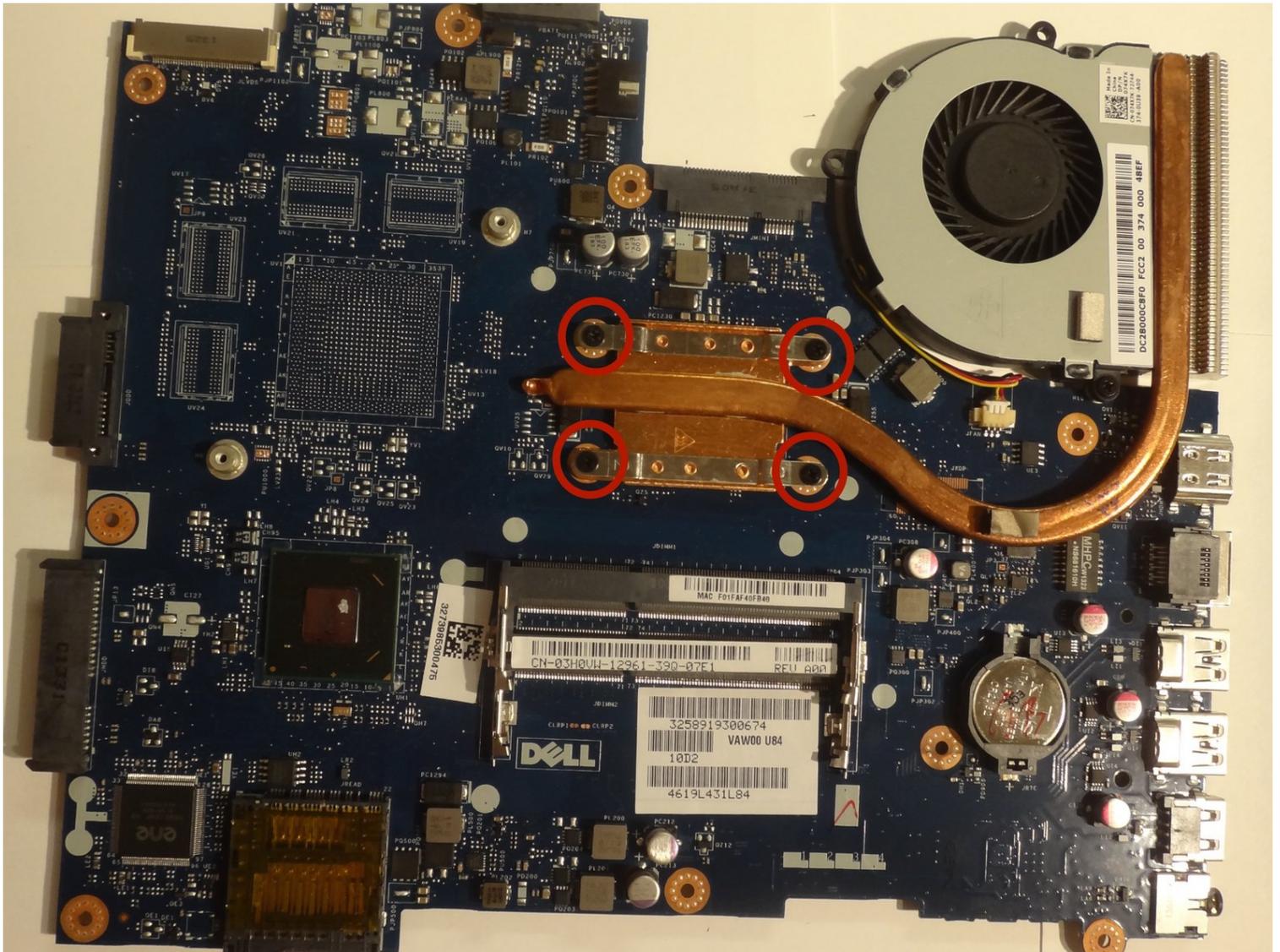


Dell Inspiron 15-3521 Heat Sink Replacement

Written By: Andrew Dippre



 **TOOLS:**

Phillips #00 Screwdriver (1)

Spudger (1)

Step 1 — Removing Underside Screws



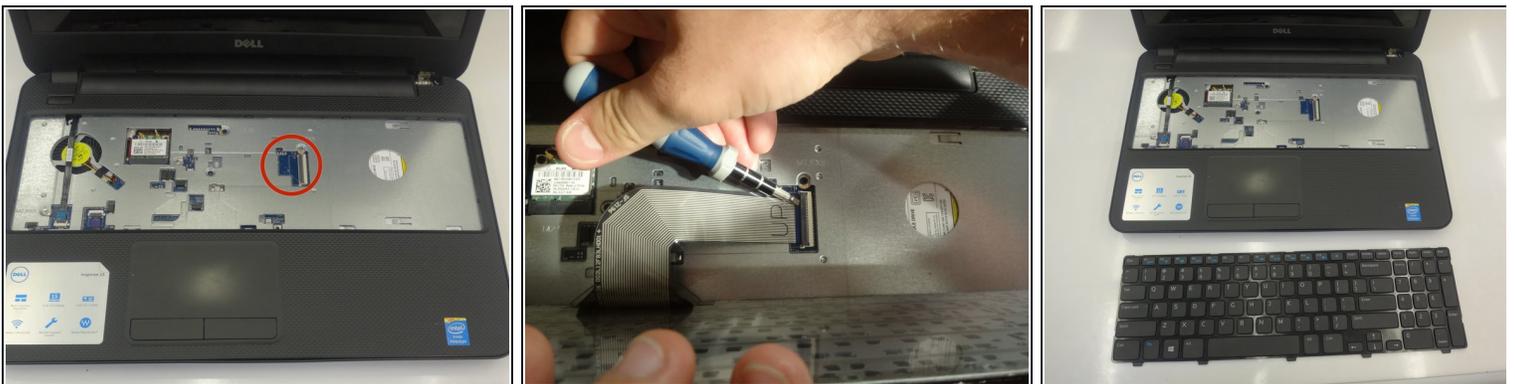
- Before flipping the laptop right-side up, remove screws holding the back plate to the laptop frame
- Remove the backplate screws using a phillips head PH0 screwdriver (11).
- Remove the screws located underneath the battery and access panel using the same phillips head PH0 screwdriver (3).

Step 2 — Removing the Keyboard



- Flip the laptop right-side-up
- Using a spudger, separate the keyboard from the laptop frame.
- Using fingers to remove the keyboard from the laptop frame, be careful not to damage the keyboard cable.

Step 3 — Disconnecting the Keyboard Cable



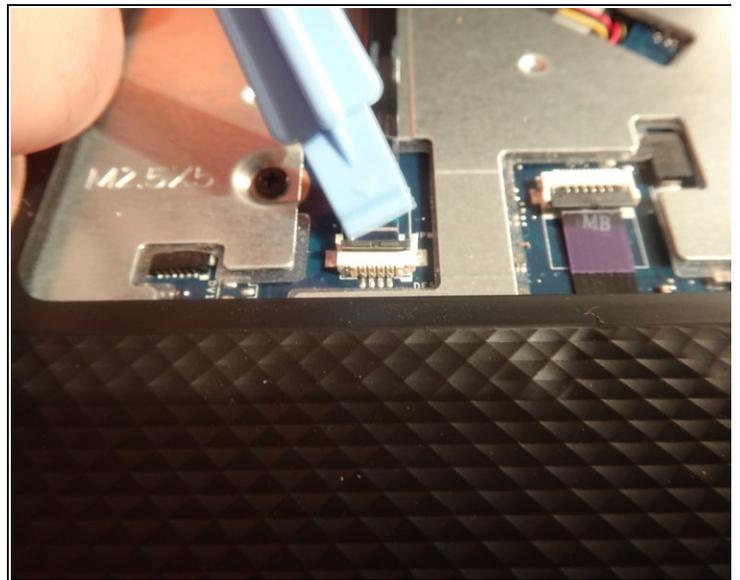
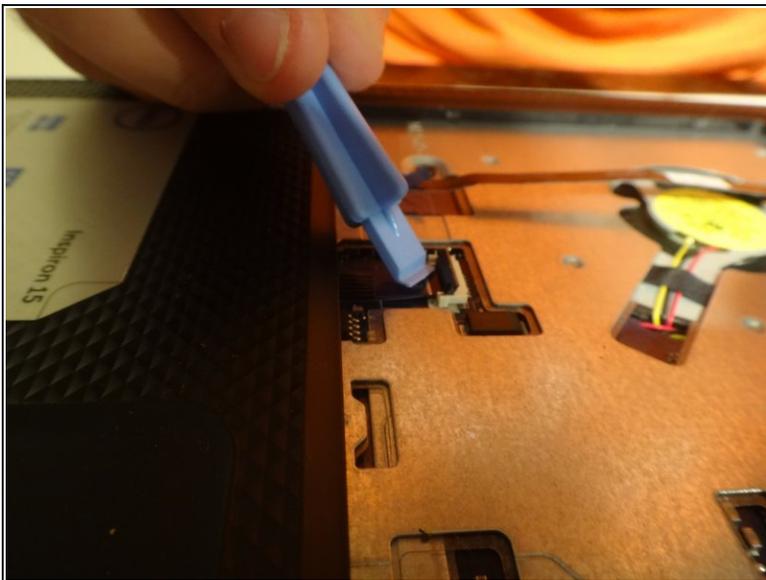
- To disconnect the keyboard, locate the keyboard cable locking mechanism.
- Open the locking mechanism by gently pulling up.
- Slide out the keyboard cable from the interface to separate the keyboard from the laptop.

Step 4 — Underneath the Keyboard



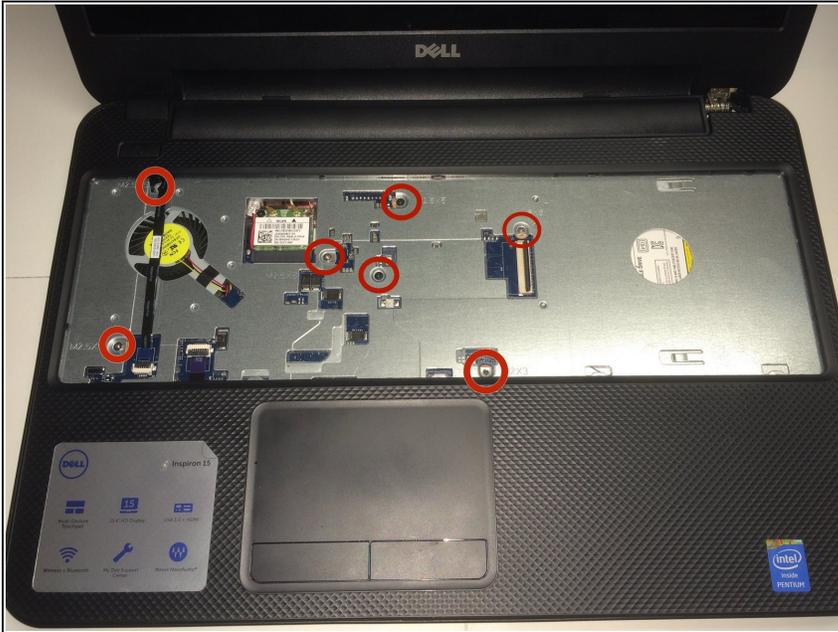
- Locate the wireless card location underneath the removed keyboard.
- Disengage the antenna cables connecting the laptop to the wireless card.
- Using a phillips head PH0 screwdriver, unscrew the single screw holding the wireless card to the laptop frame.
- Remove the wireless card.

Step 5 — Disconnect the Palmrest Cables



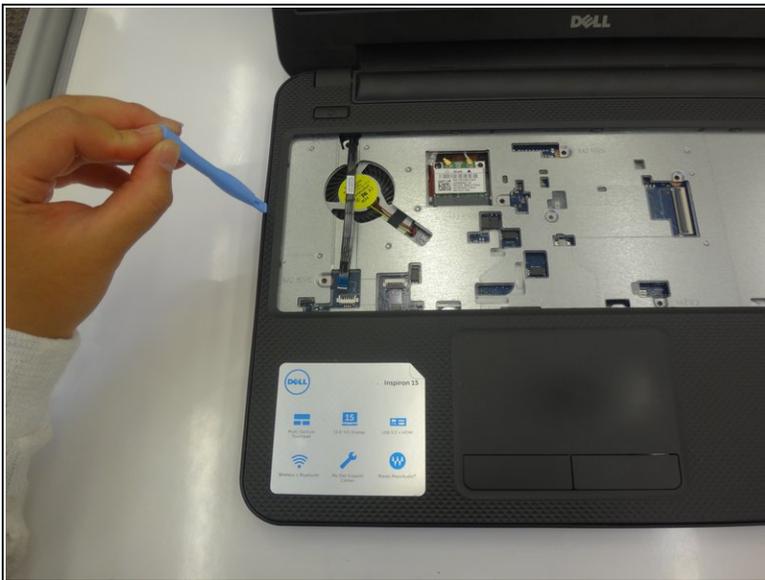
- Unplug the palmrest cables, which are denoted by a blue and a purple marking.
- To remove, lift up the locking tab and pull the cables from their laptop interface.

Step 6 — Removing Palmrest Screws



- Remove the four 2.5 mm by 5 mm screws underneath the keyboard plate using a phillips head PH0 screwdriver.
- Remove the three 2 mm by 3 mm screws underneath the keyboard plate using a phillips head PH0 screwdriver.

Step 7 — Disconnecting the Palmrest



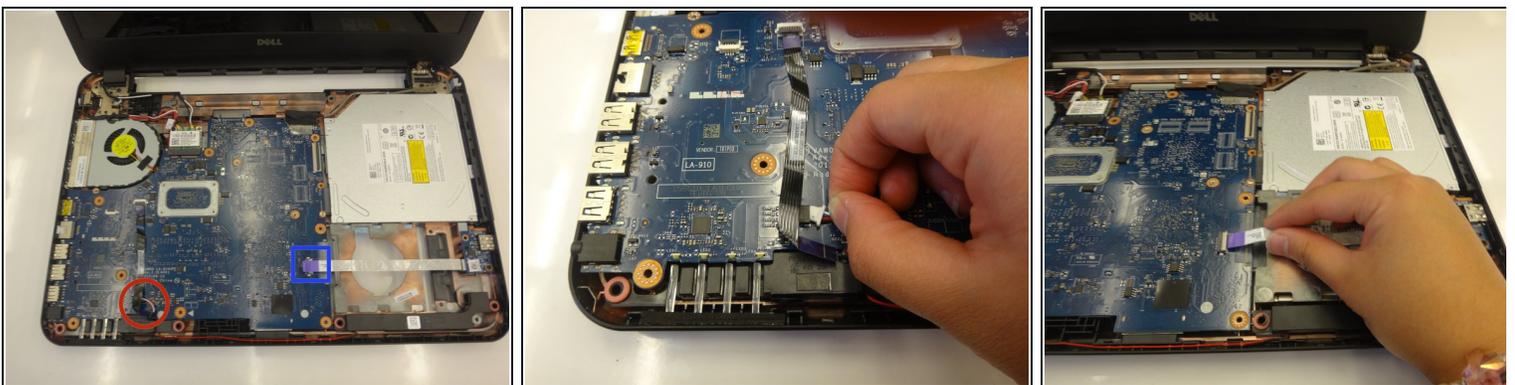
- Using a spudger, separate the palmrest from the base of the laptop. This interface is located around the equator of the laptop.
- Use your fingers to completely remove the palmrest from the laptop base.

Step 8 — Cables to Separate from the Motherboard 1



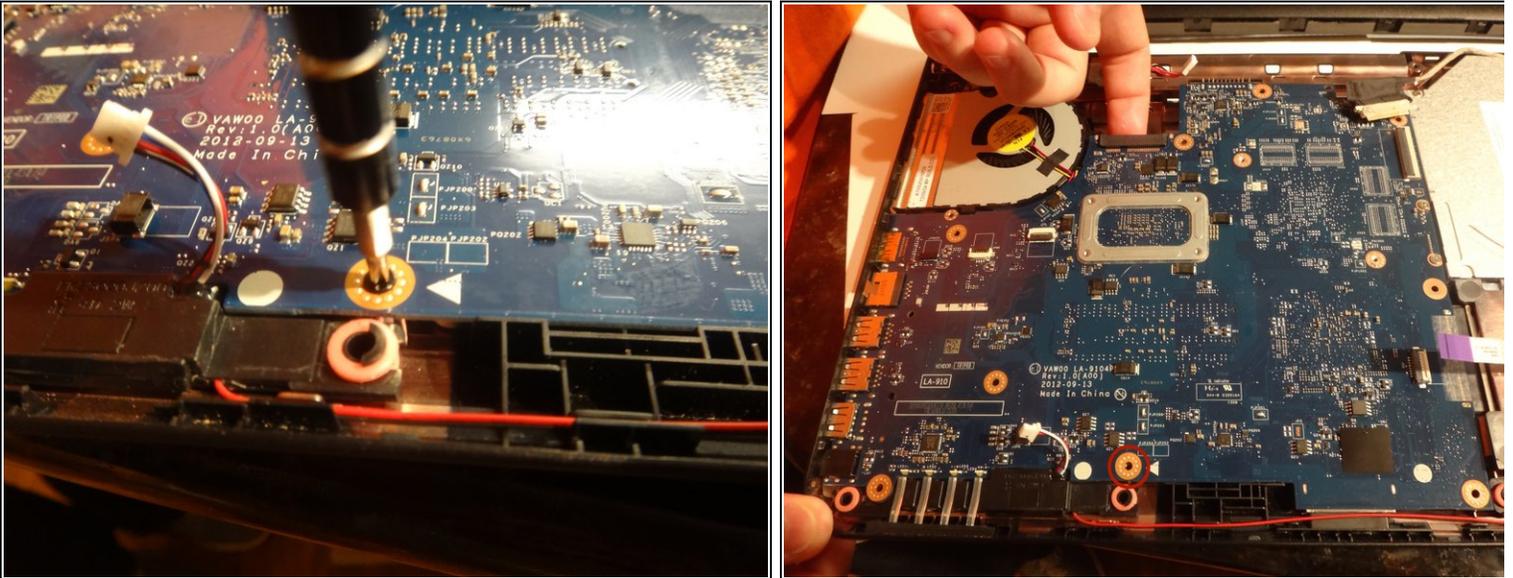
- First, remove the power cable, located in the upper left hand side of the laptop. This can be removed using forceps or using your fingers.
- Second, remove the LCD cable located in the upper center of the laptop. This cable must be removed using the same unlocking procedure as the palmrest cables used in step 6.
- ⓘ The first image shown has the wireless card still connected, however, for removal of the power cable, removing the wireless card is necessary in revealing the power cable. *See second image.*

Step 9 — Cables to Separate from the Motherboard 2



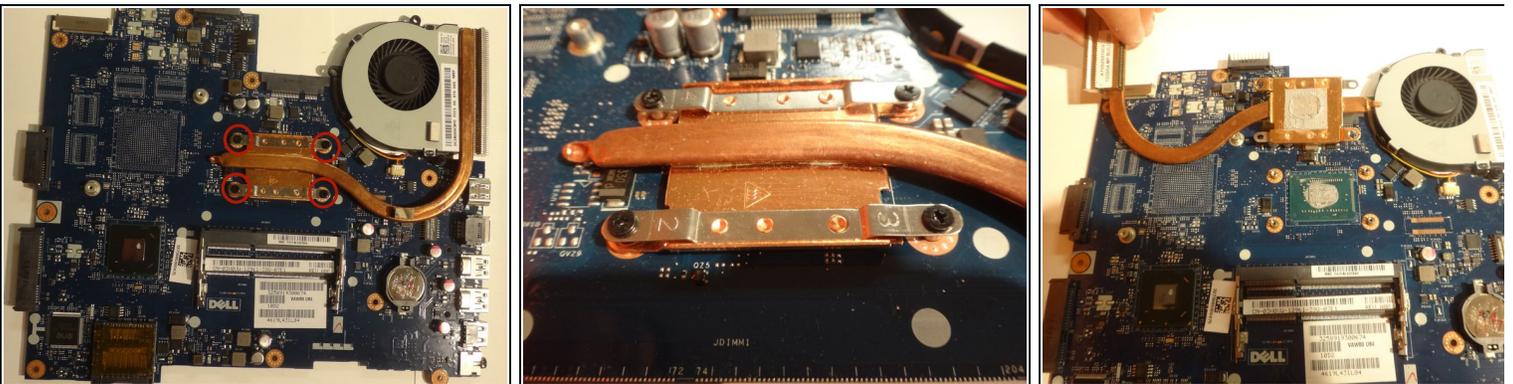
- Third, unplug the speaker cables using forceps or by using your fingers.
- Fourth, unplug the final cable, denoted by a purple plastic flag. This cable uses the same locking mechanism as the palmrest cables seen in step 6.
- ⓘ The final cable is shown detached in the first image.

Step 10 — Remove the motherboard



- Unscrew the motherboard from the laptop frame using a phillips head PH0 screwdriver.
- Then, use your fingers to remove the motherboard from the laptop.

Step 11 — Removing the Heat Sink



- Flip the mother board, so that the heat sink attachment point is visible.
- Remove the four screws that are attaching the heat sink (copper) to the motherboard. Use a phillips head PH0 screwdriver to do this.
- Clean the interface between the motherboard and the heat sink.
- Attach a new heat sink to the motherboard, make sure to reapply the thermal compound (grey material), lock into place by reattaching screws.

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