



# iMac Intel 21.5" Retina 4K Display 2019 Fan Replacement

If the fan in your 21.5" Retina 4K 2019 iMac is...

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# INTRODUCTION

If the fan in your 21.5" Retina 4K 2019 iMac is faulty, failing, or badly clogged with dust, use this guide to replace it and return your iMac to cool and quiet operation.

Some images in this guide use an older iMac, which has minor visual differences. These differences do not affect the repair procedure.



## TOOLS:

[iMac Intel 21.5" Cardboard Service Wedge](#)  
(1)  
[Plastic Cards](#) (1)  
[iMac Opening Wheel](#) (1)  
[Tweezers](#) (1)  
[Spudger](#) (1)  
[TR10 Torx Security Screwdriver](#) (1)



## PARTS:

[iMac Intel 21.5" \(2012-2019\) Adhesive Strips](#) (1)

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## Step 1 — Install the iMac service wedge



- With the hinge free to move, the iMac will be unbalanced and hard to work on. Place an [iMac service wedge](#), in the stand to stabilize the iMac.
  - ⓘ If you are using the [iFixit cardboard service wedge](#), follow [these assembly directions](#) to put it together.
  - ⓘ **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 — Insert the opening tool



- Starting on the left side 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 — Slice through the display adhesive



- Use the tool like a pizza cutter—roll it along the gap, cutting the foam adhesive in between the frame and display.
- ⓘ Be sure to always push with the cutting wheel forward. 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.
- ① You may want to run the tool back and forth a few times to ensure you completely cut through the adhesive.

## Step 7



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

## Step 8



- Push 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.
- ① 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



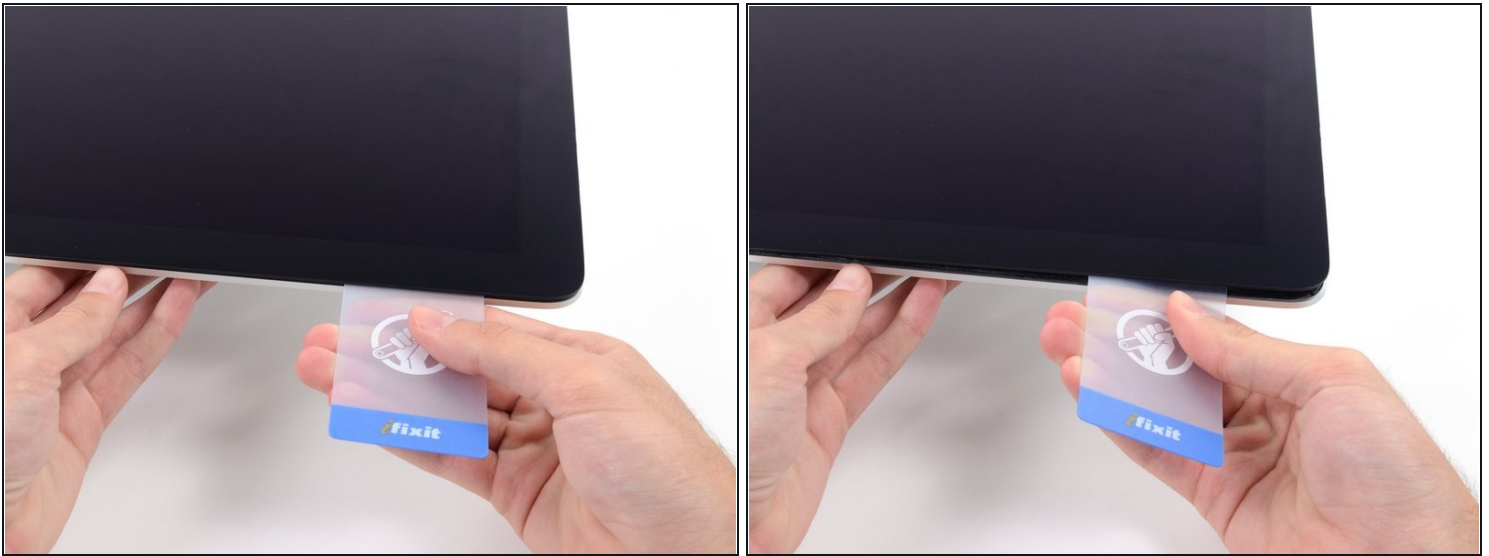
- Wedge the plastic card into the top right corner once again, and leave it there to prevent the adhesive from resticking.

## 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.

⚠ Stop sliding just before the iSight camera to avoid damaging the camera.

## Step 17



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

## Step 18

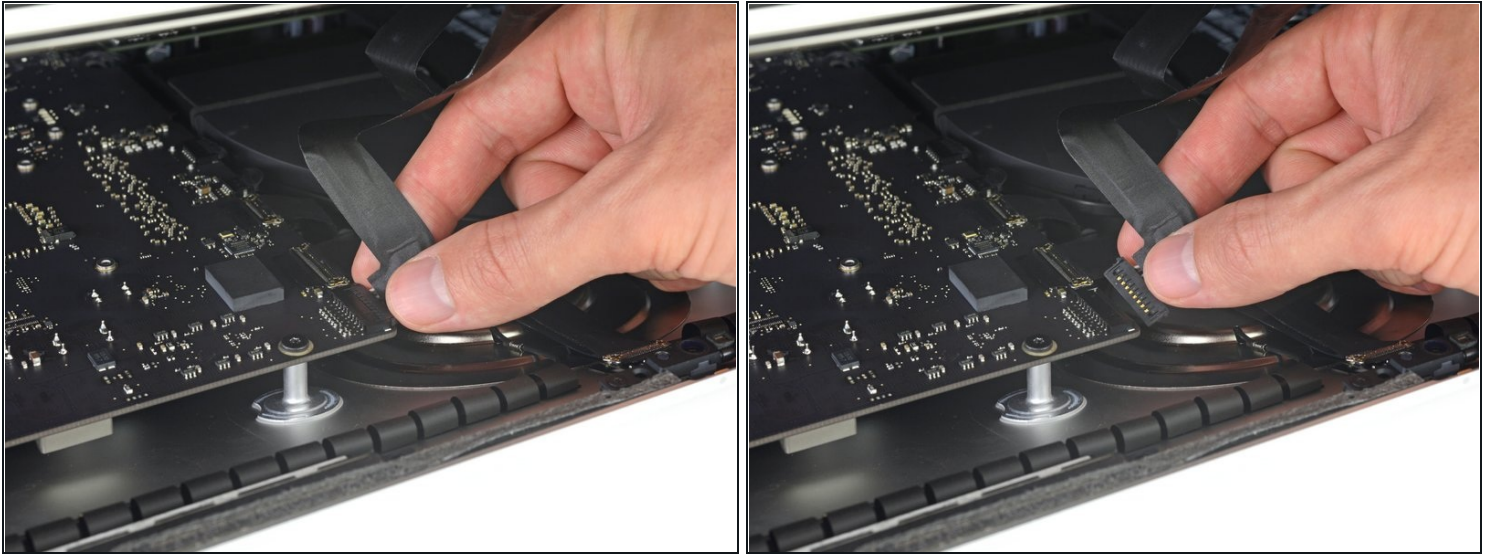


- With both plastic cards inserted as shown near the corners, gently twist the cards sideways to increase the gap between display and case.
- ⓘ If there are any sections that seem to stick and won't separate, stop twisting and use one of the cards to cut the remaining adhesive.
- Begin to lift the top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



- ① 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").
- Hold the display with one hand while using your other hand to unplug the display power cable.

## Step 20



- Continuing to support the display with one hand, 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, keeping it parallel to the motherboard, to avoid damaging it.



## Step 21 — Separate the display



- Lift the display up to a near-vertical position.
- ① 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



- ① If necessary, a [plastic card](#) can be used to cut any remaining sections of the bottom adhesive strip.

## Step 23

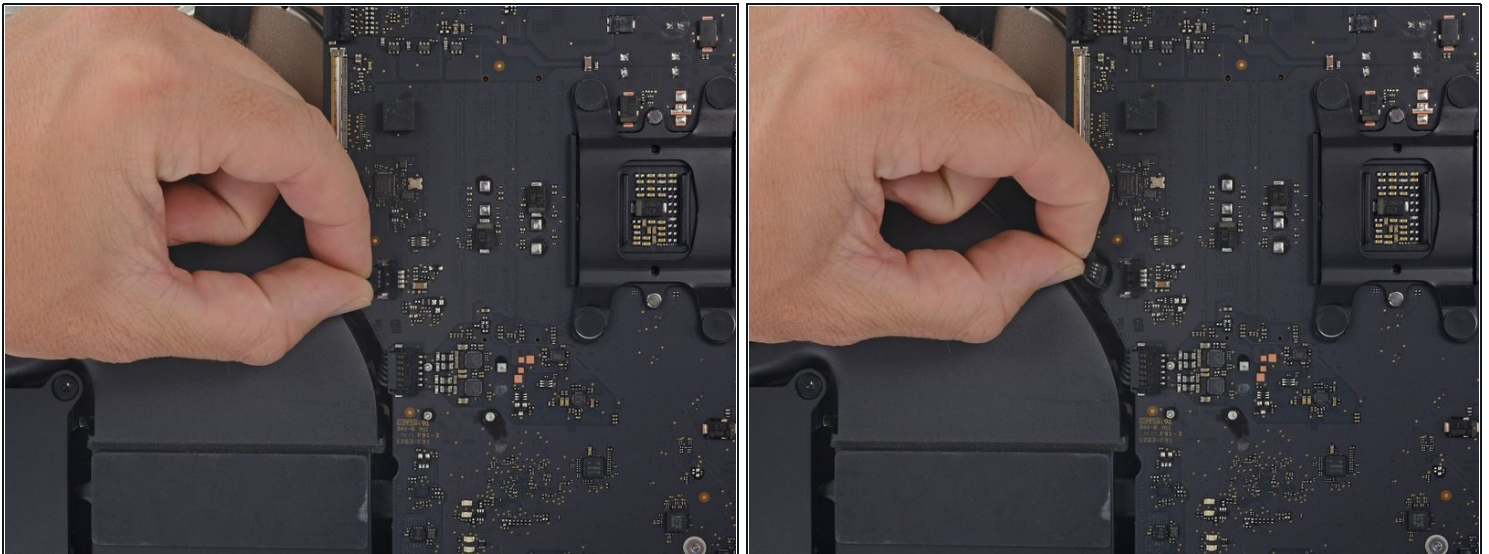


- Lift the display up from the frame and remove it from the iMac.
- It may be necessary to slowly lift from one side to peel against the remaining adhesive.

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

- ☑ After the adhesive is cut, it cannot be used to re-seal the display in place. Follow [this guide](#) to replace the adhesive strips that secure the display to the rear enclosure.

## Step 24 — Fan



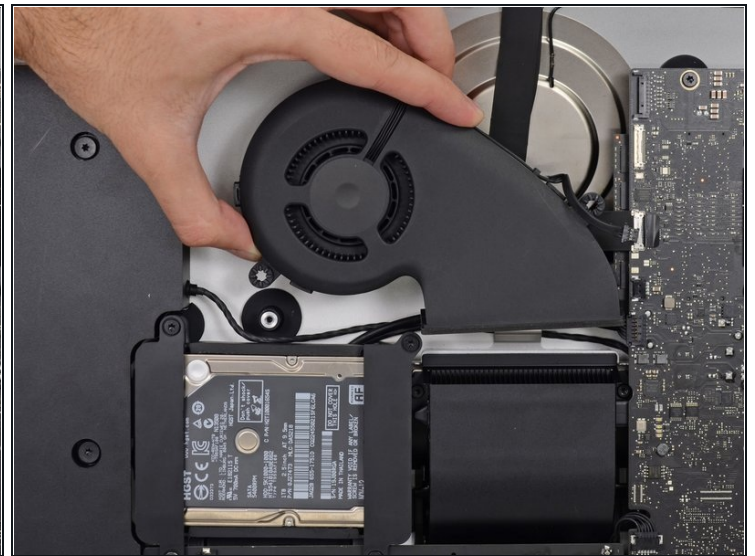
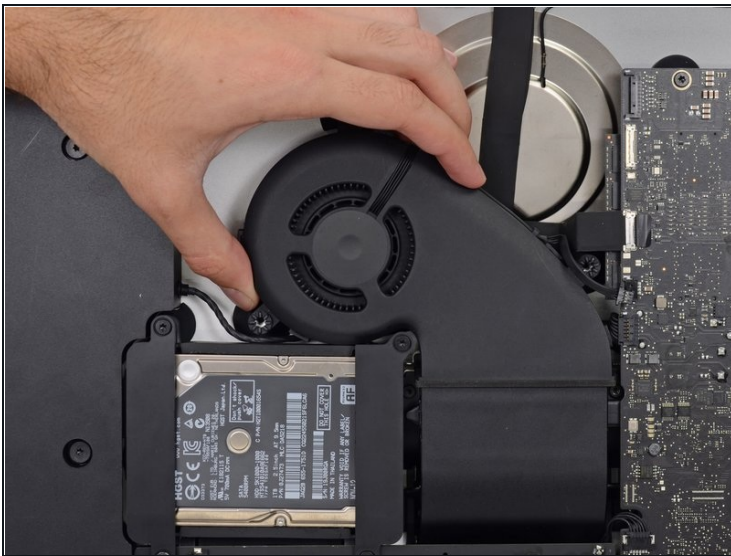
- Gently pull the fan cable connector straight away from its socket on the logic board.

## Step 25



- Remove the three 10 mm T10 Torx screws securing the fan to the rear enclosure.
- ⓘ The uppermost screw has a rubber standoff adhered to its head to support the display—leave this in place.

## Step 26



- Remove the fan from the iMac.



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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.