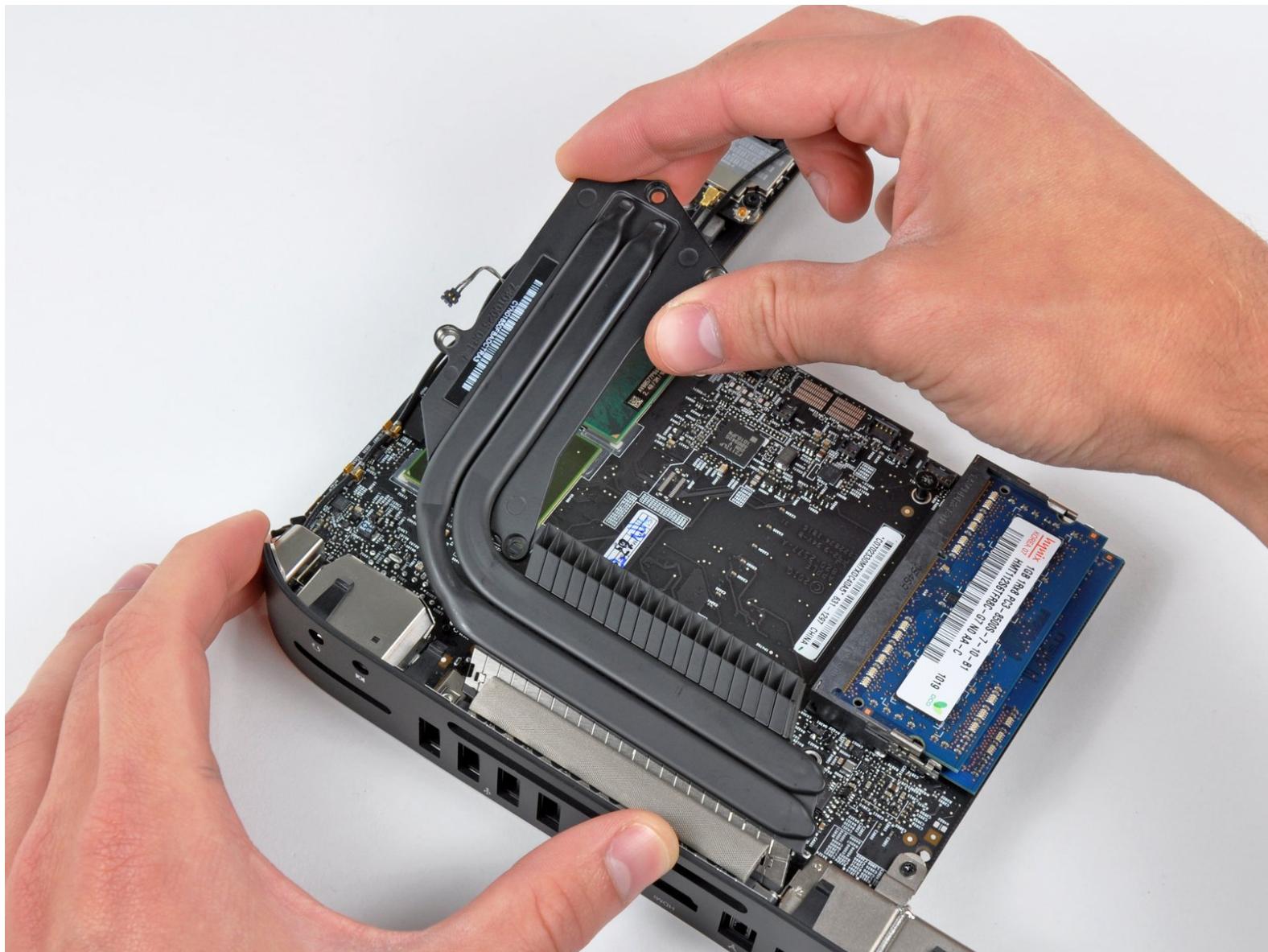




# Mac mini Mid 2010 Heat Sink Replacement

Replacing the mini's heat sink.

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## INTRODUCTION

Use this guide to replace your mini's heat sink. Reinstalling the heat sink will require a new layer of thermal paste.

### TOOLS:

- [2 mm Hex Screwdriver \(1\)](#)
- [Arctic Silver ArctiClean \(1\)](#)
- [Arctic Silver Thermal Paste \(1\)](#)
- [Mac Mini Logic Board Removal Tool \(1\)](#)
- [Spudger \(1\)](#)
- [T6 Torx Screwdriver \(1\)](#)
- [T8 Torx Screwdriver \(1\)](#)

## Step 1 — Bottom Cover



- Place your thumbs in the depressions cut into the bottom cover.
- Rotate the bottom cover counter-clockwise until the white dot painted on the bottom cover is aligned with the ring inscribed on the outer case.

## Step 2



- Tilt the mini enough to allow the bottom cover to fall away from the outer case.
- Remove the bottom cover and set it aside.

## Step 3 — Fan



- Remove the two 11.3 mm T6 Torx screws securing the fan to the logic board near the antenna plate.

## Step 4



- Lift the ear of the fan nearest the RAM up off the standoff secured to the outer case.
  - ⓘ* If the fan doesn't separate from the standoff screw with a moderate amount of force, you can use a T6 Torx driver to simply remove this screw.

## Step 5



- Lift the fan out of the mini for enough clearance to access its connector.
- Carefully pull the fan cables upward to lift the fan connector up out of its socket on the logic board.
- Remove the fan.

## Step 6 — Cowling



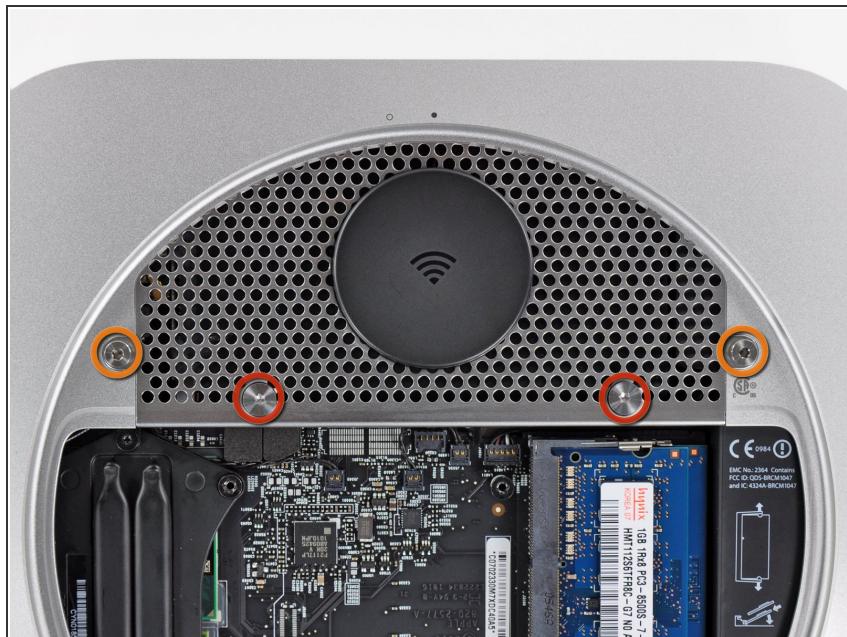
- Remove the single 3.5 mm T6 Torx screw securing the cowling to the heat sink.

## Step 7



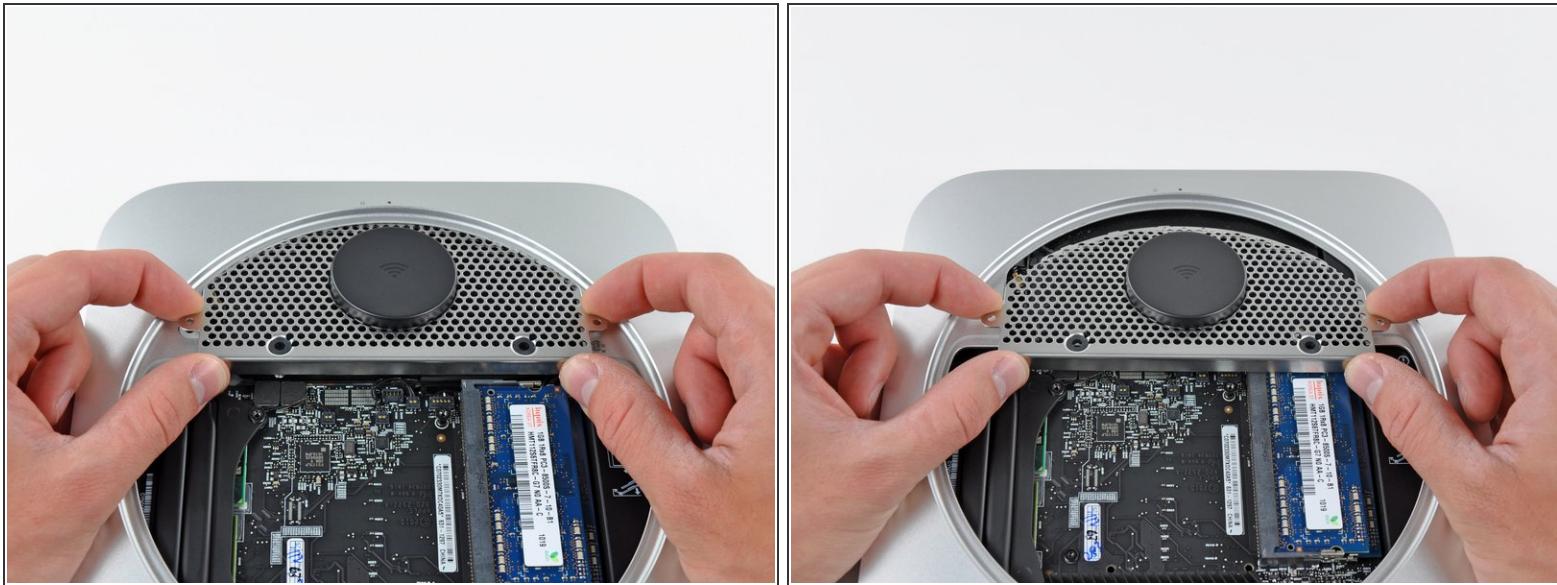
- Lift the cowling from the end nearest the antenna plate.
- Rotate the cowling away from the outer case and remove it from the mini.

## Step 8 — Antenna Plate



- Remove the following screws securing the antenna plate to the mini:
  - Two 6.6 mm T8 Torx screws
  - Two 5.0 mm T8 Torx or 2.0 mm Hex screws (either will work)

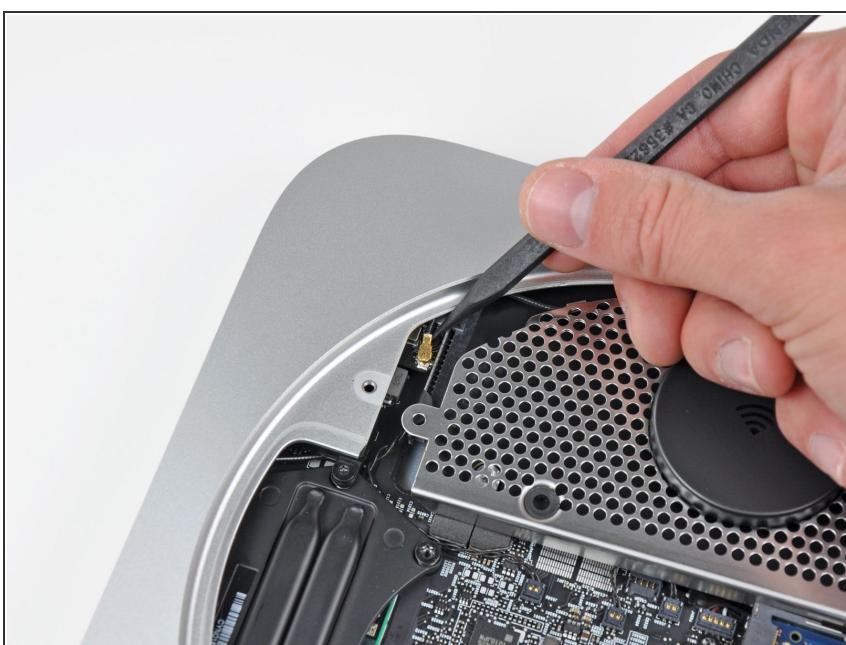
## Step 9



- Slightly lift the antenna plate from the end closest to the RAM.
- Carefully pull the antenna plate straight away from the circular rim of the outer case.

**⚠** Do not remove the antenna plate yet. It is still attached to the AirPort/ Bluetooth board.

## Step 10



- Use the tip of a spudger to carefully pry the antenna connector up off the AirPort/Bluetooth board.

## Step 11



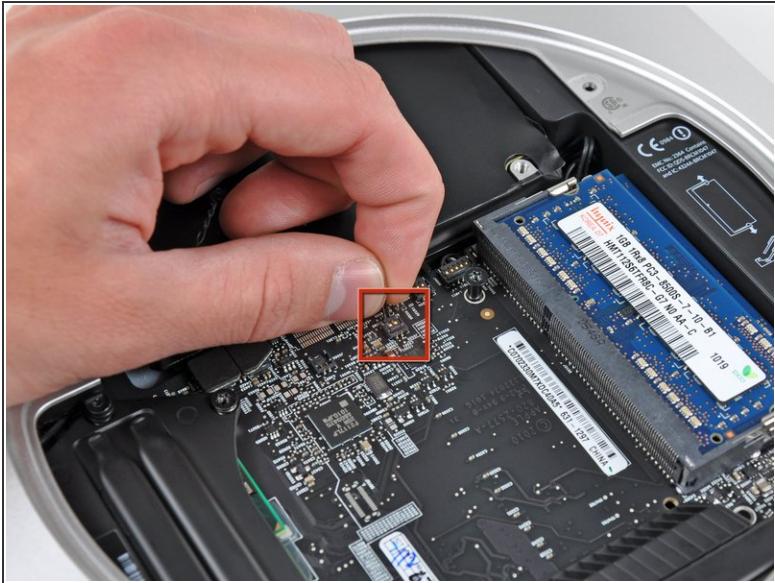
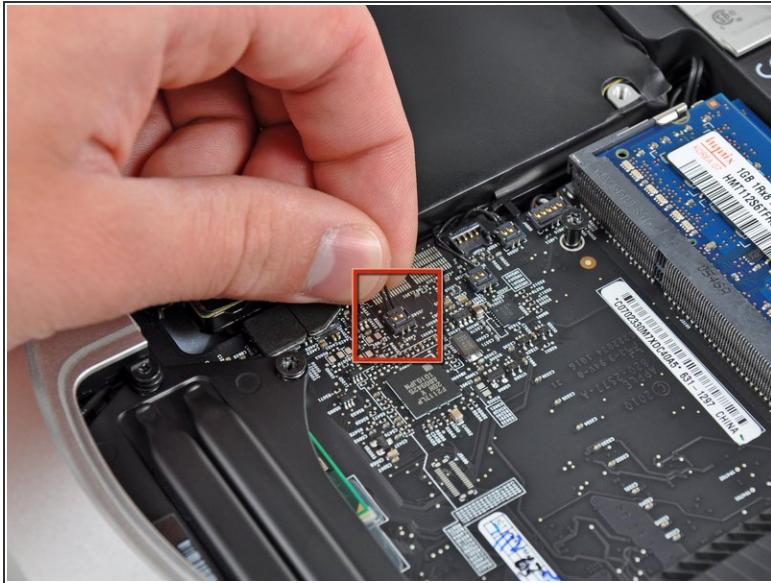
- Remove the antenna plate from the mini.

## Step 12 — Logic Board



- Remove the following three screws:
  - One 5.0 mm T8 Torx or 2.0 mm Hex screw (either will work)
  - One 16.2 mm T6 Torx screw
  - One 26 mm T6 Torx standoff

## Step 13



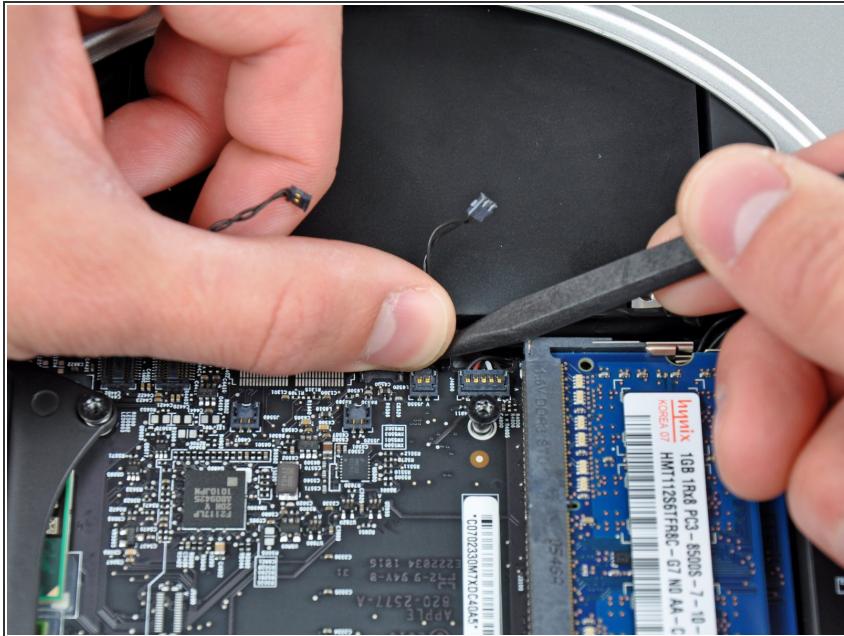
- Carefully pull the wires for both hard drive thermal sensors upward to lift their connectors up and out of the sockets on the logic board.

## Step 14



- Use the flat end of a spudger to pry both the hard drive and optical drive connectors up out of their sockets on the logic board.

## Step 15



- To disconnect the optical drive thermal sensor, pinch its cables between your thumb and a spudger and pry the spudger upward to lift the connector up and out of its socket on the logic board.

## Step 16



- Use the tip of a spudger to lift the IR sensor connector up and out of its socket on the logic board.

## Step 17



**⚠** To remove the logic board, two cylindrical rods must be inserted into the holes highlighted in red. Inserting instruments into any logic board holes other than the ones highlighted in red may destroy the logic board.

- Insert a [Mac mini Logic Board Removal Tool](#) into the two holes highlighted in red. Be sure it makes contact with the outer case below the logic board before proceeding.
- *(i)* If you don't have a Logic Board Removal Tool handy, you can use two tools having a maximum diameter of 2.5 mm instead. Just insert one into each of the highlighted holes.
- Carefully pull the tool toward the I/O board. The logic board and I/O board assembly should slightly slide out of the outer case.
- Cease prying when the I/O board is visibly separated from the outer case. Remove the Mac mini Logic Board Removal tool.

## Step 18



- Simultaneously push the two plastic clips on the far left and right sides of the I/O board toward the middle of the I/O board and pull the I/O board away from the outer case.

## Step 19



- Pull the I/O board/logic board assembly out of the outer case enough to access the power connector.
- Use a pair of tweezers to disconnect the power cable from the logic board.

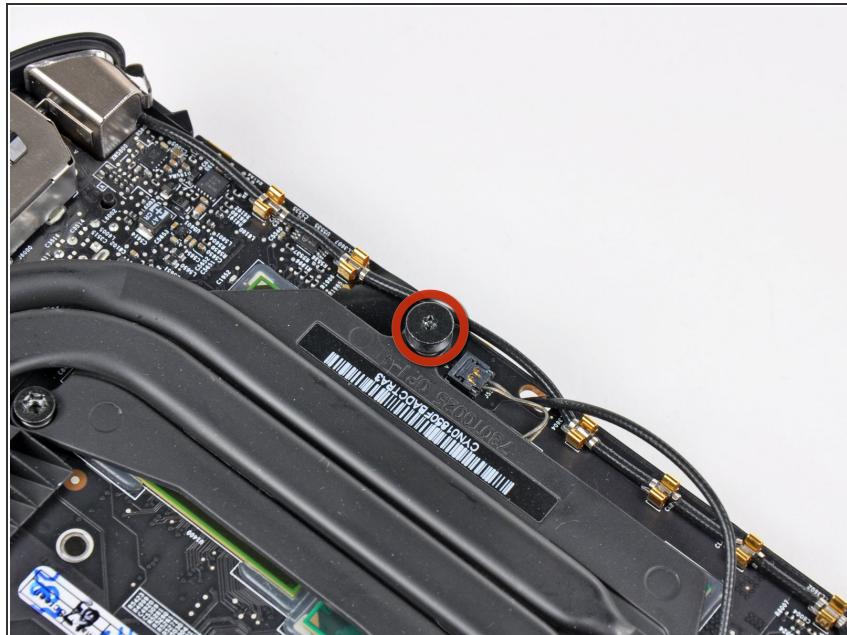
**i** Pull the power cable connector toward the optical drive opening.

## Step 20



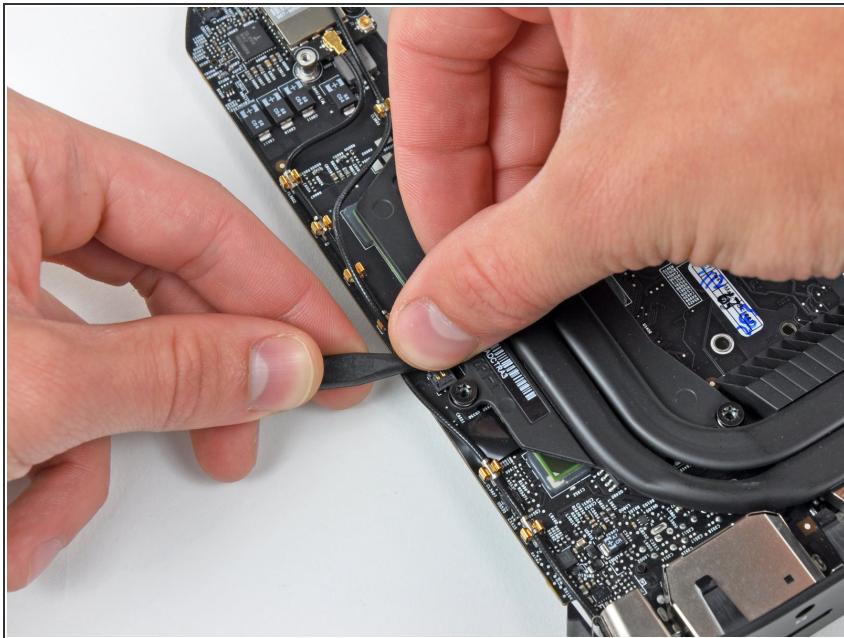
- Carefully slide the logic board assembly out of the mini, minding any cables that may get caught.

## Step 21 — Heat Sink



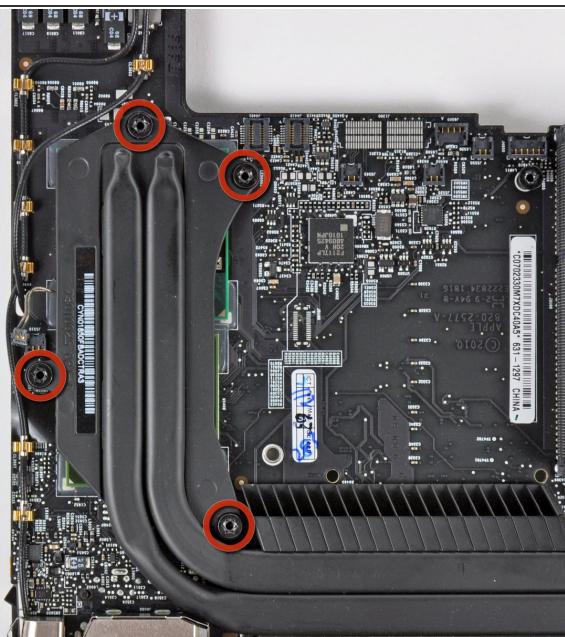
- Remove the single 5 mm T6 Torx standoff from the heat sink near the edge of the logic board.

## Step 22



- To disconnect the heat sink thermal sensor, pinch its cables between your thumb and a spudger and pry the spudger upward to lift the connector up and out of its socket on the logic board.

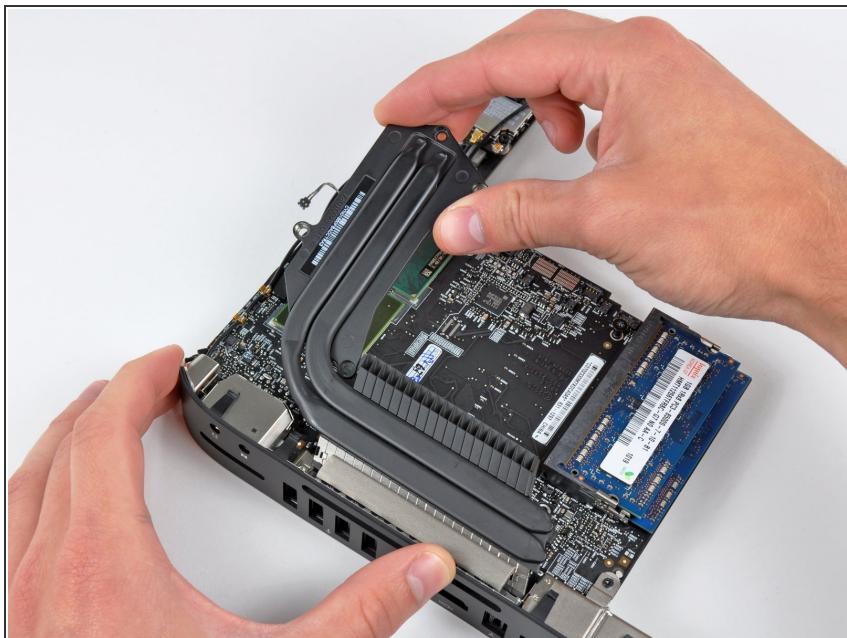
## Step 23



- Remove the four 8.5 mm T8 Torx screws securing the heat sink to the logic board.

**⚠️** Keep track of the springs held beneath each of the heat sink screws.

## Step 24



- Remove the heat sink from the logic board, minding any cables that may get caught.

**i** If the heat sink appears to be stuck to the logic board after removing all screws, it may be helpful to use a spudger to separate the two components.

**?** If you need to mount the heat sink back onto the logic board, we have a [thermal paste guide](#) that makes replacing the thermal compound easy.

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