. A plastic card will be necessary to free up the last of this adhesive.
- ⚡ Set the iMac face-up on a table.
 - Starting from the top right corner of the iMac, wedge a plastic card between the display and frame.
- ! Be careful **not** to insert the plastic card more than 3/8", or you may damage internal components.

Step 11



- Gently twist the plastic card sideways to create a gap between the display and frame.
- Move slowly and be careful not to stress the display glass too much—you only need to make a gap of about 1/4".

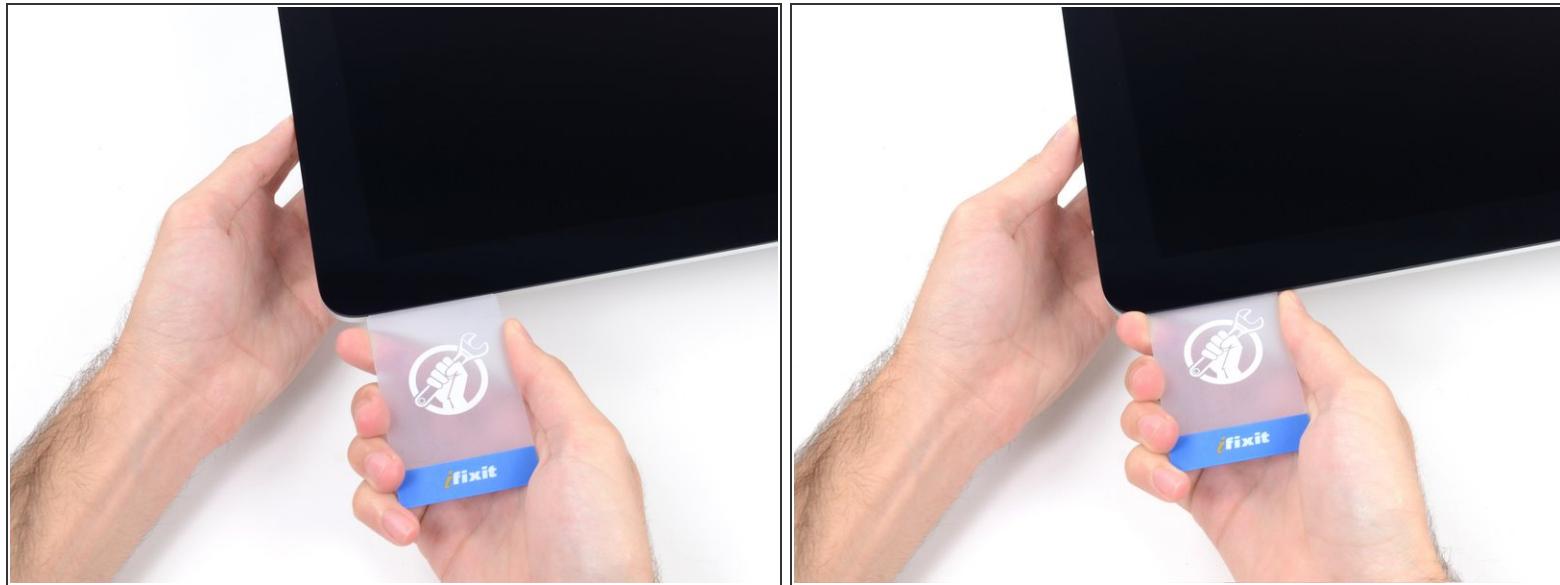
Step 12



- Slide the card toward the center of the display to cut any of the remaining adhesive along the top right corner of the iMac.

 Be sure to **stop** before the iSight camera, or you may damage it.

Step 13



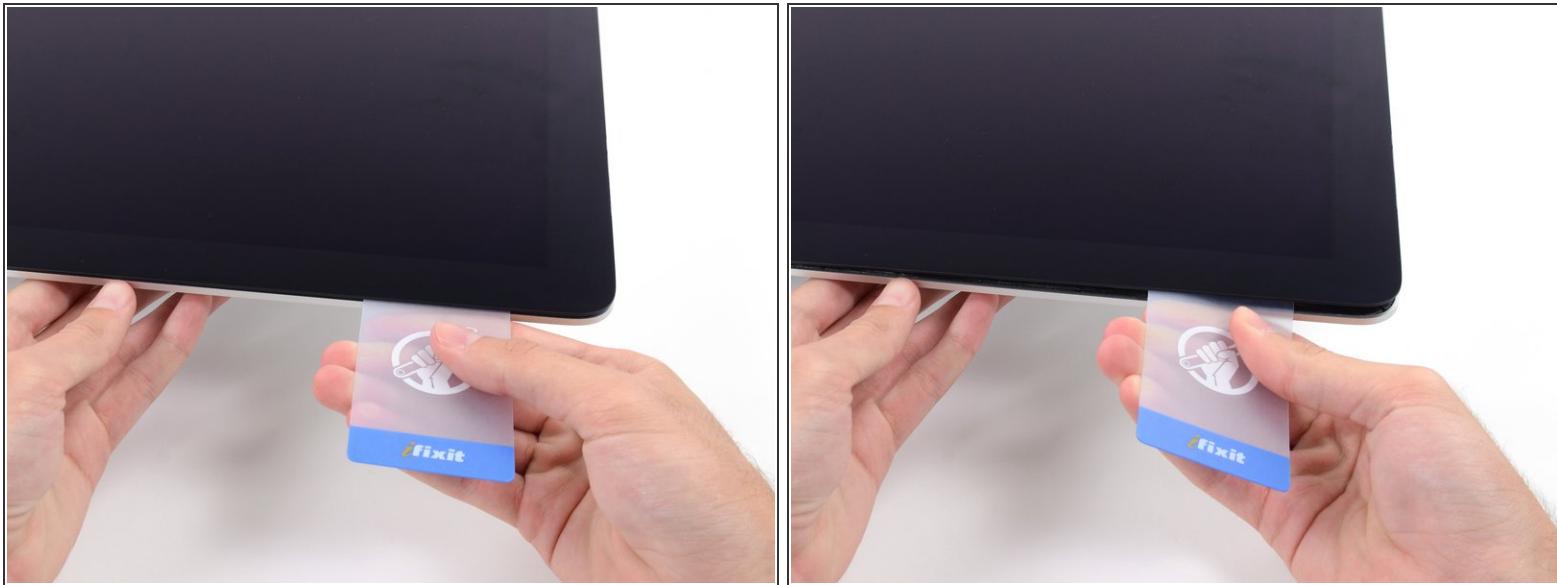
- Wedge the plastic card into the top right corner once again, and leave it there to prevent the adhesive from resticking.

Step 14



- Insert a second plastic card into the gap between the display and frame near the top left corner of the iMac.

Step 15



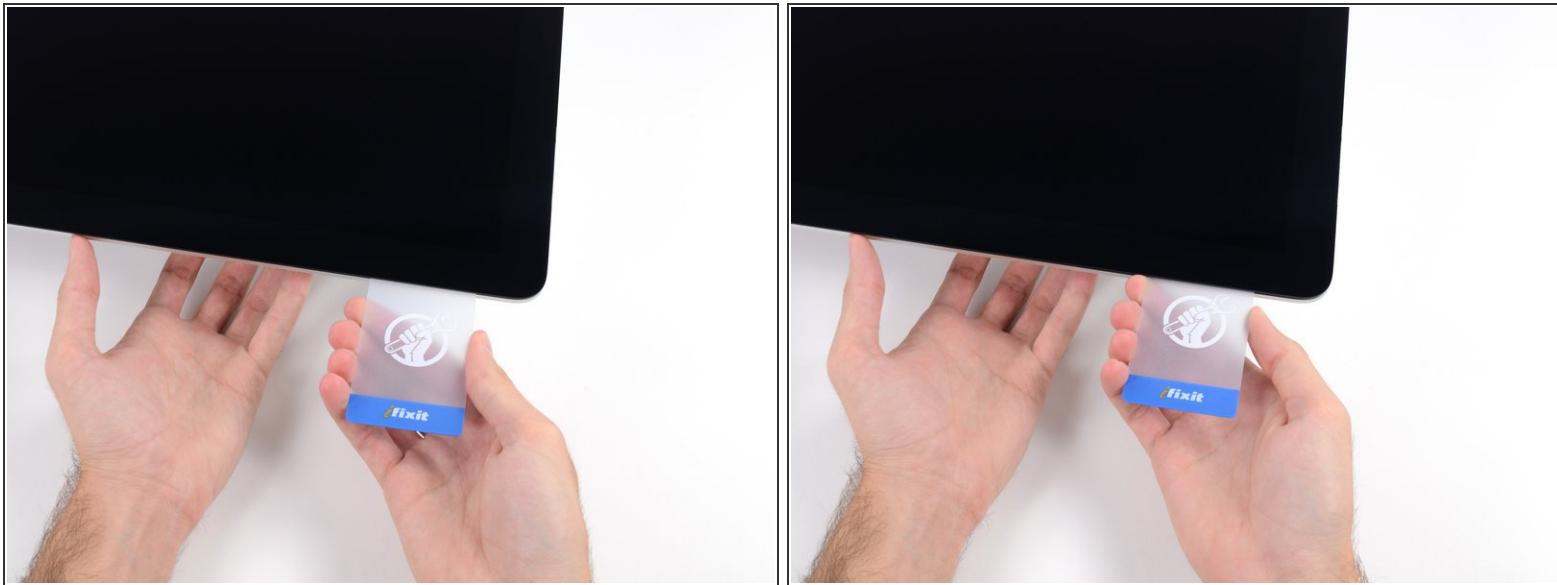
- Gently twist the card upward, slightly increasing the space between the display and frame.
- As with the other side, twist slowly to allow the adhesive time to separate, and be careful not to over-stress the display glass.

Step 16



- Slide the plastic card toward the center, again stopping just before the iSight camera.

Step 17



- Wedge the plastic card back into the top left corner.

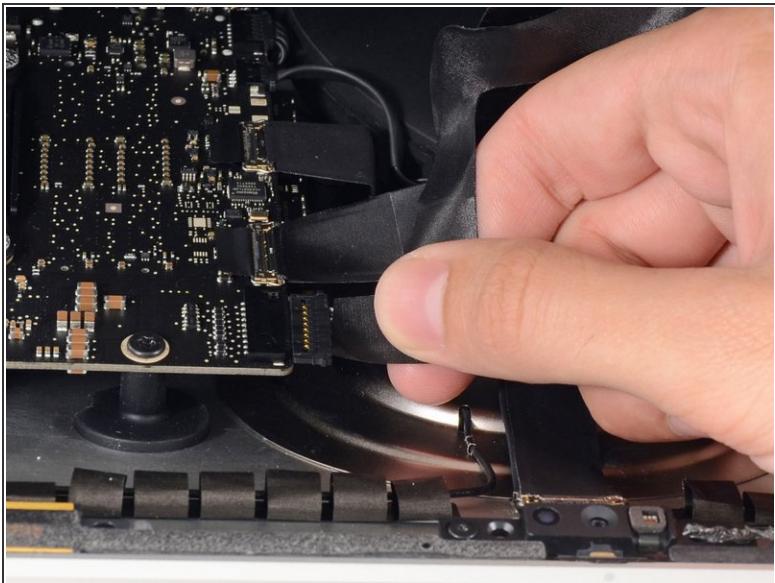
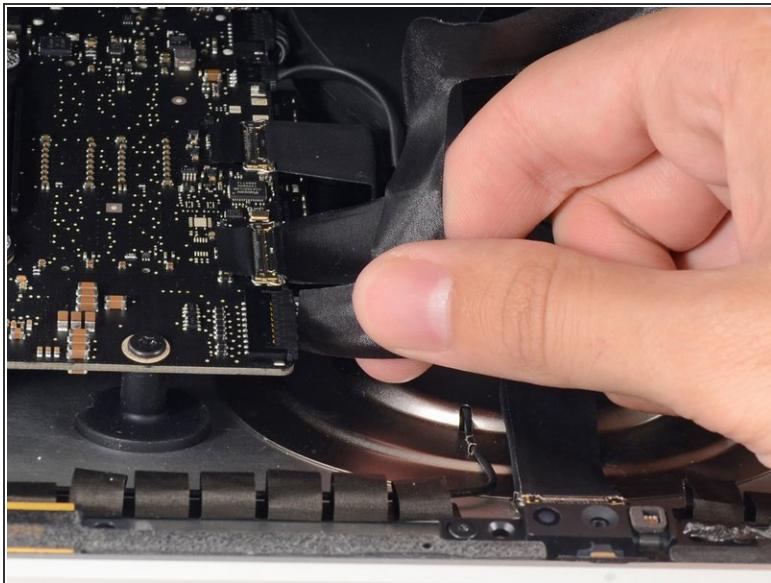
Step 18



- With both plastic cards inserted as shown near the corners, gently twist the cards sideways to increase the gap between display and case.
- If there are any sections that seem to stick and won't separate, stop twisting and use one of the cards to cut the remaining adhesive.
- Begin to lift the top of the display up from the frame.

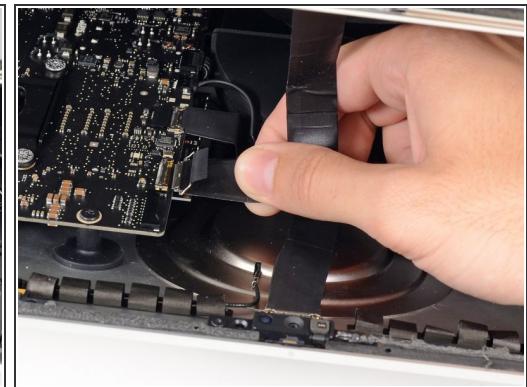
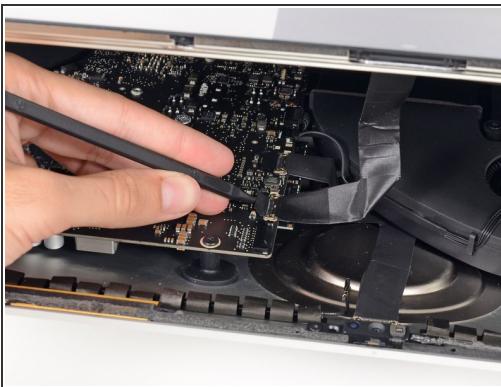
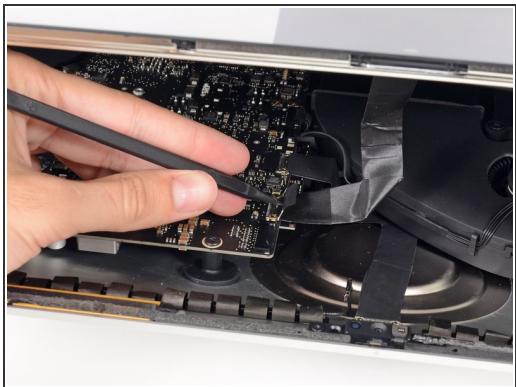
⚠ Only lift the display a few inches—the display data and power cables are still connected to the logic board.

Step 19 — Display



- While holding the display up with one hand, use the other hand to unplug the display power cable.
- Lift the display up enough to have easy access to the connector, but not so much that you stretch the cables and stress their connections (about 8").

Step 20



- Use the tip of a spudger to flip up the metal retaining bracket on the display data cable.
- Carefully pull the display data cable from its socket on the logic board.

⚠ Be sure to pull the display data cable connector straight out of its socket.

Step 21



- Lift the display up to a near-vertical position.
- At this point there is still a strip of adhesive along the bottom of the display, that will hold the display to the frame like a hinge. You can loosen this adhesive by working the display up and down a few times.

Step 22



● If necessary, a plastic card can be used to cut any remaining sections of the bottom adhesive strip.

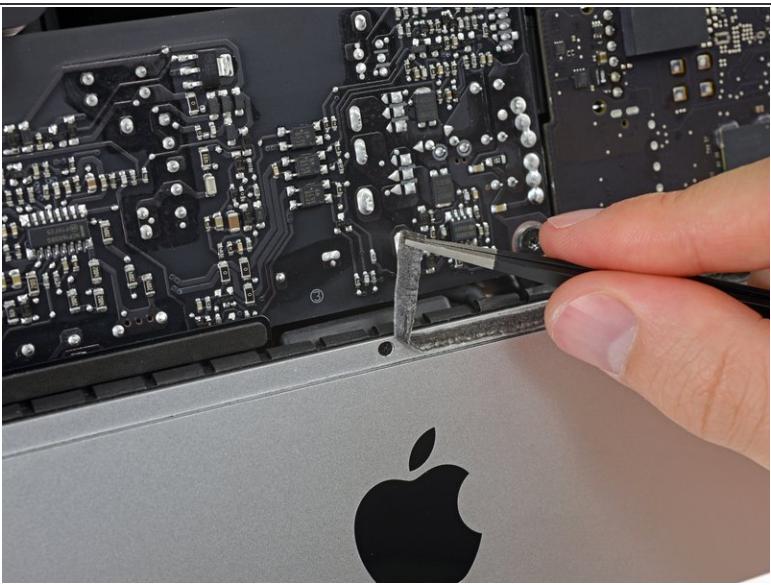
Step 23



- Lift the display up from the frame and remove it from the iMac.
- It may be necessary to slowly lift from one side, to peel against the remaining adhesive.

⚠ Be very careful handling the display—it's big, heavy, and made of glass.

Step 24 — Lower Support Bracket



- Remove the following five Phillips screws holding the lower support bracket in place:
 - Four 3.2 mm screws
 - One 1.7 mm screw

i On at least some EMC 2544 machines, all five screws are the same size.

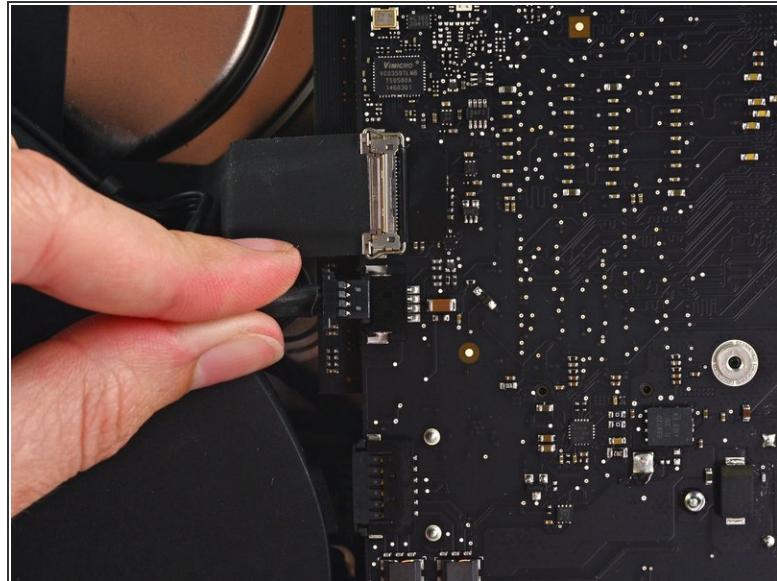
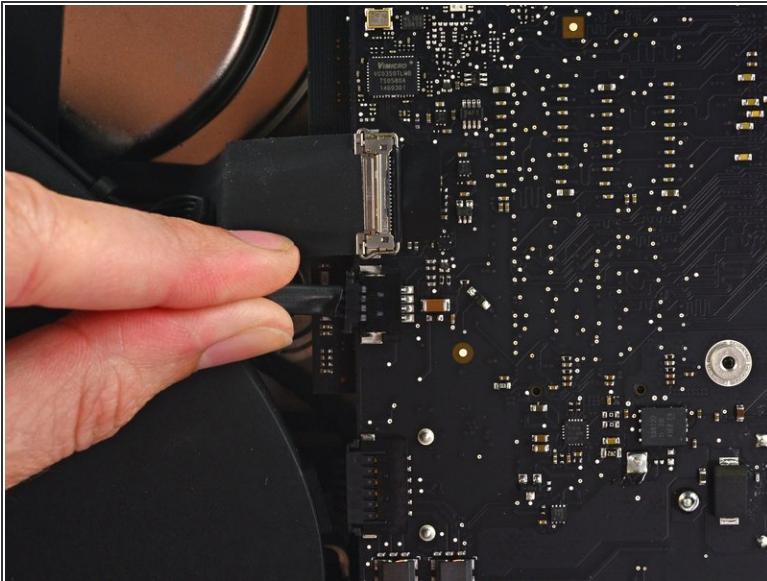
i You may need to peel up the display adhesive lining the bottom edge of the iMac enclosure to access the screws.

Step 25



- Remove the lower support bracket from the iMac enclosure.

Step 26 — Fan



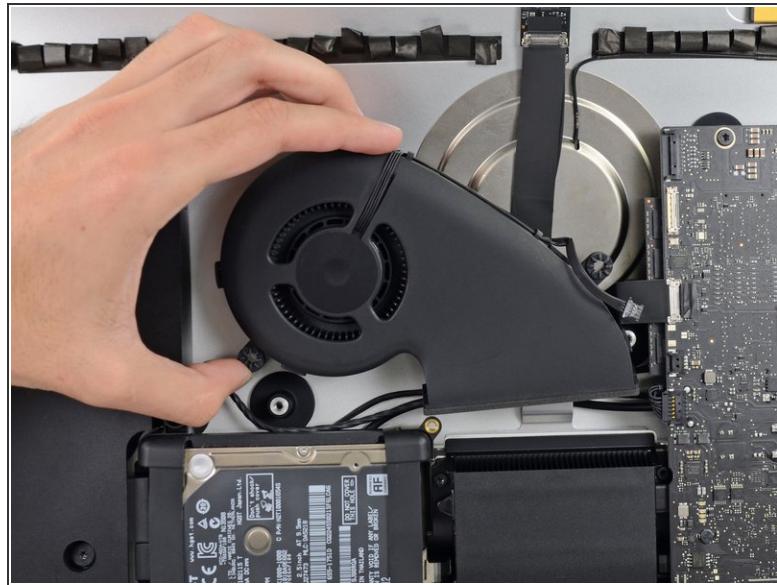
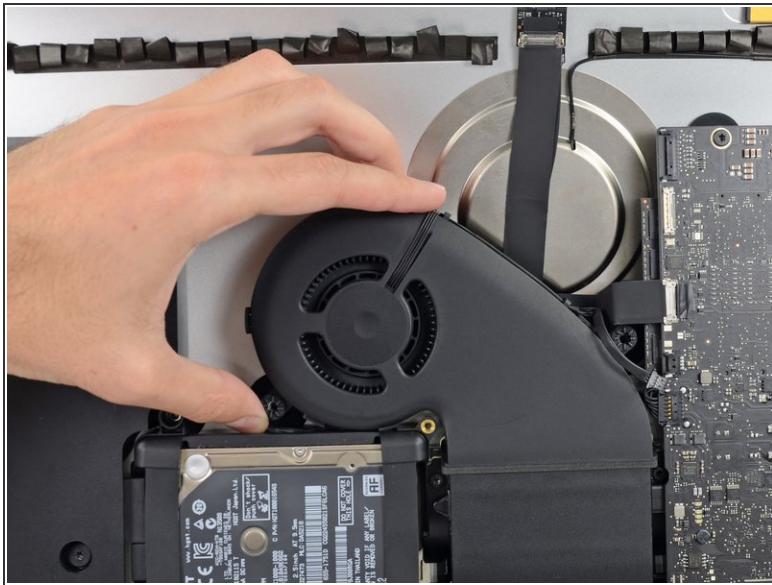
- Pull the fan cable connector straight away from its socket on the logic board.

Step 27



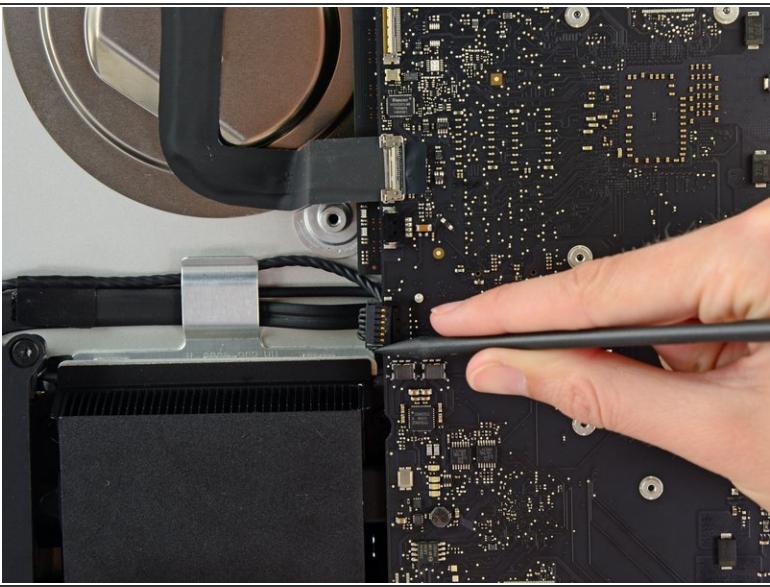
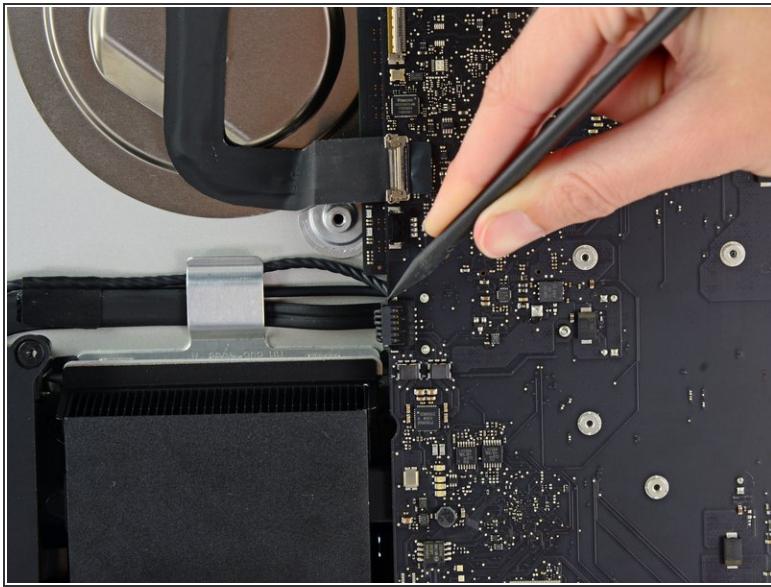
- Remove the three 12.3 mm T10 shoulder screws from the fan enclosure.

Step 28



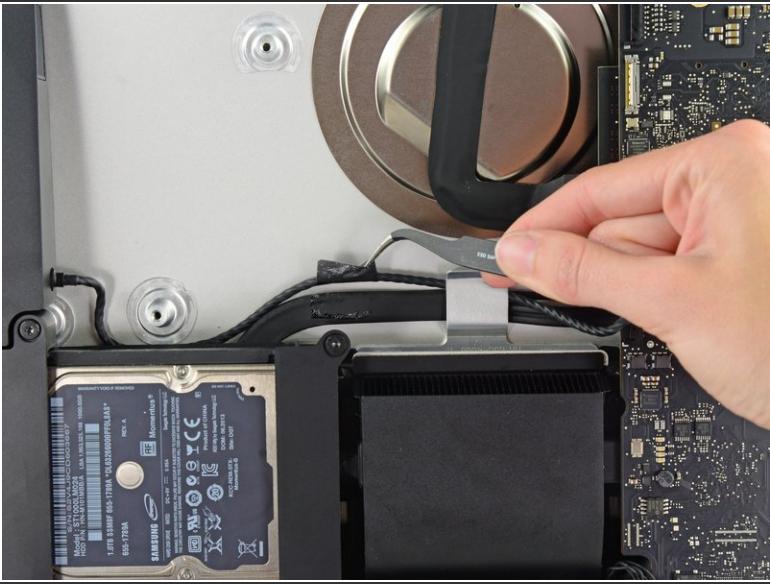
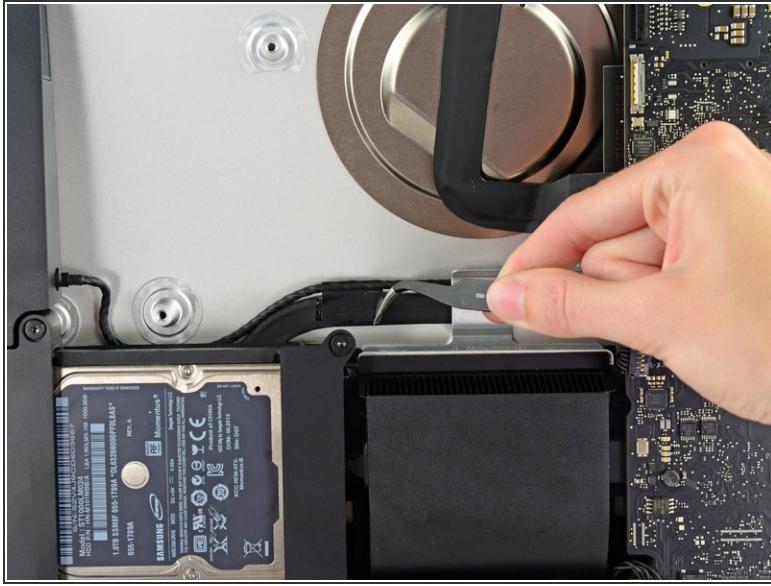
- Lift and remove the fan from the iMac.

Step 29 — Left Speaker



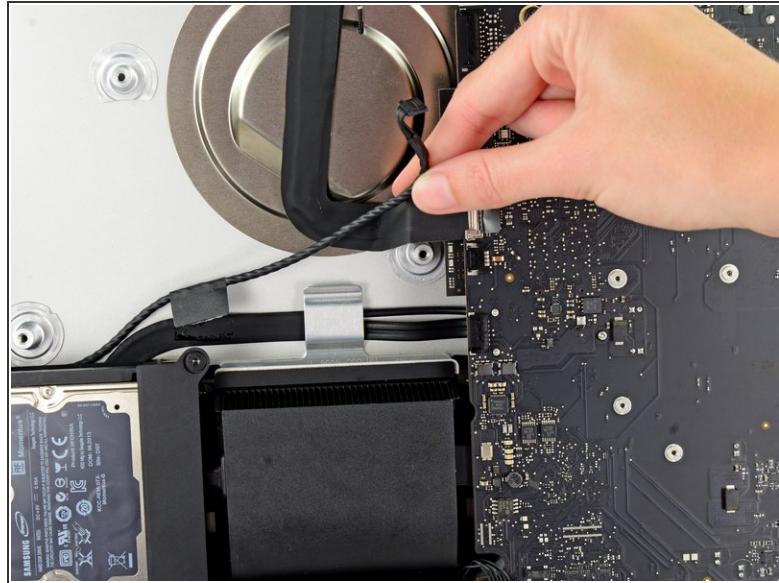
- Use the tip of a spudger to *walk* the left speaker cable connector out of its socket.
- It is recommended to first press on one side of the connector, then press on the other side until freed.

Step 30



- If necessary, use a pair of tweezers to peel the tape securing the left speaker cable to the SATA data/power cable.

Step 31



- Gently lift the left speaker cable upwards to de-route it from the clip holding it to the rear case.

Step 32

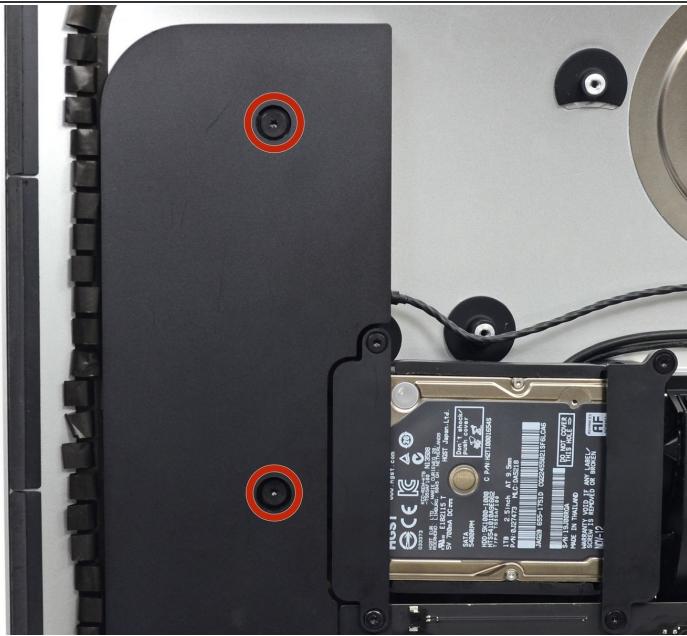


- Use the tip of a spudger to *walk* the power button connector out of its socket on the logic board.

(i) It is recommended to first push on one side, then the other.

⚠ **Be very careful not to touch any solder joints** on the back of the power supply. The power supply's capacitors may be charged enough to give you a dangerous shock.

Step 33



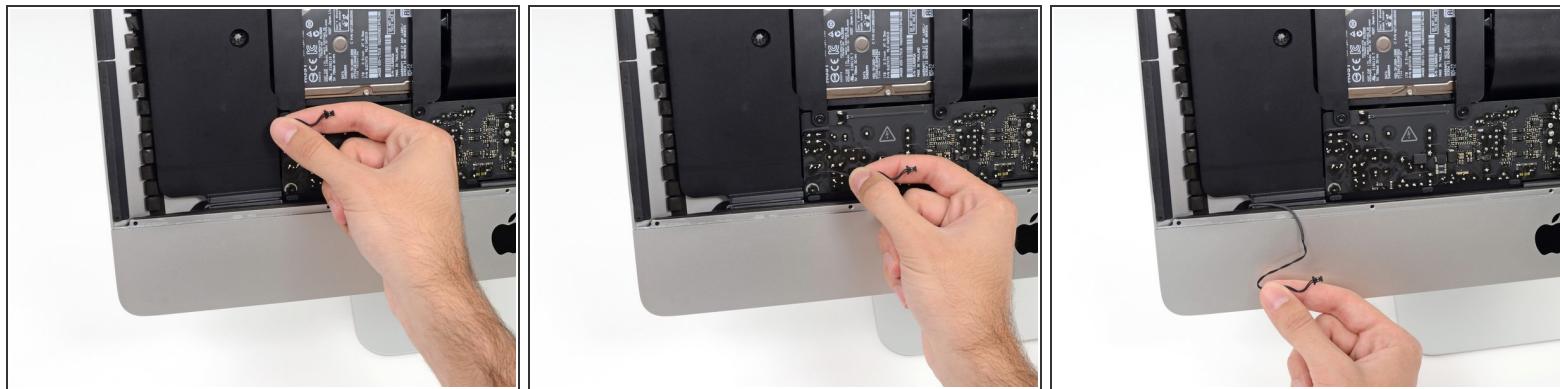
- Remove the two 10.0 mm T10 screws securing the left speaker to the rear case.

Step 34



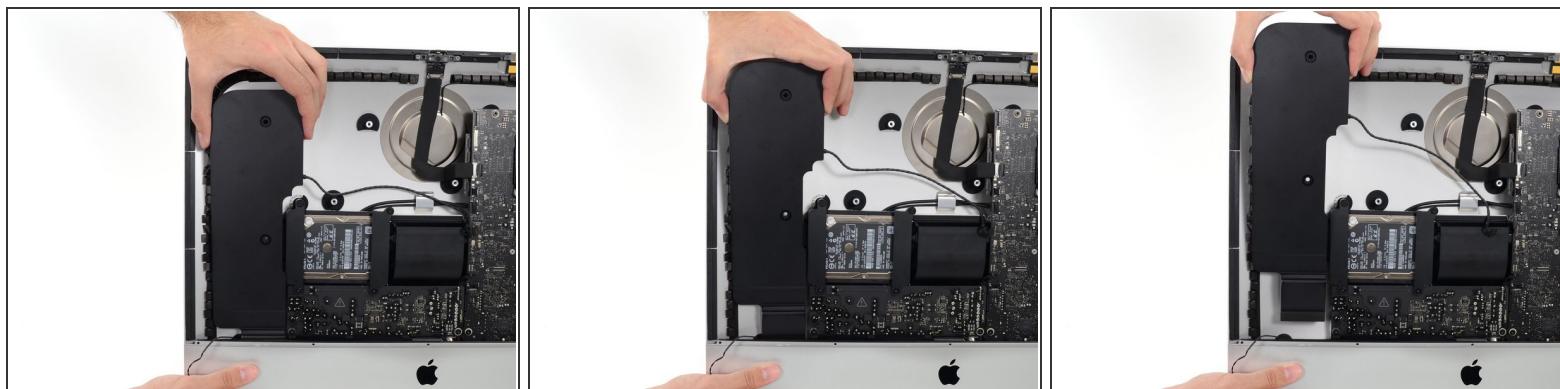
- Lift, but do **not** remove, the left speaker straight up, until the power button cable is exposed (about 0.5").

Step 35



- Carefully de-route the power button cable from its groove in the left speaker.

Step 36



- Lift the left speaker straight up and remove it from the iMac.

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