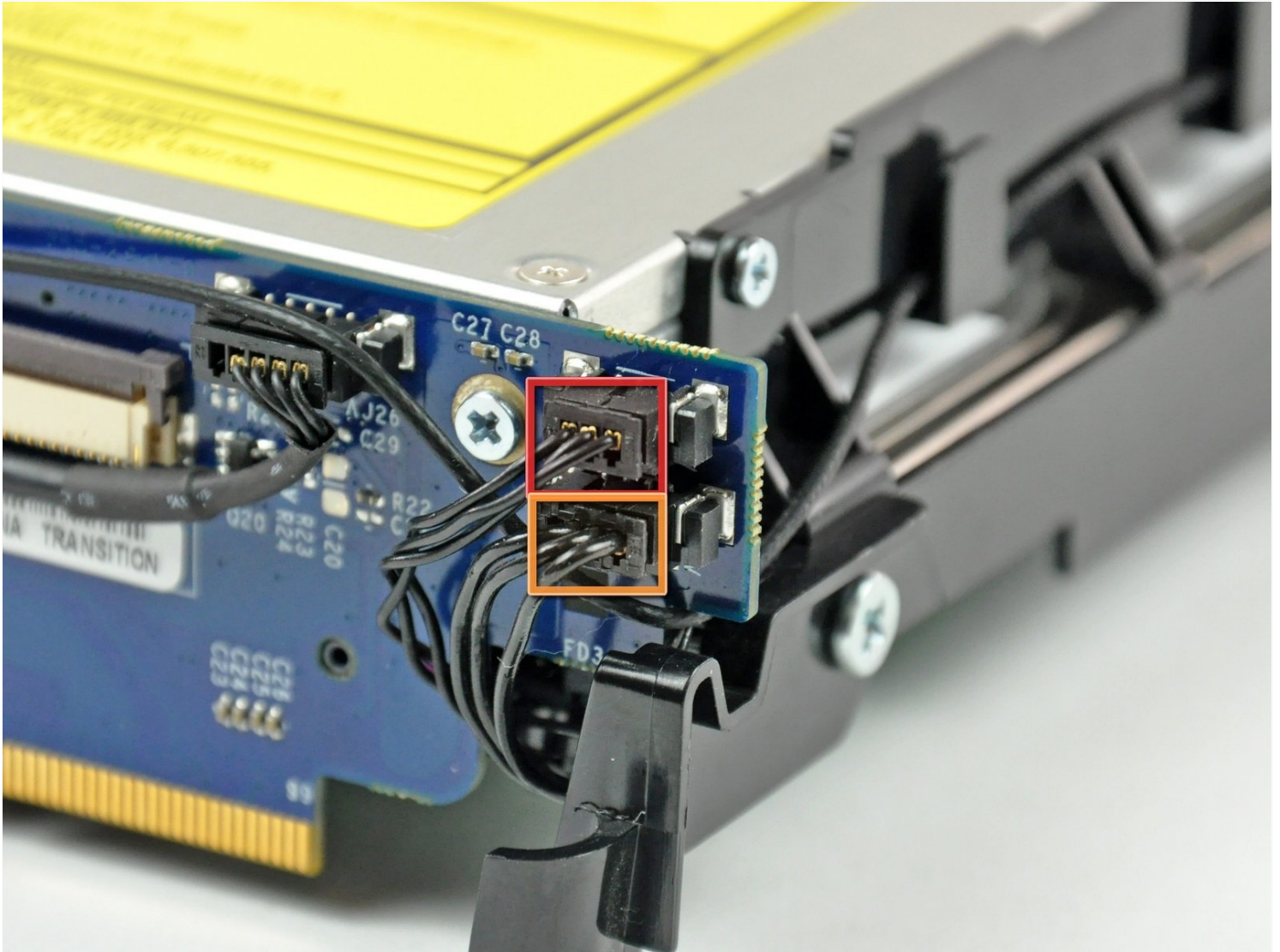# Mac mini Model A1176 Fan Replacement

Replace a faulty fan to keep temperatures low.

Written By: Walter Galan

INTRODUCTION

Replace a faulty fan to keep temperatures low.

🔧 **TOOLS:**

Jimmy (1)
Phillips #00 Screwdriver (1)
Spudger (1)
Tweezers (1)

⚙ **PARTS:**

Intel Mac mini (Model A1176) Fan (1)
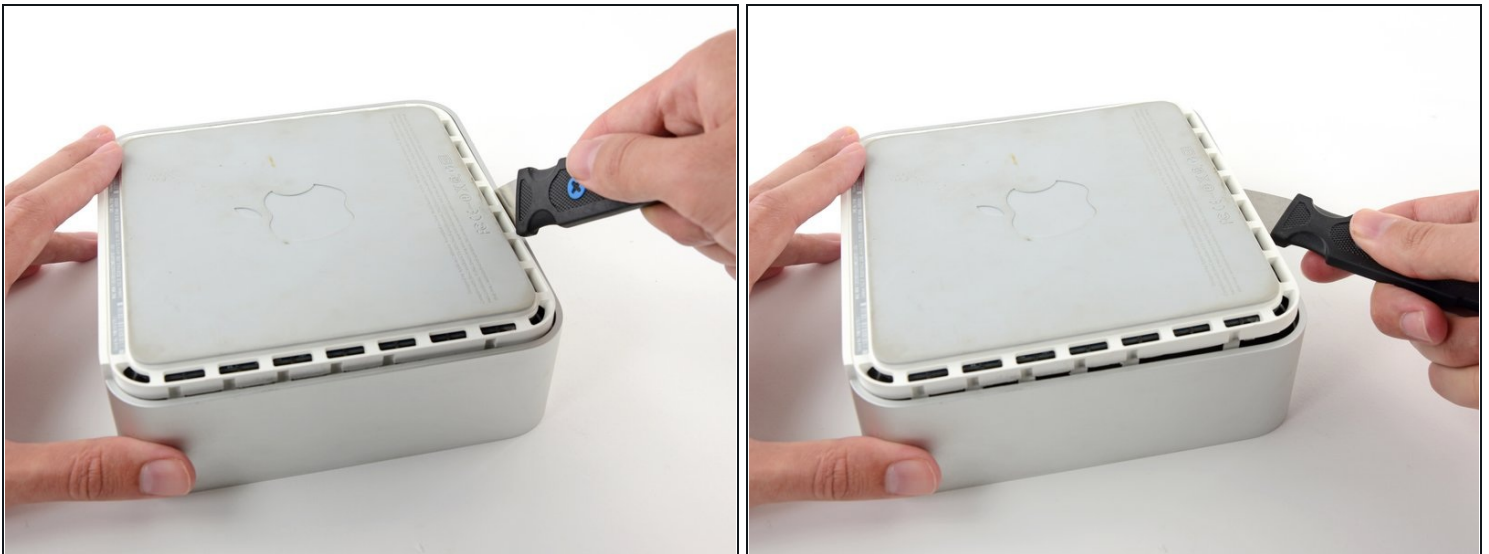
Step 1 — Top Housing

- Power down your Mac mini, disconnect all of the cables, and flip it over.

- Insert the Jimmy into the crack between the aluminum top housing and the plastic lower housing.

- The Jimmy should reach a stop about 3/8" down.

Step 2

- Gently bend the Jimmy outwards to pry the crack open a little larger and lift the lower housing up a small amount.

- ⓘ There are several plastic clips on the lower housing that fit into a channel in the aluminum top housing. Your goal is to use the Jimmy to push these clips inward enough to free them from the channel, while gently pulling up on the lower housing.

Step 3

- Once you have the first side free, rotate the Mac mini and start prying up on the front edge.

- Use the same prying motion to both bend the clips inward and lift the lower housing up out of the top housing.
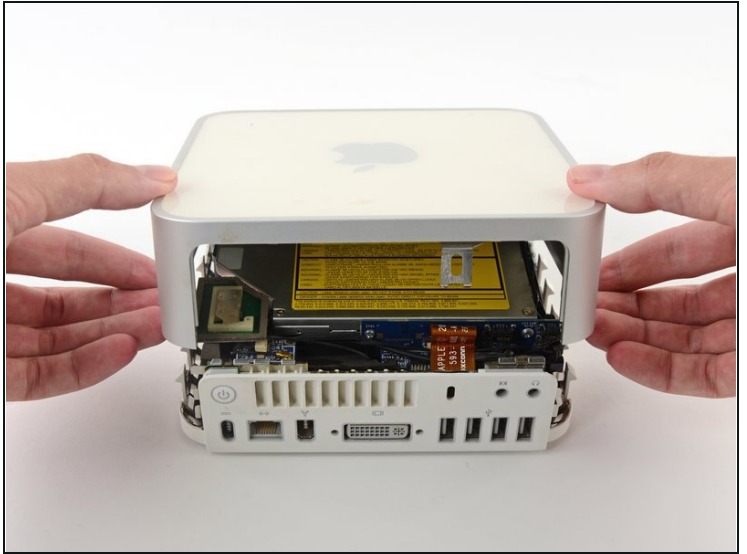
Step 4

- You may need to move the Jimmy along the edge to pry up all of the clips. Be patient and do a little bit at a time.

Step 5

- Keep working around the perimeter, freeing the clips along the final edge.
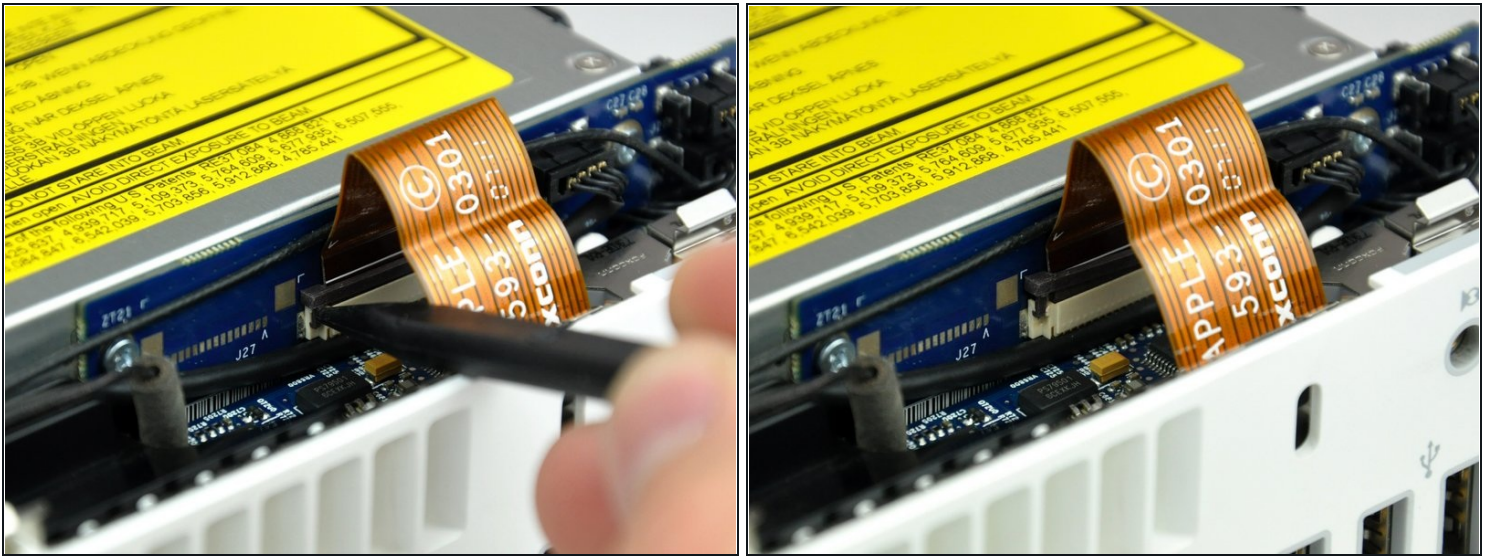
Step 6

- Flip the Mac mini back over and lift the top housing off of the lower housing.

Step 7 — Internal Frame

⚠️ Later in this guide you will remove several recessed Phillips screws. Bit drivers are generally too large to fit in the recesses, so be sure to have a thin shafted Phillips screwdriver on hand.

ⓘ First remove the AirPort antenna (the larger of the two), located near the power button.

● Slightly squeeze the two retaining arms toward each other and lift the AirPort antenna off its post.

⚠️ Squeezing the two posts excessively will surely break them off the internal frame. Work delicately.

◪ During reinstallation, you will have to slightly squeeze the two posts together so they fit into the openings on the AirPort antenna board.
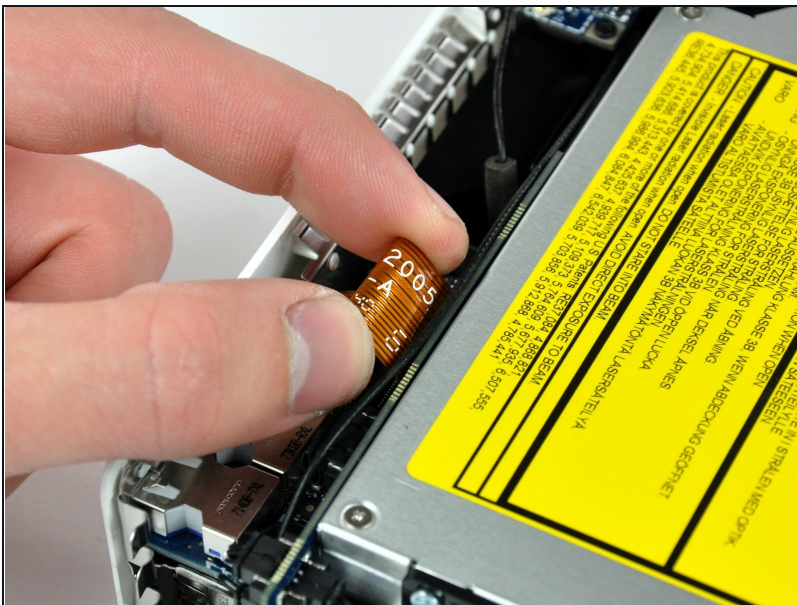
Step 8

- Use the tip of a spudger to slightly lift the left side of the ZIF cable lock up from its socket.
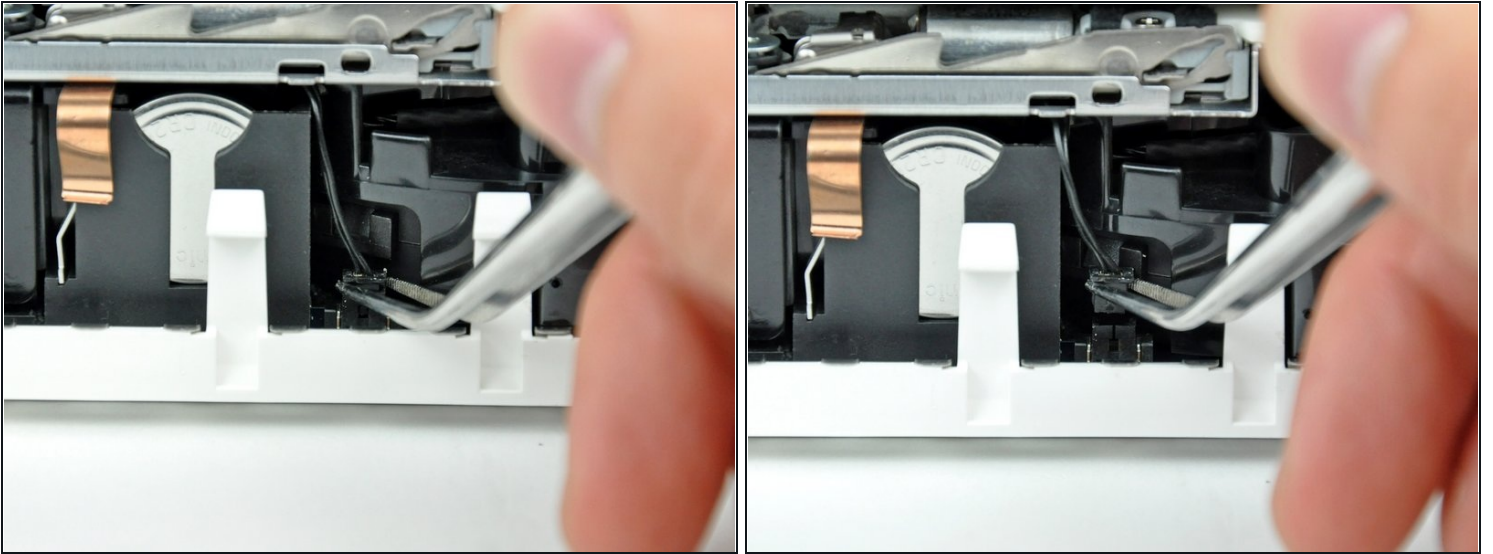
⚠ The ZIF cable lock will lift about 1 mm and stop. **Do not** try to completely remove the ZIF cable lock.
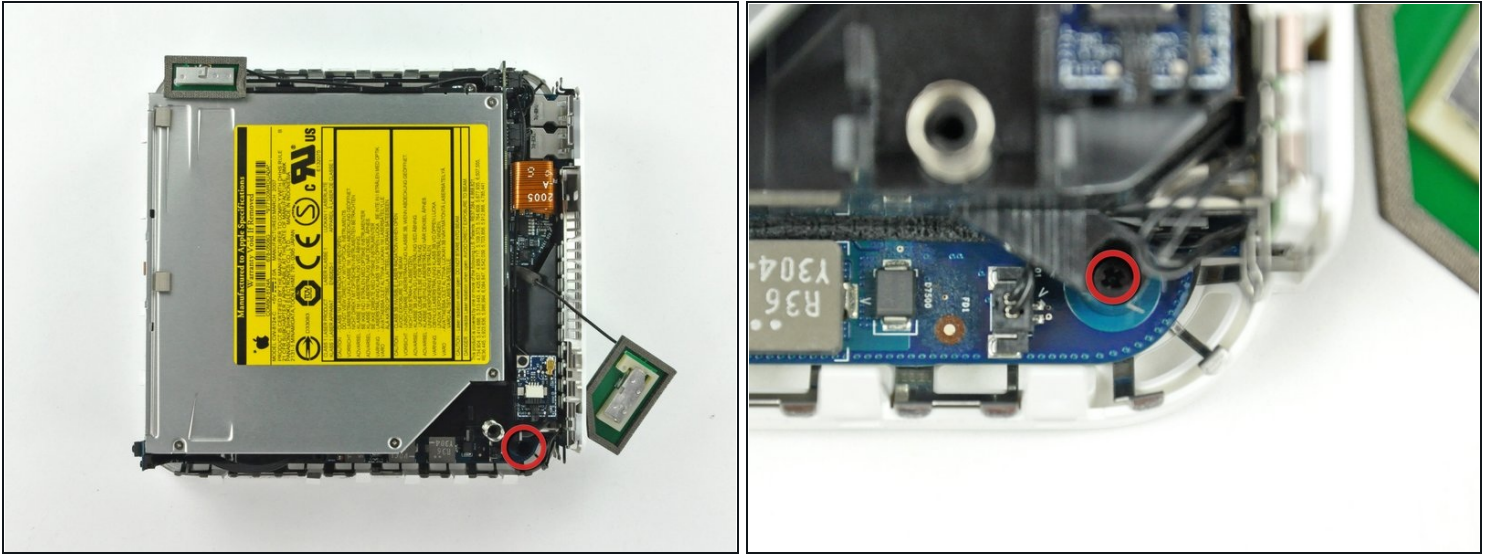
Step 9

- Lift the audio board ribbon cable up out of its socket.

ⓘ If it refuses to lift from its socket, the ZIF cable lock is not fully released. Make sure it is evenly lifted about 1 mm from the socket on the interconnect board.

ⓘ Rotate the mini so that the SuperDrive slot loading mechanism is facing you.

● Use a pair of [tweezers](#) to lift the hard drive thermal sensor cable connector up off its socket on the logic board.

⚠ Use tweezers to grab the connector (as seen in the picture), **not the wires**.

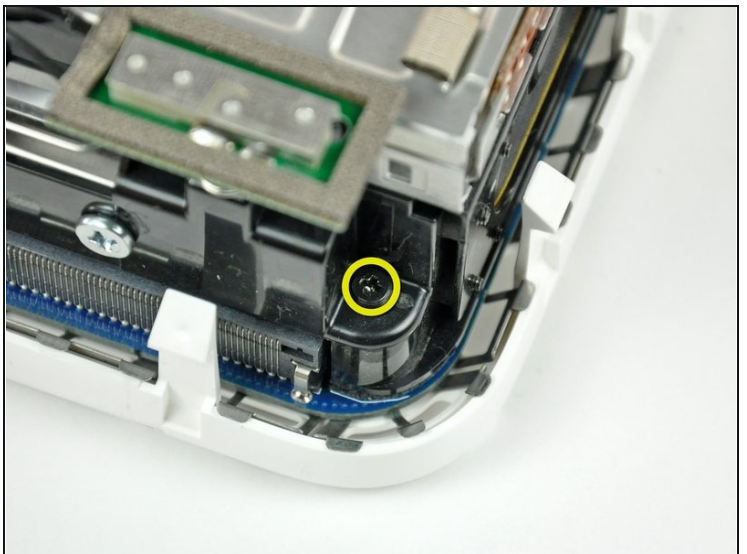ⓘ The connector is located under the optical drive opening, next to the PRAM battery.

Step 11

ⓘ In the next few steps, you will remove the four Phillips screws securing the internal frame to the bottom case. Included in each step is an overview picture showing the general location and a closeup showing the actual screw.

● Remove the recessed Phillips screw near the power button securing the internal frame to the bottom housing.
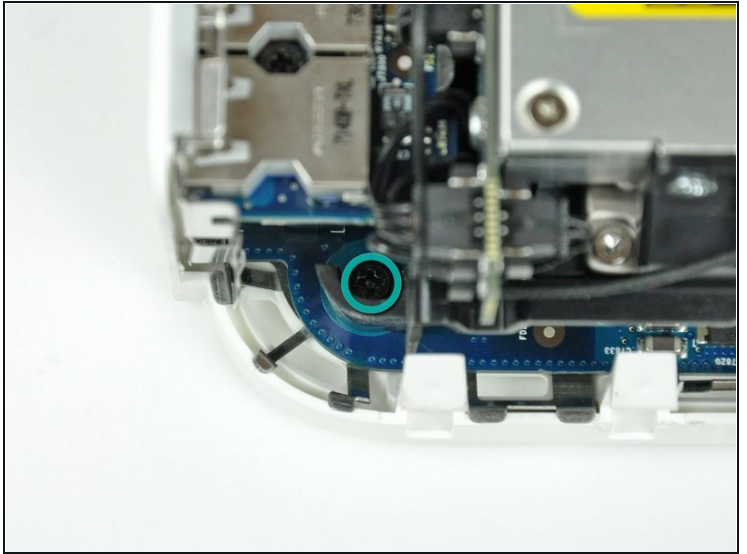
Step 12

- Remove the recessed Phillips screw near the sleep light securing the internal frame to the bottom housing.

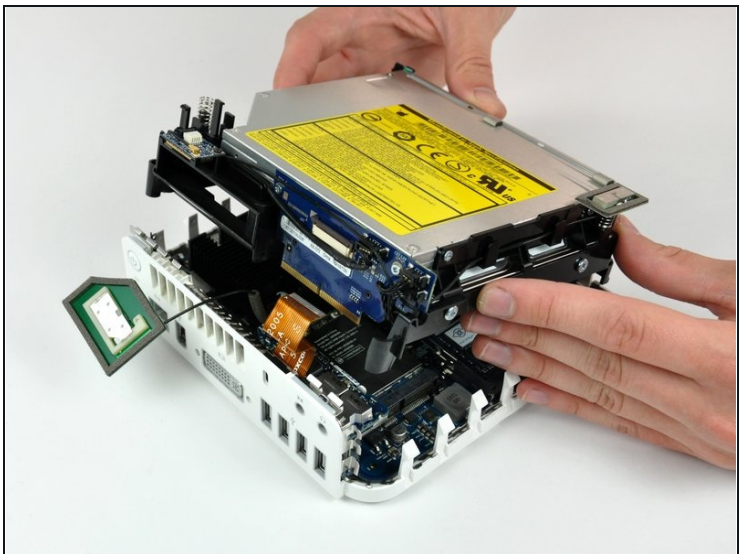- ⓘ This screw is the longest of the four screws securing the internal frame to the bottom case.

Step 13

- Remove the Phillips screw from the internal frame near the Bluetooth antenna.
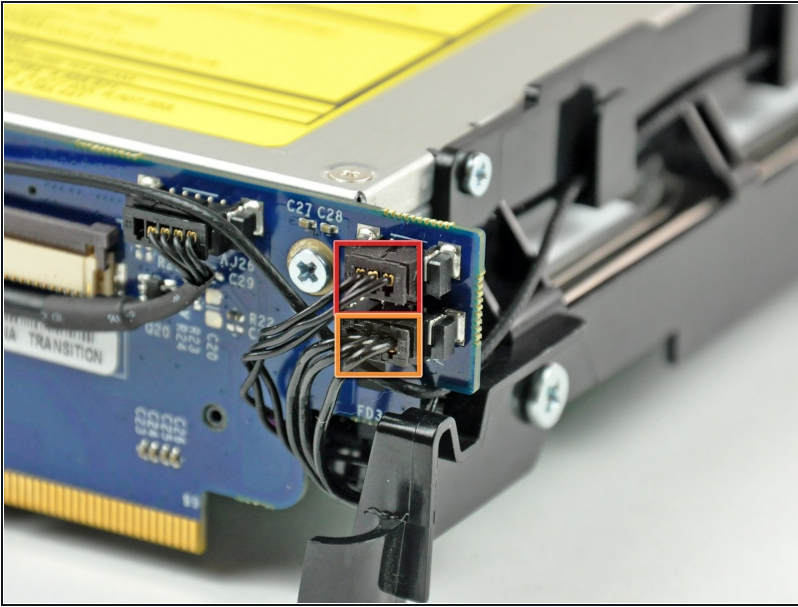
Step 14

- Remove the Phillips screw near the audio ports securing the internal frame to the bottom case.

Step 15

- Gently lift the internal frame up from the bottom housing, minding the AirPort antenna and any other cables that may get caught.

- (i) It may be necessary to pull up near the interconnect board to separate it from the logic board.
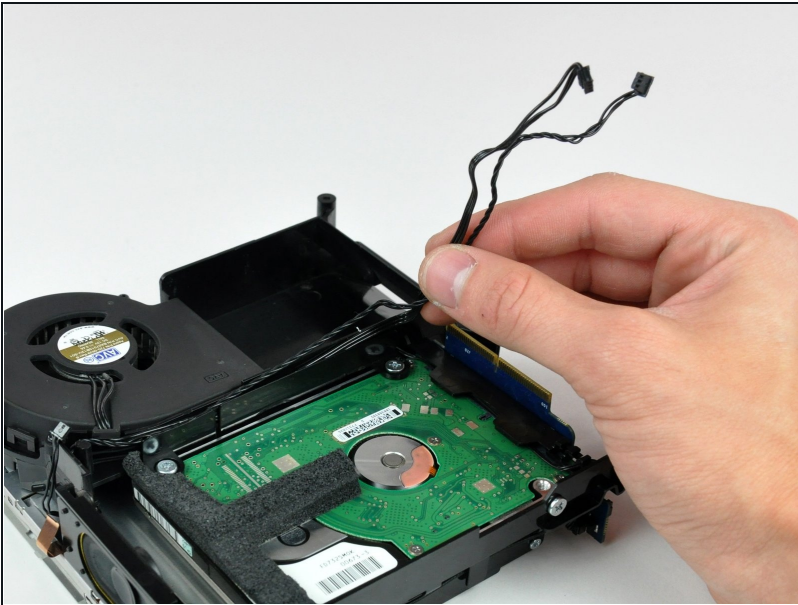
Step 16 — Fan

- Disconnect the following connectors from the interconnect board:
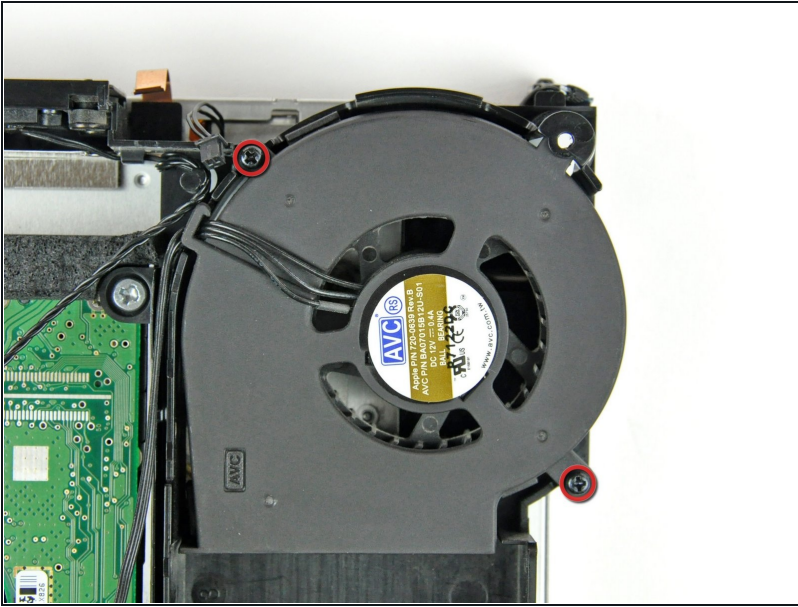 - IR board cable.

  - Fan cable.

- (i) Due to their small size, it is helpful to either use your fingernails or tweezers to grab the connectors and pull them away from the interconnect board.

Step 17

- De-route both the fan and IR board cables out of the channel in the internal frame.

Step 18

- Remove the two Phillips screws securing the fan to the internal frame.

Step 19

- Lift the fan out of the internal frame, minding any cables that may get caught.

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