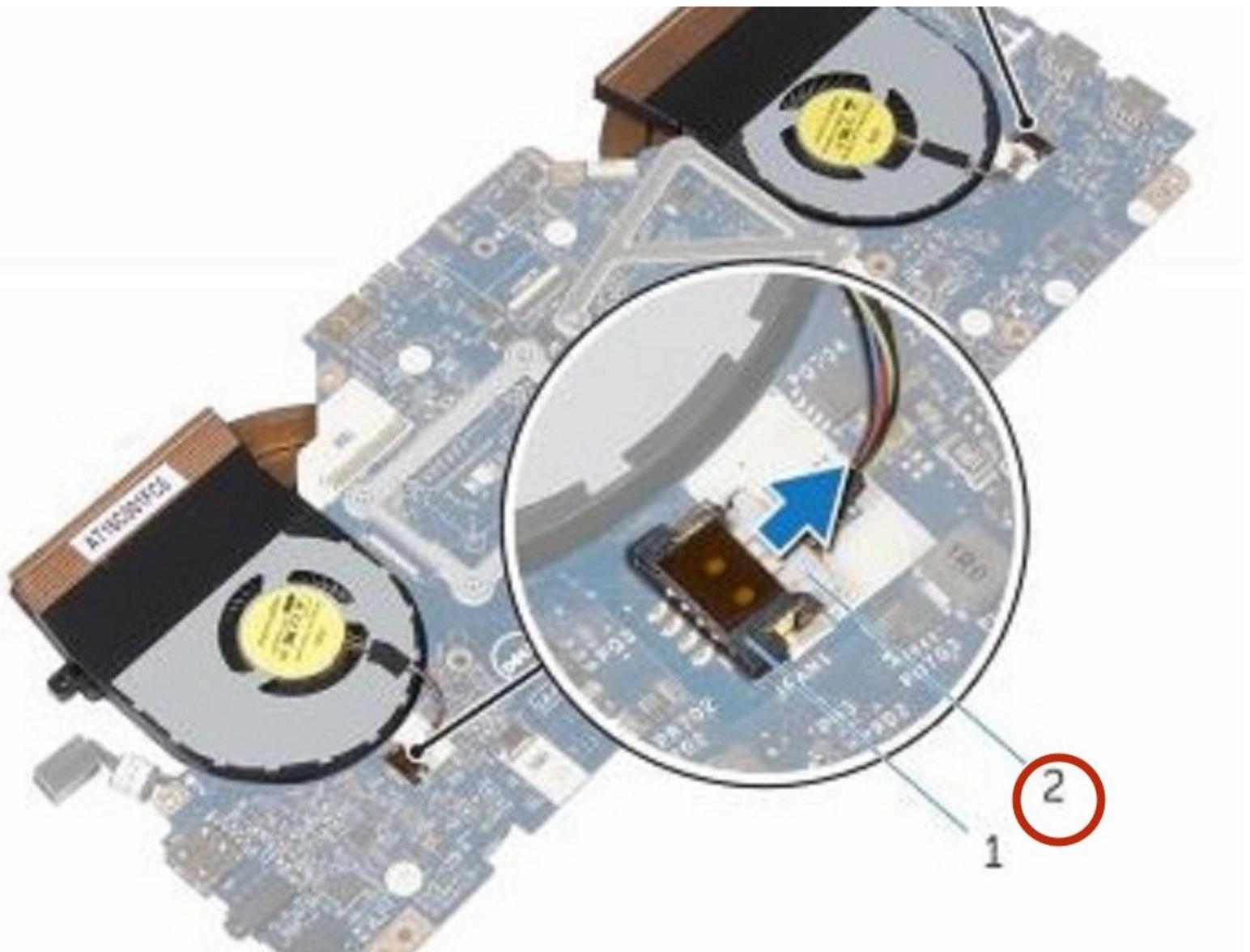




# Dell Alienware 13 Heart-Sink Assembly Replacement

Written By: Terrence15



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## INTRODUCTION

In this guide, we will show you how to remove and replace the heart sink assembly.

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### TOOLS:

- [Heavy-Duty Spudger](#) (1)
  - [Phillips #1 Screwdriver](#) (1)
-

## Step 1 — Base Panel



**⚠** Working on an electrical device while plugged in can cause injury due to electrical shock. Ensure that all external power is disconnected from the device.

- Close the device and turn the device over.

## Step 2



- Remove (2) 5 mm Phillips head screws attaching the small access panel to the base using a Phillips # 1 screwdriver.

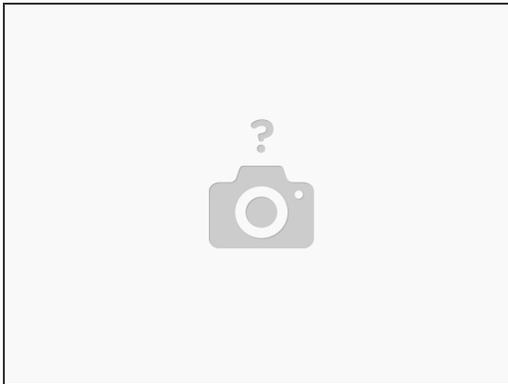
**i** The (2) screws are attached to the base panel with retaining clips and won't completely detach from the panel.

### Step 3



- Remove the small access panel using a heavy duty spudger.

### Step 4 — Caution



- ⚠ CAUTION: Solid-state drives are fragile. Exercise care when handling the hard drive.
- ⚠ CAUTION: To avoid data loss, do not remove the solid-state drive while the computer is in sleep or on state.

## Step 5 — Pull Tab



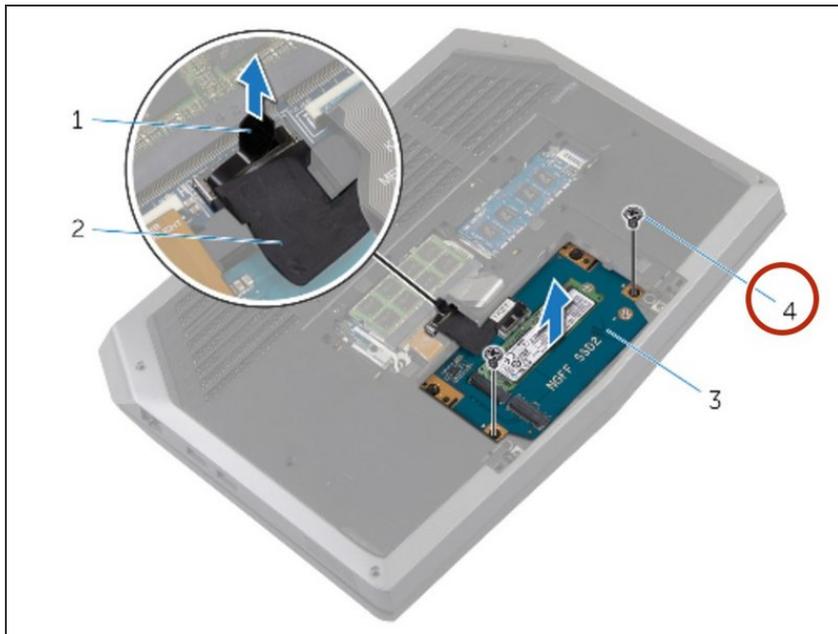
- Using the pull tab, pivot the solid-state drive bracket and peel off the bracket from the tabs on the computer base.

## Step 6 — Disconnecting the State Drive



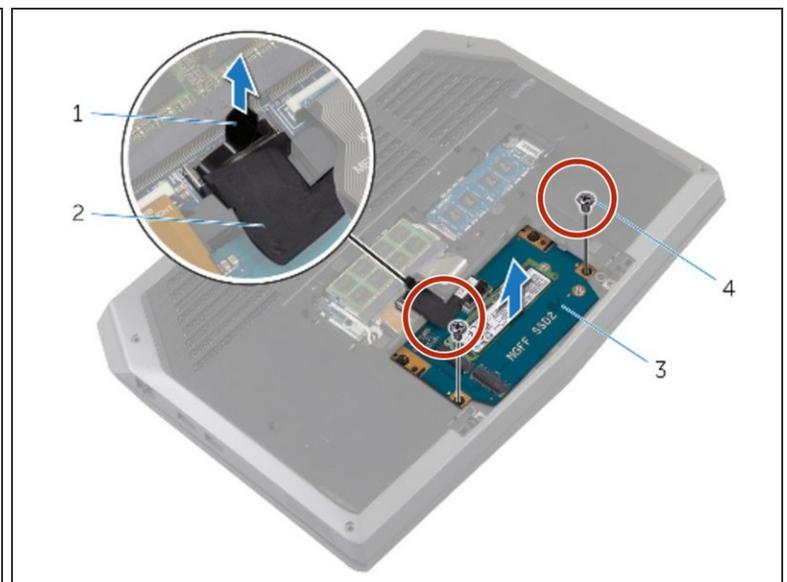
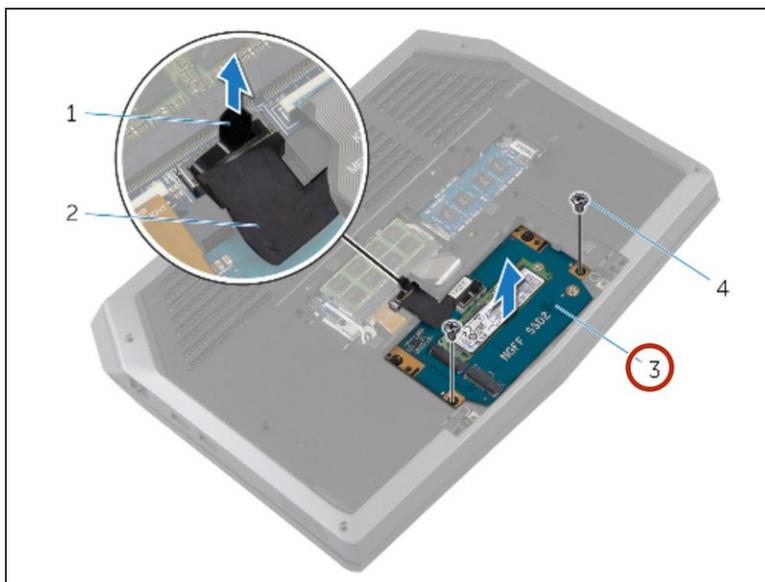
- Using the pull tab, disconnect the solid-state drive cable from the system board.

## Step 7 — Remove Screws



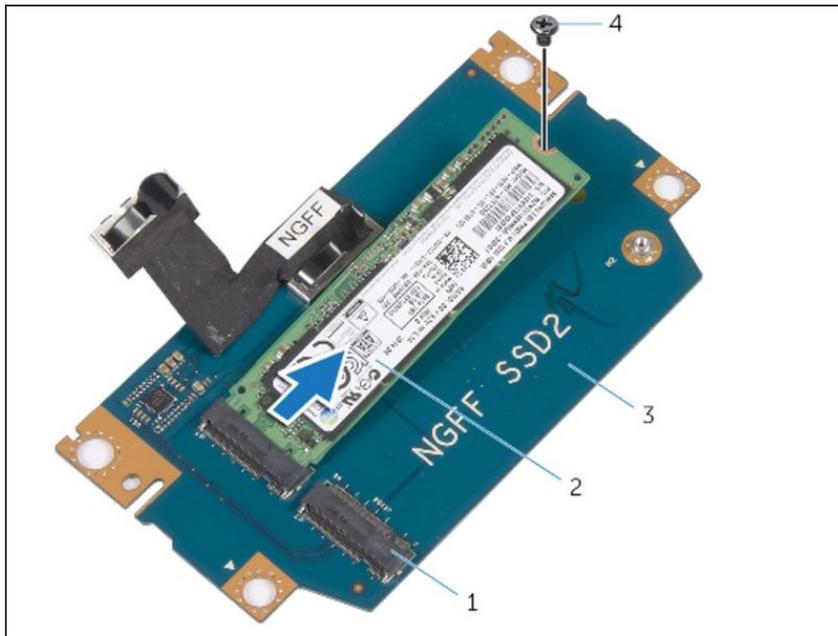
- Remove the screws that secure the solid-state drive assembly to the computer base.

## Step 8 — Solid-State Drive Assembly Lift



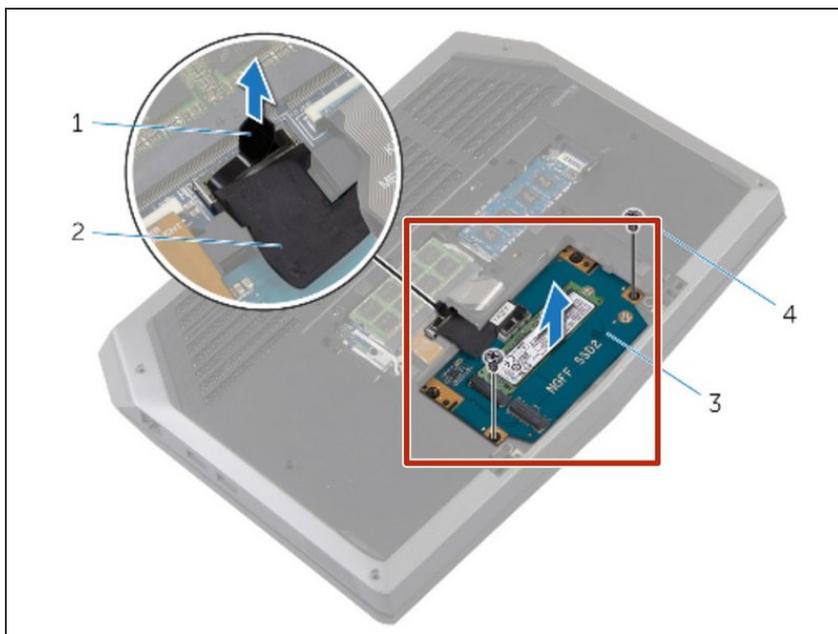
- Lift the solid-state drive assembly off the computer base.
- Make sure the screws are off the solid-state assembly.

## Step 9 — Slide and Lift



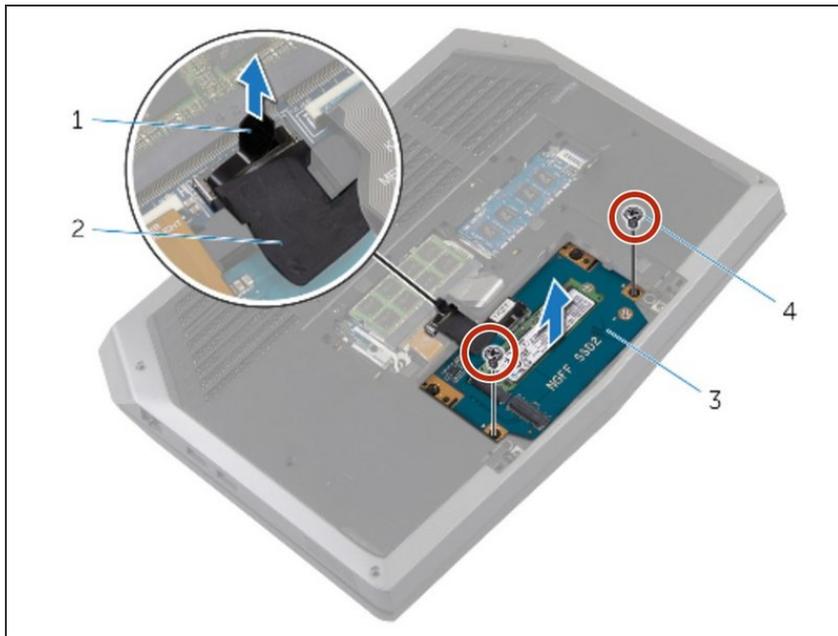
- Slide and lift the solid-state drive off the solid-state assembly.

## Step 10 — Replacing the Solid-State Drive



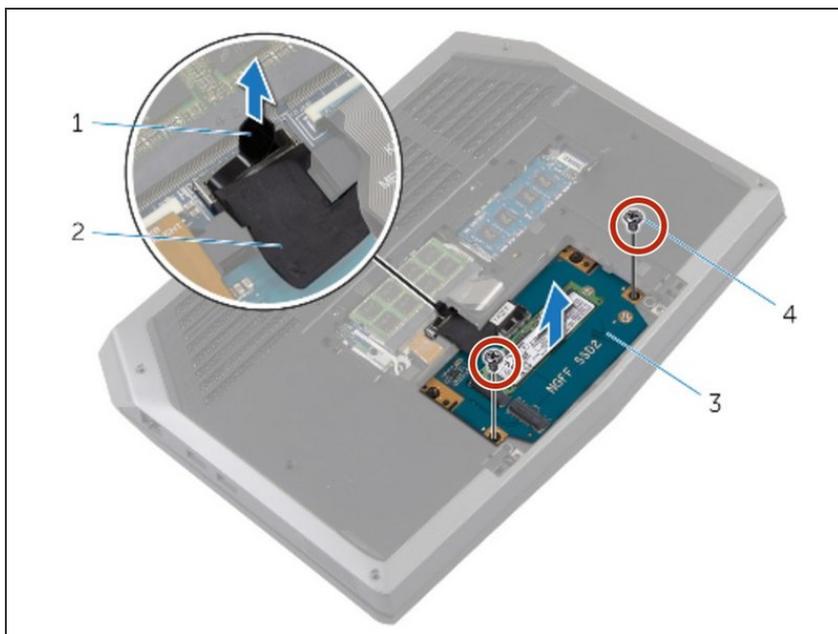
- ⚠ CAUTION: Solid-state drives are fragile. Exercise care when handling the hard drive.
- Slide the new solid-state drive into the solid-state drive assembly.

## Step 11 — Replace the Screw



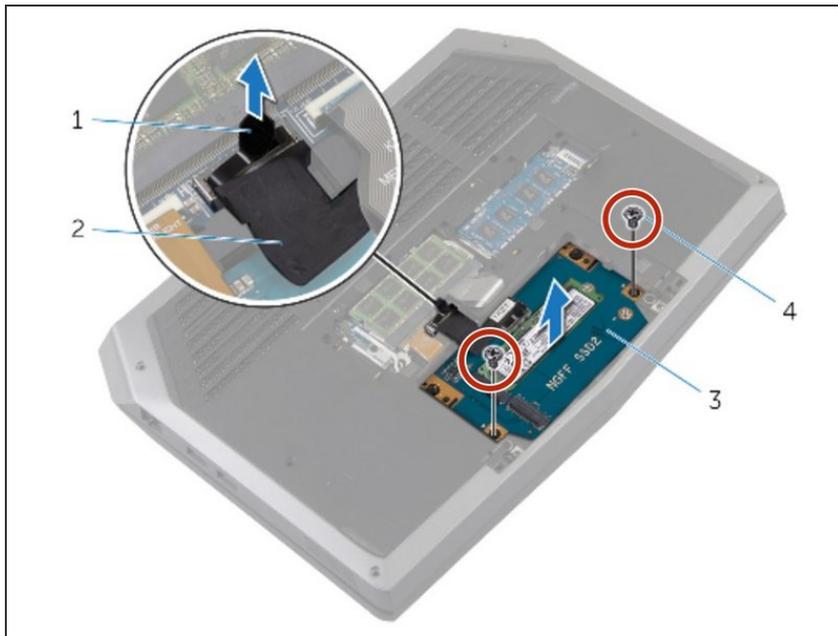
- Replace the screw that secures the solid-state drive assembly with the screw holes on the computer base.

## Step 12 — Screw Align



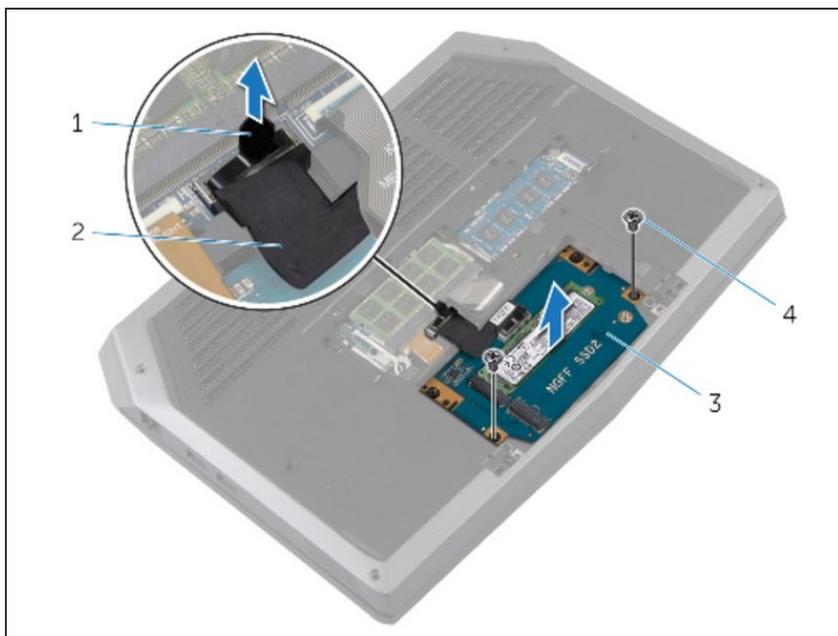
- Align the screw holes on the solid-state drive assembly with the screw holes on the computer base.

## Step 13 — Screw Replacement



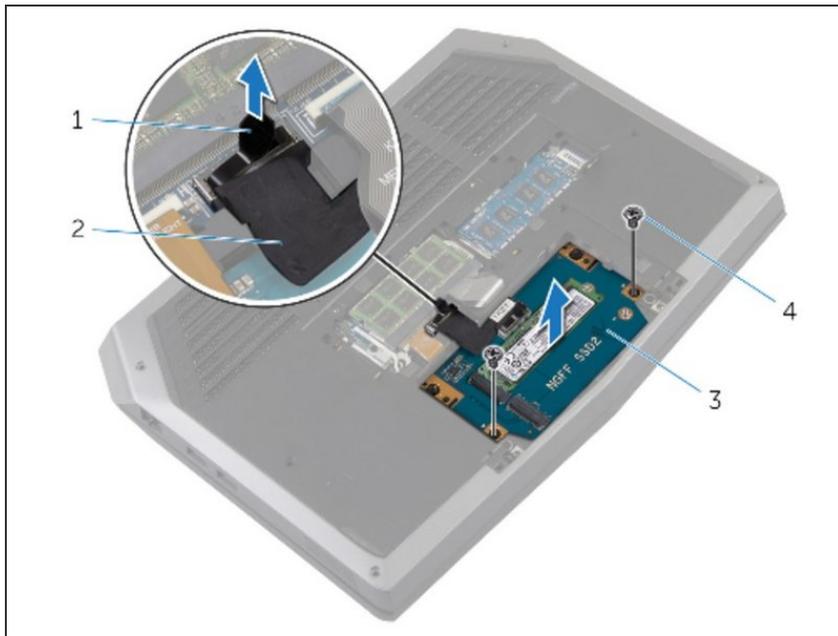
- Replace the screws that secure the solid-state drive assembly to the computer base.

## Step 14 — Connecting the Drive



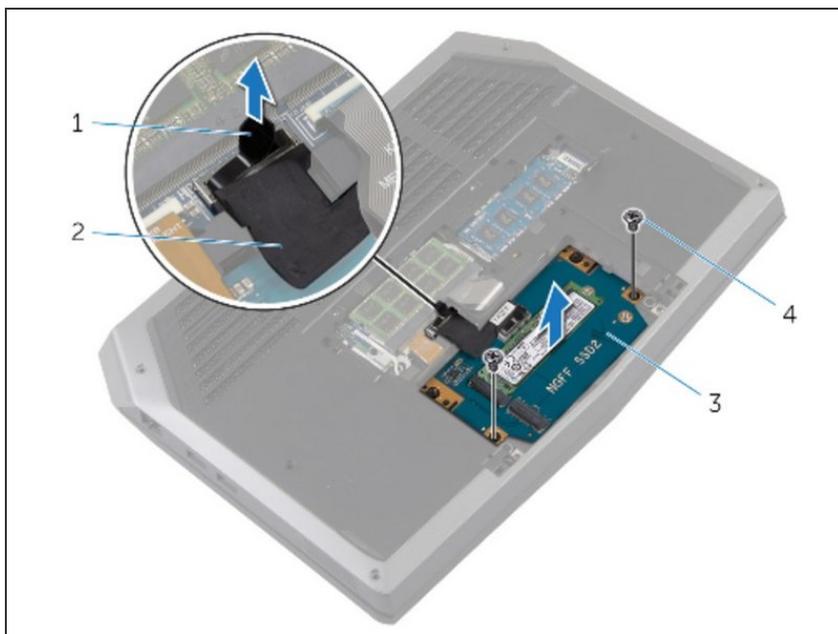
- Connect the solid-state drive cable to the system board.

## Step 15 — Aligning Screws



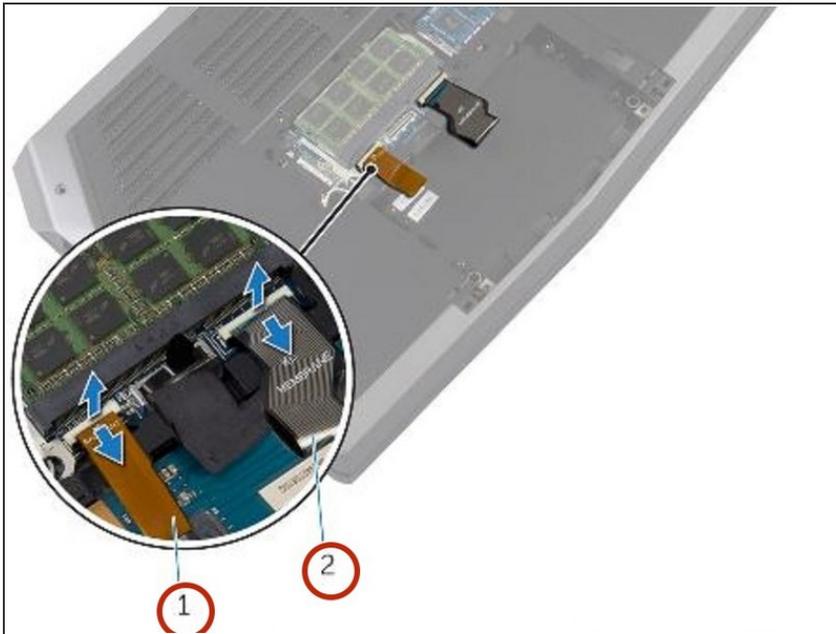
- Align the screws on the solid-state drive bracket with the screw holes on the solid-state drive assembly.

## Step 16 — Replacing Screws



- Replace the screws that secure the solid-state drive bracket to the solid-state drive assembly.

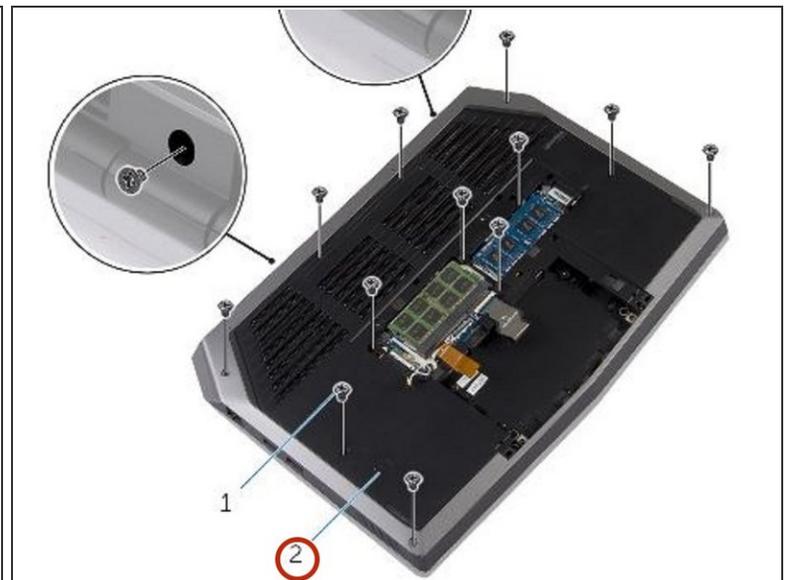
## Step 17 — Disconnecting the Keyboard



**⚠ WARNING:** Before working inside your computer, read the safety information that shipped with your computer and follow the steps in [Before Working Inside Your Computer](#). After working inside your computer, follow the instructions in [After Working Inside Your Computer](#).

- Lift the latches and disconnect the keyboard and keyboard-backlight cables from the system board

## Step 18 — Removing the Screws



- Remove the screws that secure the palm-rest assembly to the computer base.

## Step 19 — Popping out the Palm-Rest Assembly



- Lift the computer base slightly and push the release tabs on the palm-rest assembly until it pops out.

## Step 20 — Turn the Computer Over



- Turn the computer over and open the display as far as possible.

## Step 21 — Prying the Edges



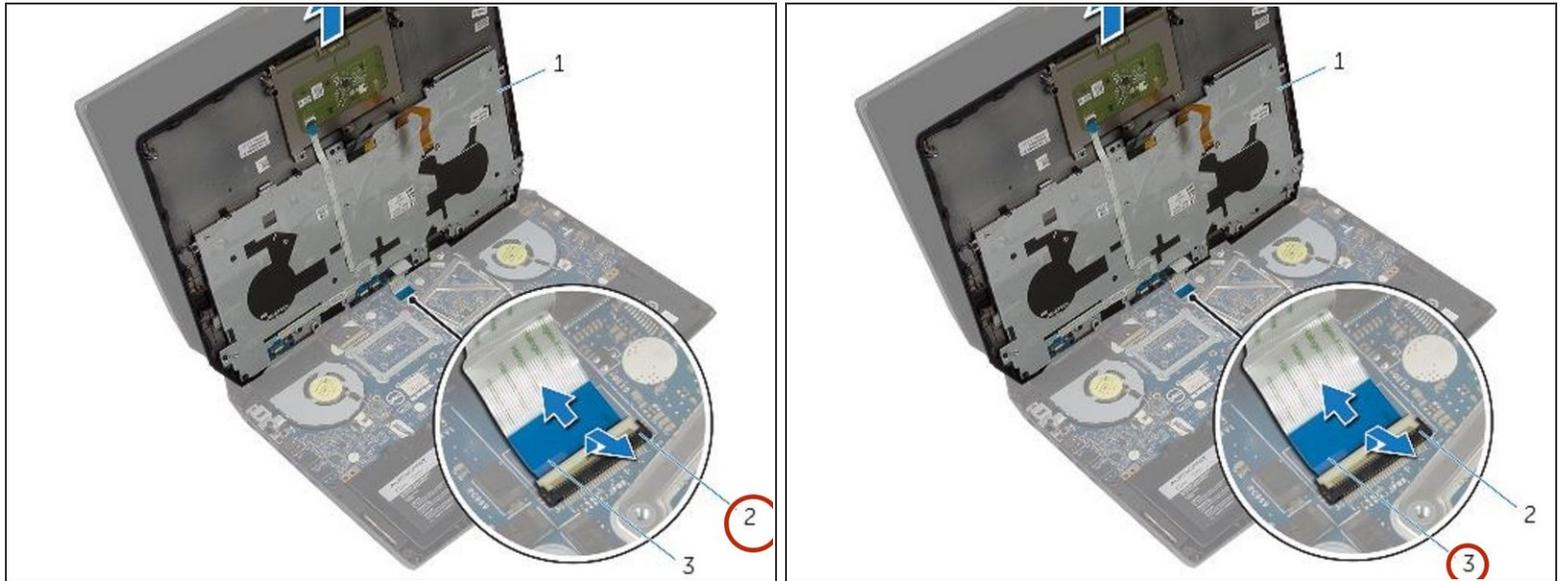
- Using a plastic scribe, pry up along the edges of the palm-rest assembly.

## Step 22 — Lifting the Palm-Rest Assembly



- Gently lift the palm-rest assembly and turn it over.

## Step 23 — Disconnecting the Power-Board Cable



- Lift the connector latch and disconnect the power-button board cable from the system board.

## Step 24 — Removing Parts



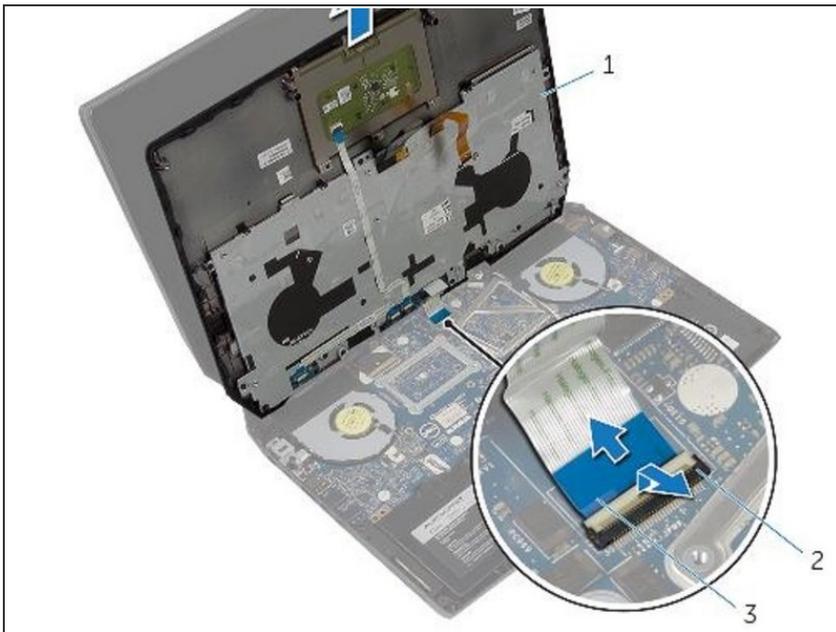
- Remove the Keyboard.
- Remove the power-button board.
- Remove the status-light board.
- Remove the touchpad.

## Step 25 — Replacement



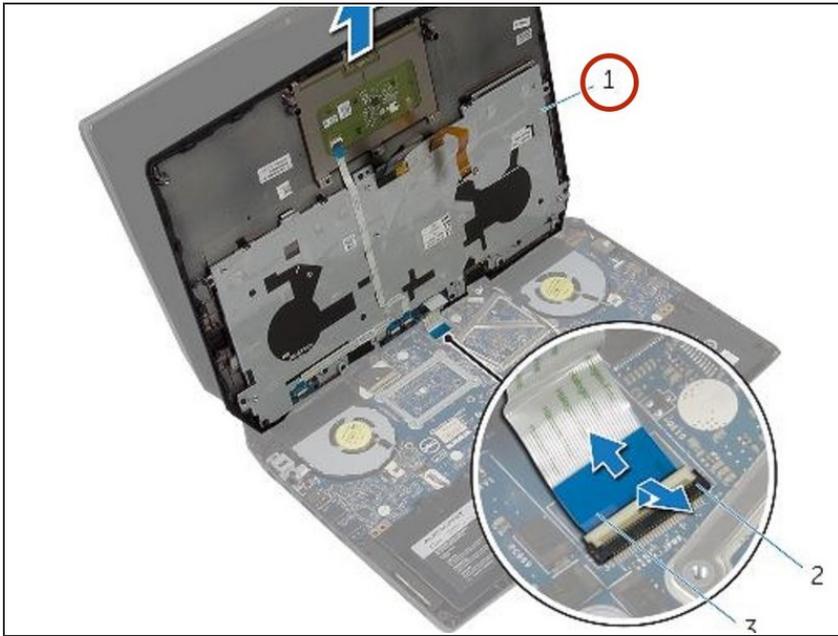
- Replace the touchpad.
- Replace the status-light board.
- Replace the power-button board.
- Replace the keyboard.

## Step 26 — Connecting the Power-Button Board Cable



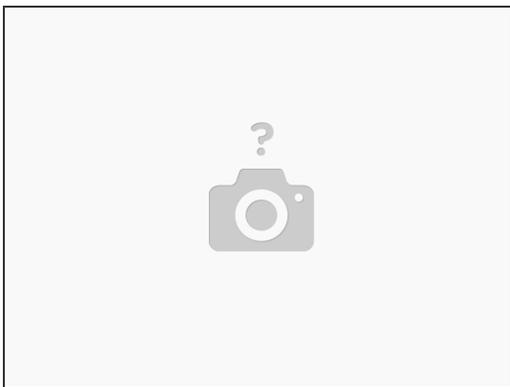
- Connect the power-button board cable to the system board.

## Step 27 — Aligning the Palm-Rest Assembly.



- Align the palm-rest assembly on the computer base and snap it into place.

## Step 28 — Closing the Display and Turning Over the PC



- Close the display and turn the computer over.

## Step 29 — Replacing Screws



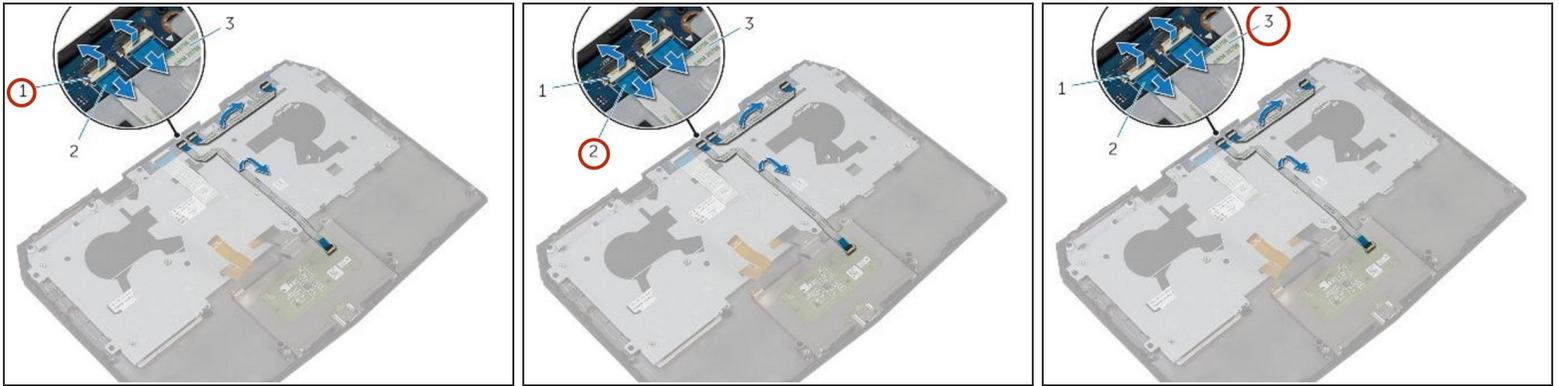
- Replace the screws that secure the palm-rest assembly to the computer base.

## Step 30 — Connect the Keyboard Cable



- Connect the keyboard cable and the keyboard-backlight cable to the system board.

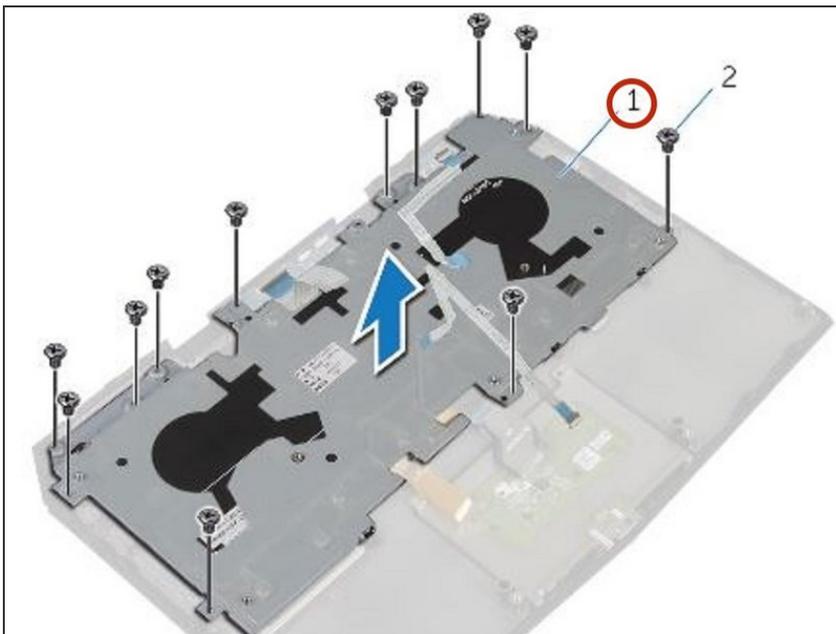
## Step 31 — Disconnecting the Touchpad Cable



**⚠ WARNING:** Before working inside your computer, read the safety information that shipped with your computer and follow the steps in [Before Working Inside Your Computer](#). After working inside your computer, follow the instructions in [After Working Inside Your Computer](#).

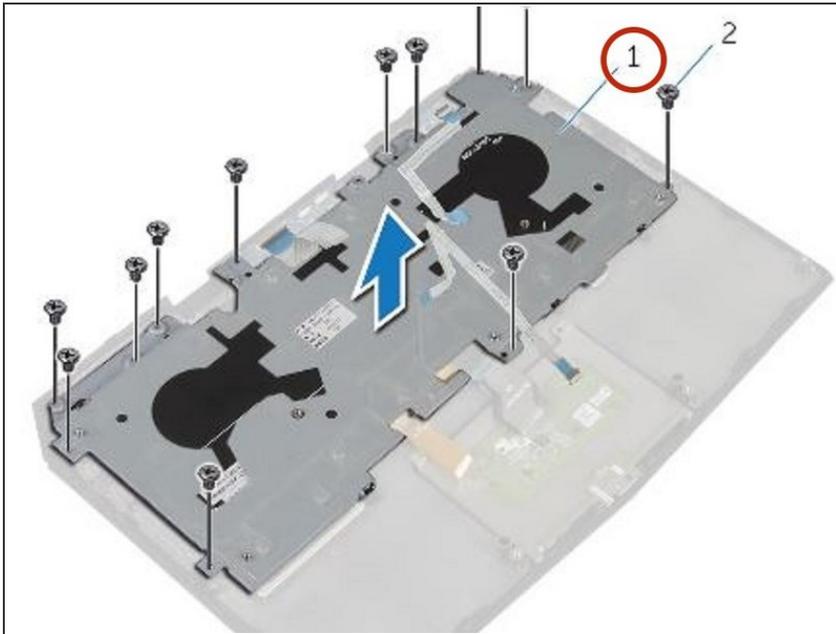
- Lift the connector latches and disconnect the touchpad cable and the status-light cable from the power-button board.

## Step 32 — Peeling the Cables



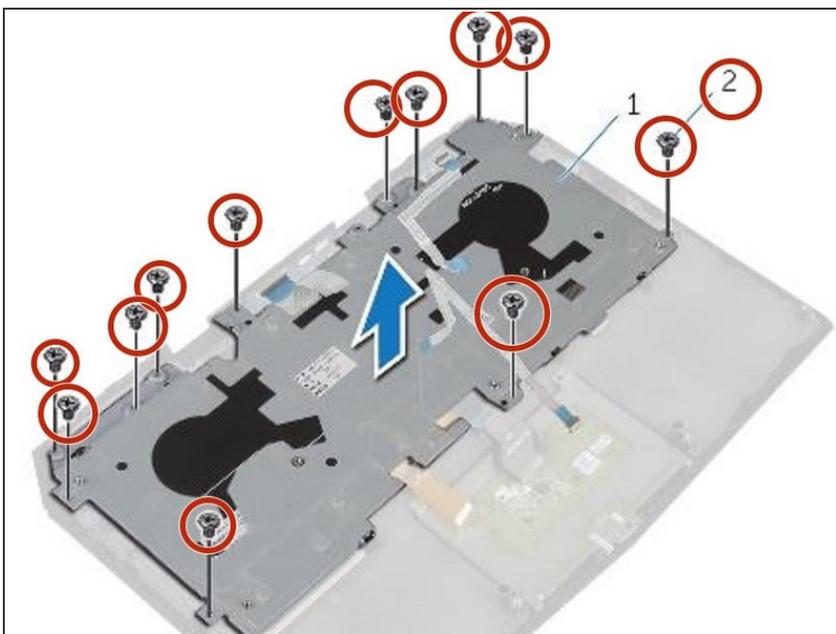
- Peel the touchpad cable and status-light cable off the keyboard bracket.

### Step 33 — Removing the Keyboard Bracket



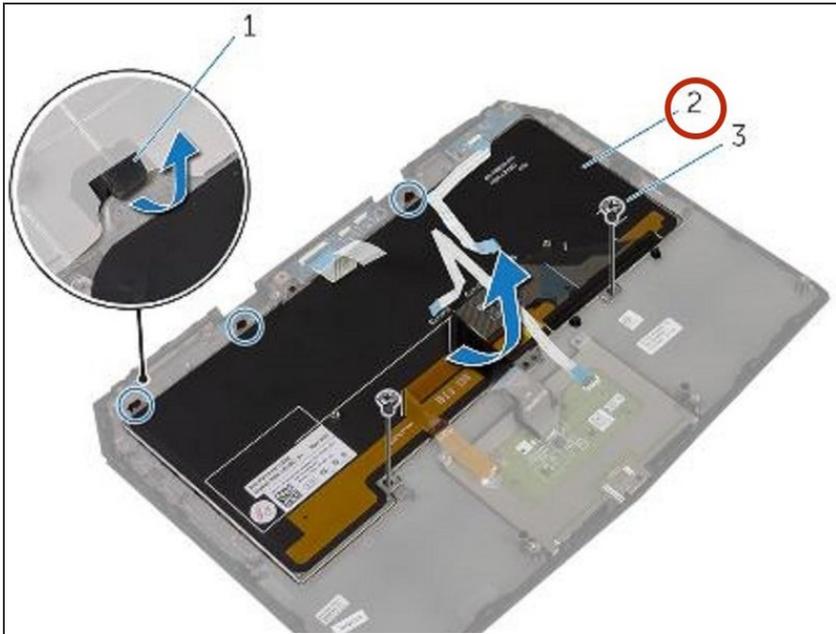
- Lift the keyboard bracket off the palm-rest assembly.

### Step 34 — Remove the Screws



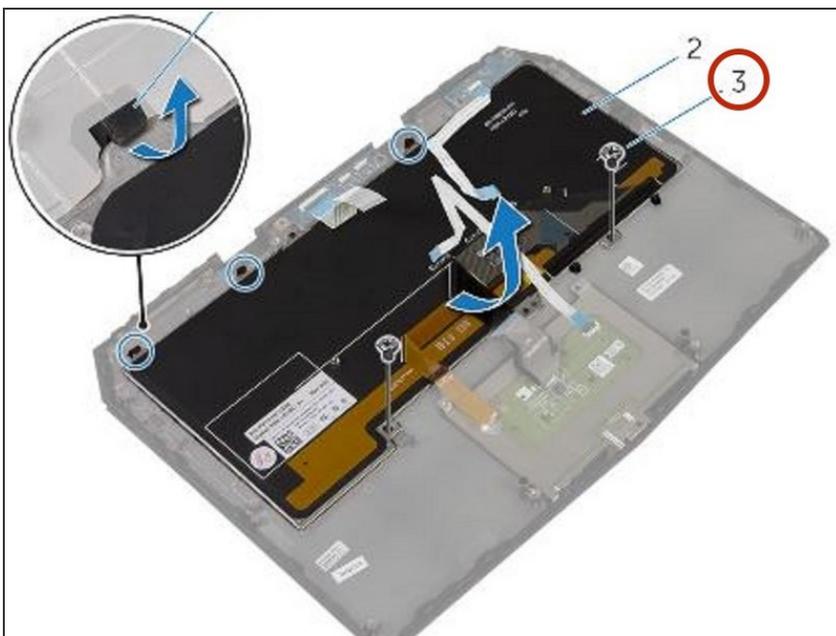
- Remove the screws that secure the keyboard to the palm-rest assembly.

## Step 35 — Lifting the Keyboard



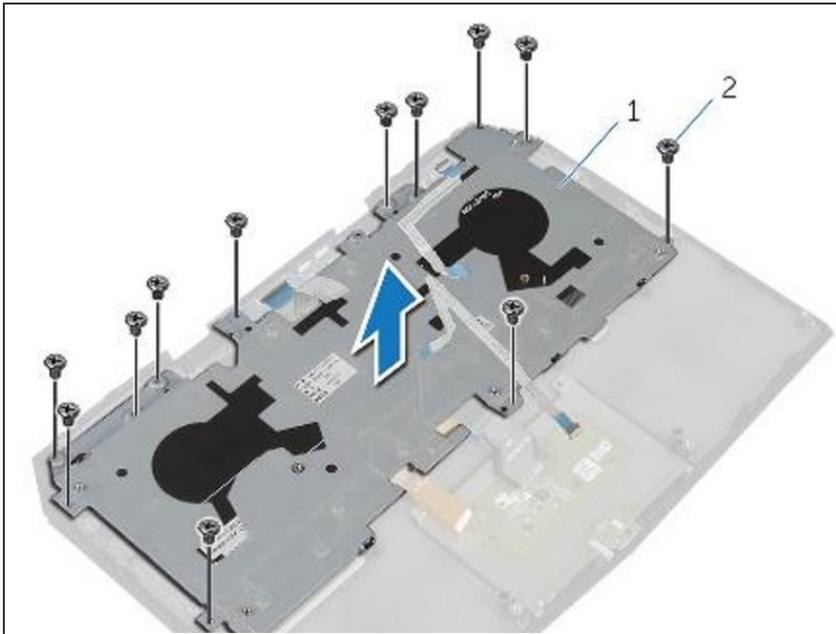
- Slide and lift the keyboard, along with the cables, off the palm-rest assembly.

## Step 36 — Aligning the Screw Holes



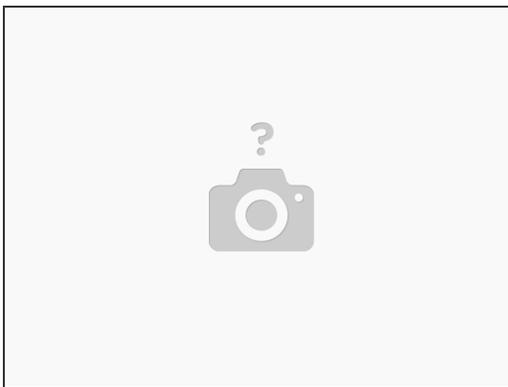
- Align the screw holes on the **NEW** keyboard with the screw holes on the palm-rest assembly.

## Step 37 — Replacing Screws



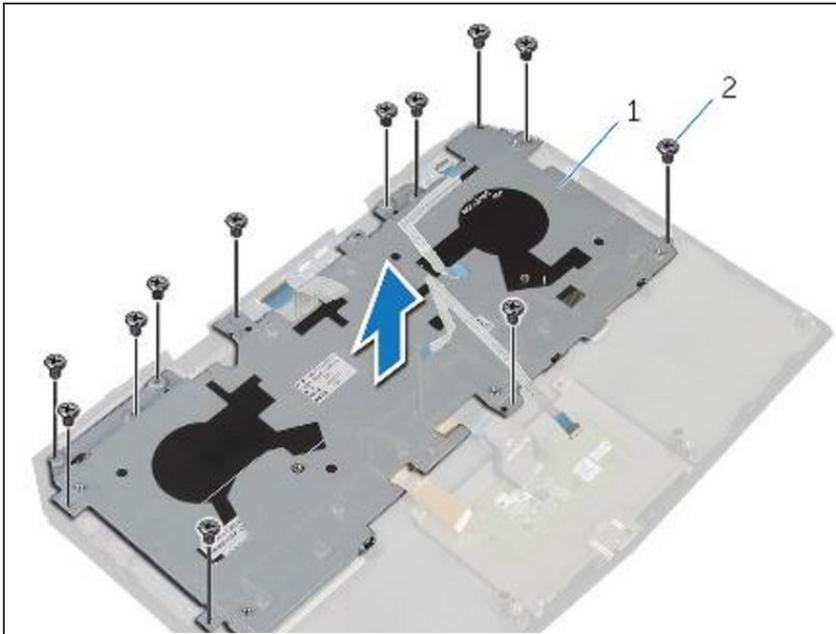
- Replace the screws that secure the keyboard to the palm-rest assembly.

## Step 38 — Align the Screw Holes



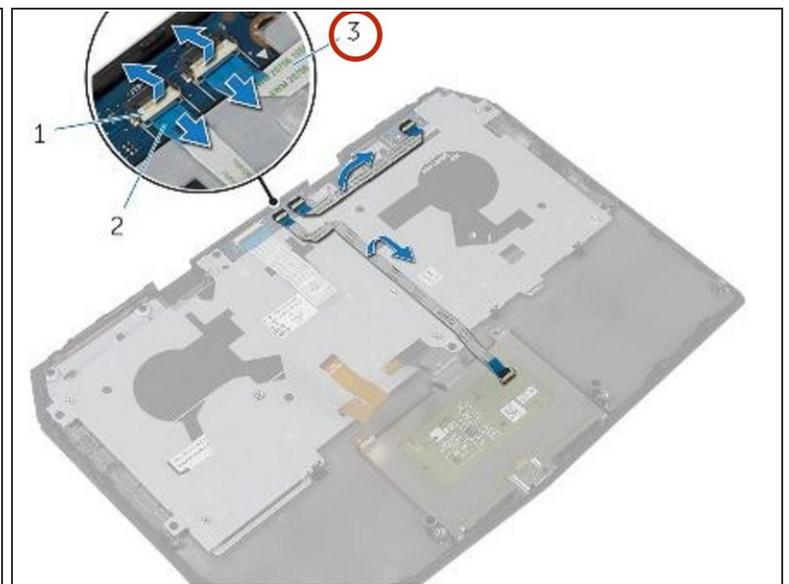
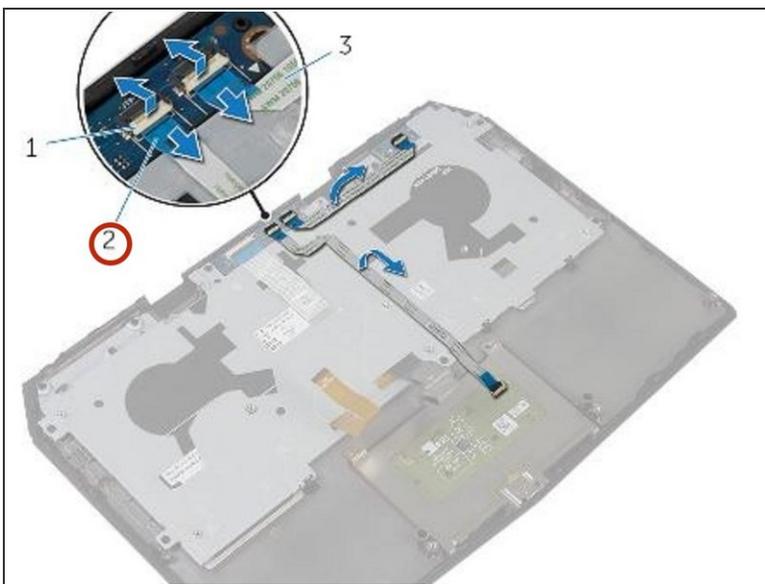
- Align the screw holes on the keyboard bracket with the screw holes on the palm-rest assembly.

## Step 39 — Replace the Screws



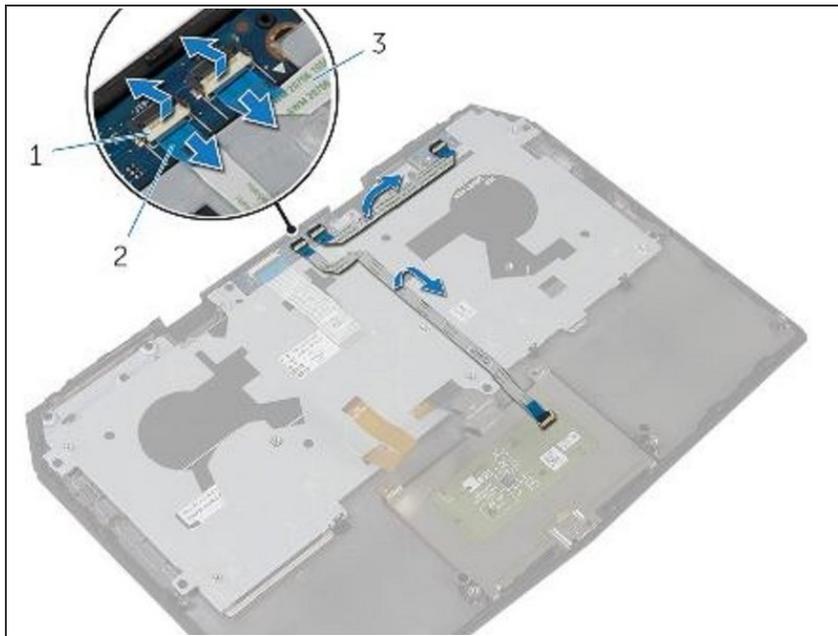
- Replace the screws that secure the keyboard bracket to the palm-rest assembly.

## Step 40 — Adhering the Cables



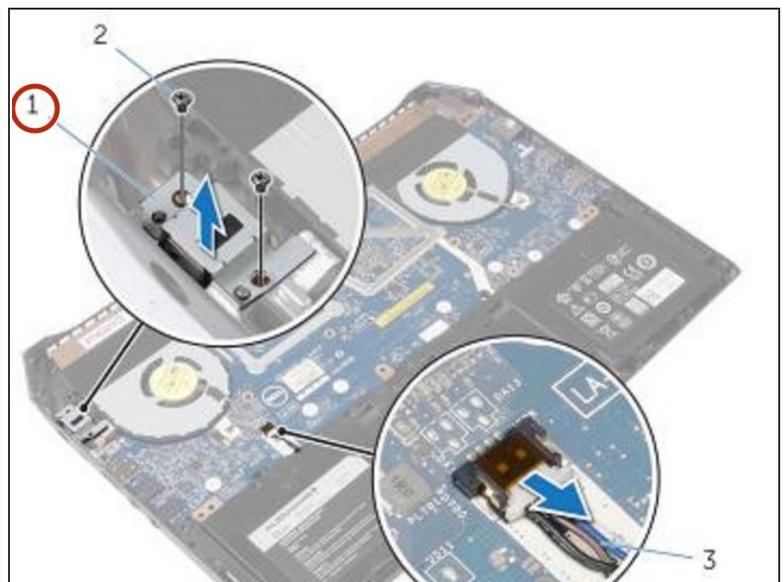
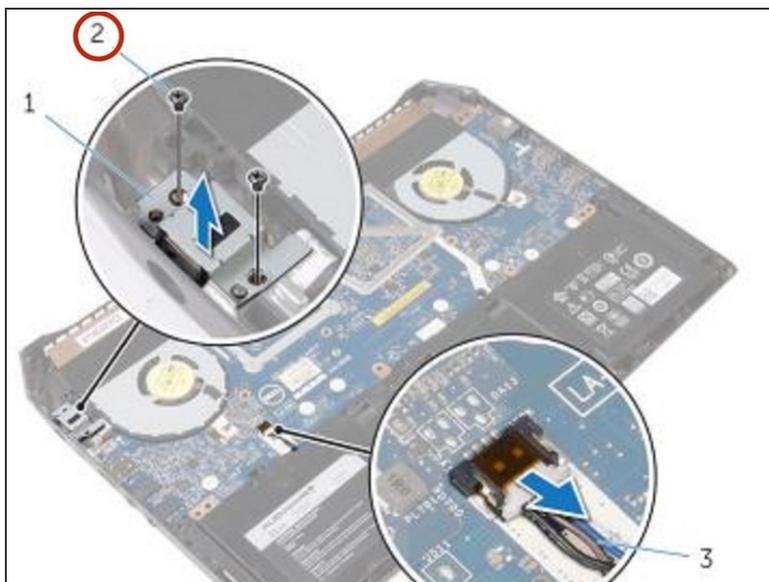
- Adhere the touchpad cable and status-light cable to the keyboard bracket.

## Step 41 — Sliding the Cables



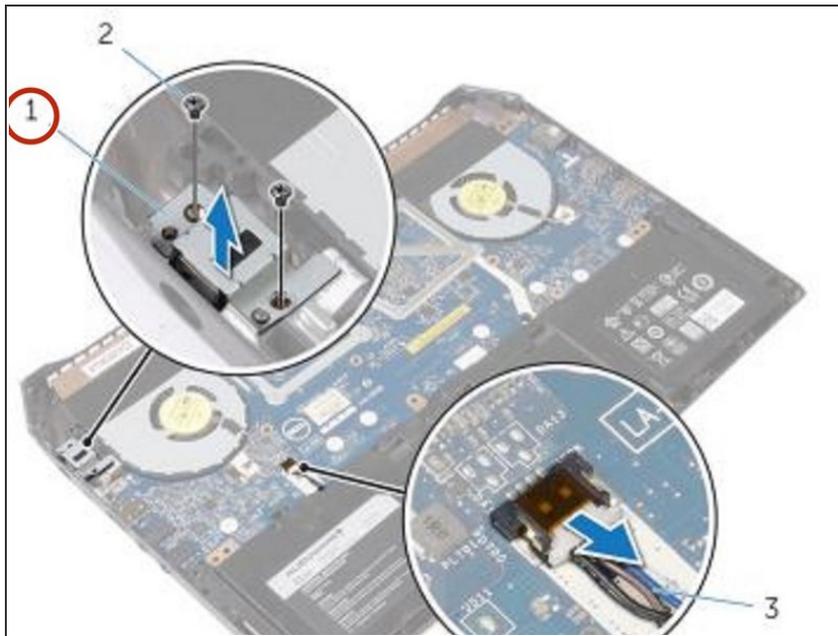
- Slide the touchpad cable and the status-light cable into their respective connectors on the power-button board and press down the latches to secure the cables.

## Step 42 — Remove the Screw



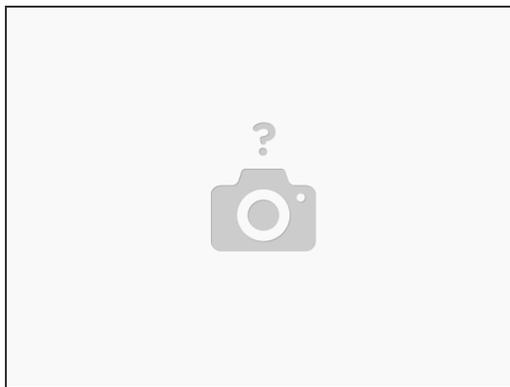
- Remove the screw that secures the power-adaptor port bracket to the power-adaptor port.

### Step 43 — Lift the Power-Adapter



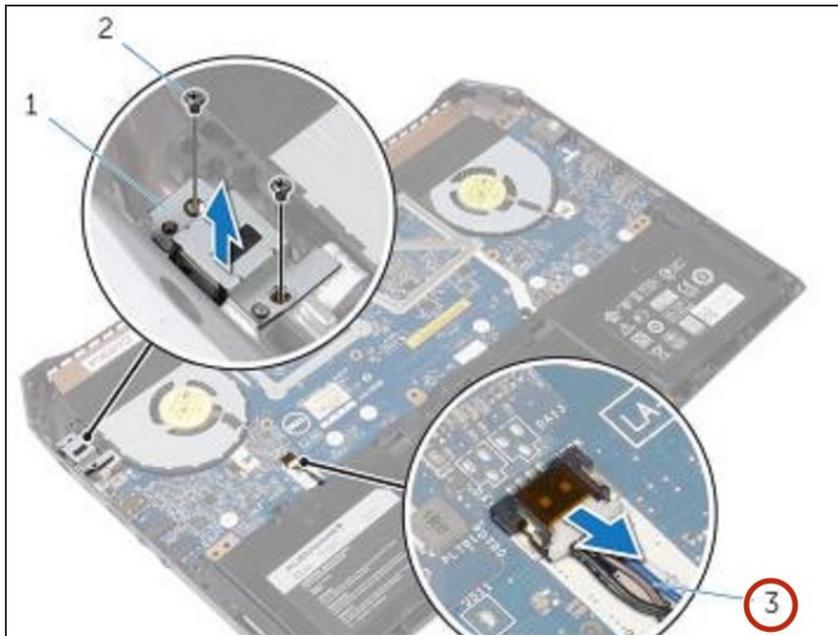
- Lift the power-adapter port bracket off the power-adapter port.

### Step 44 — Release the Power-Adapter Port



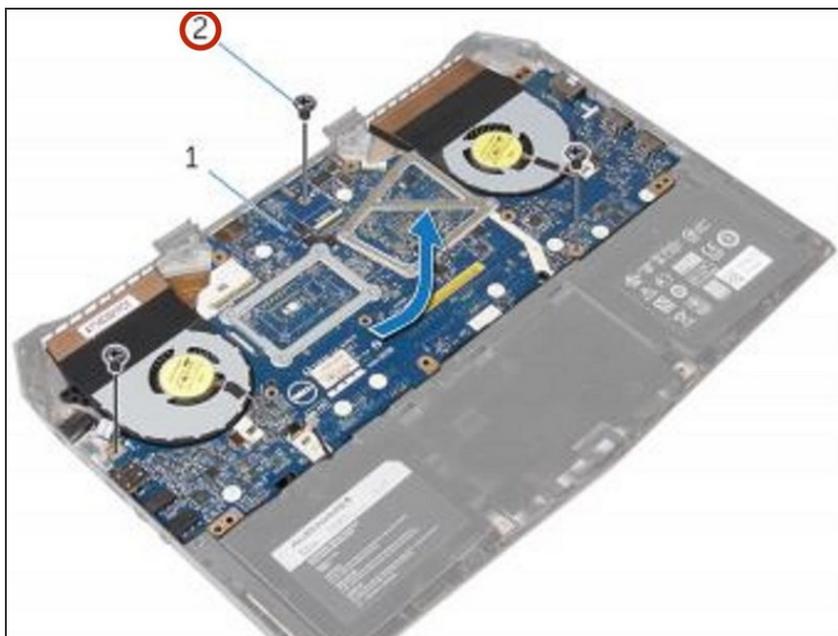
- Release the power-adapter port from the computer base.

## Step 45 — Disconnect the Speaker Cable



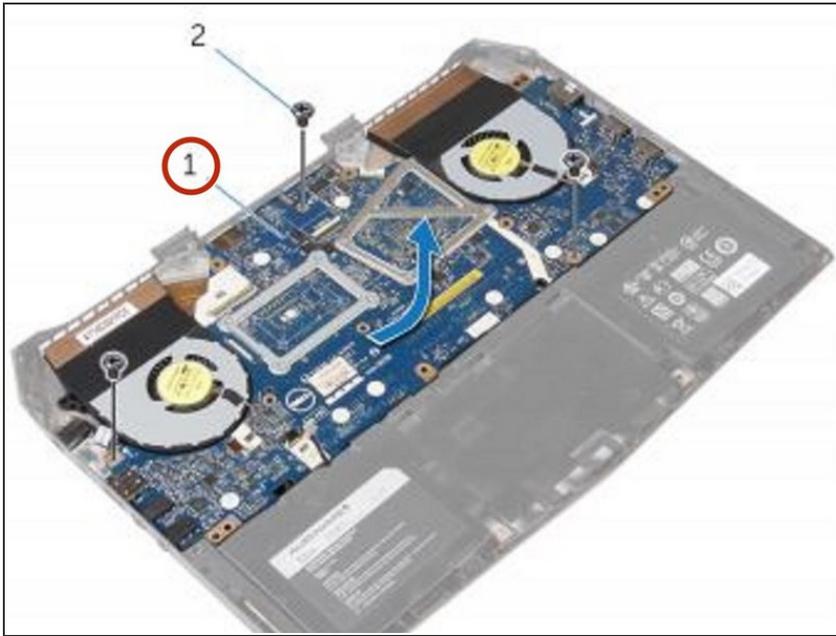
- Disconnect the speaker cable from the system board.

## Step 46 — Remove the Screws



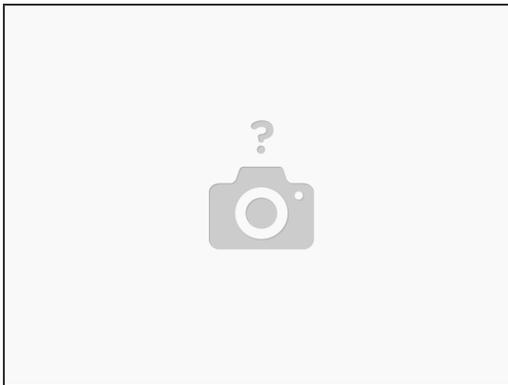
- Remove the screws that secure the system board to the computer base.

## Step 47 — Slide and Lift the System-Board Assembly



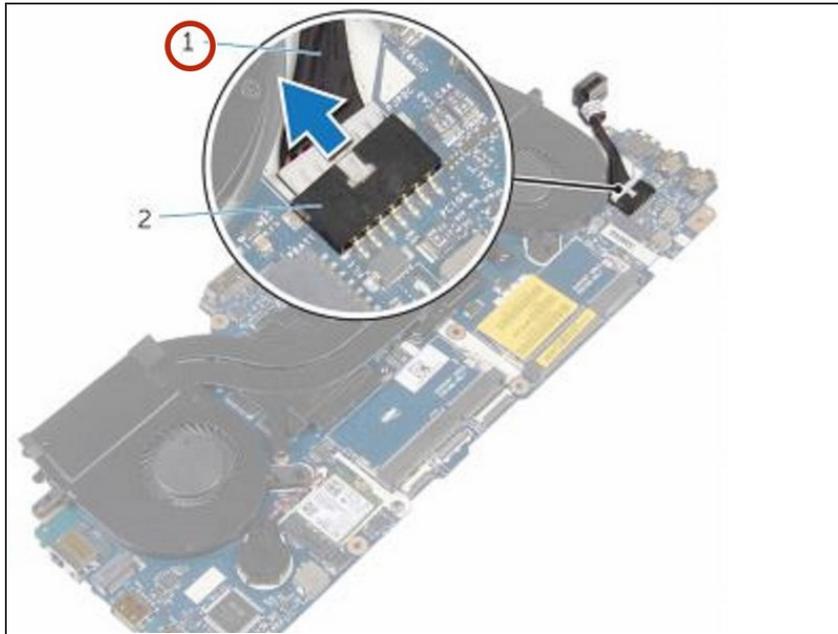
- Slide and lift the system-board assembly.

## Step 48 — Turn the System-Board Assembly Over



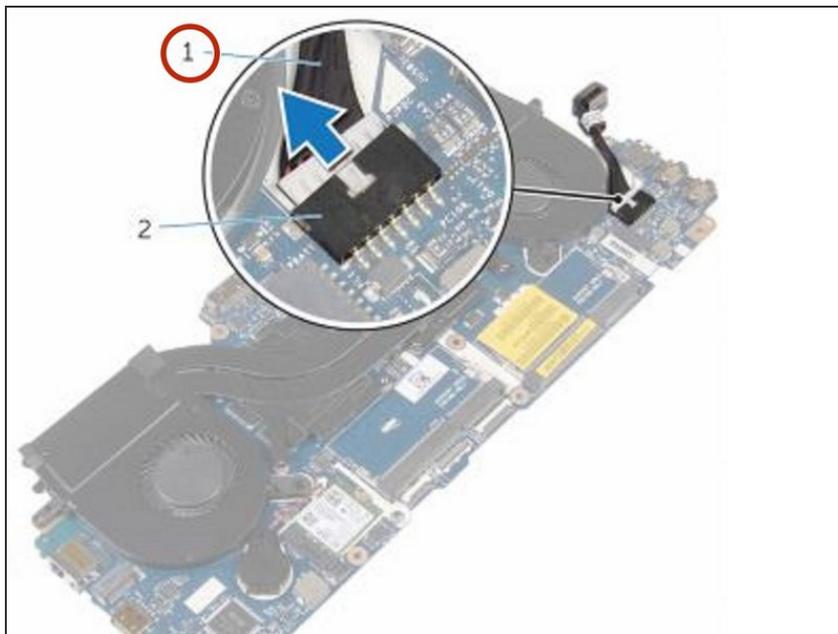
- Turn the system-board assembly over.

## Step 49 — Disconnect the Power-Adapter Port Cable



- Disconnect the power-adapter port cable and remove the power-adapter port from the system board.

## Step 50 — Connect the Power-Adapter Port Cable



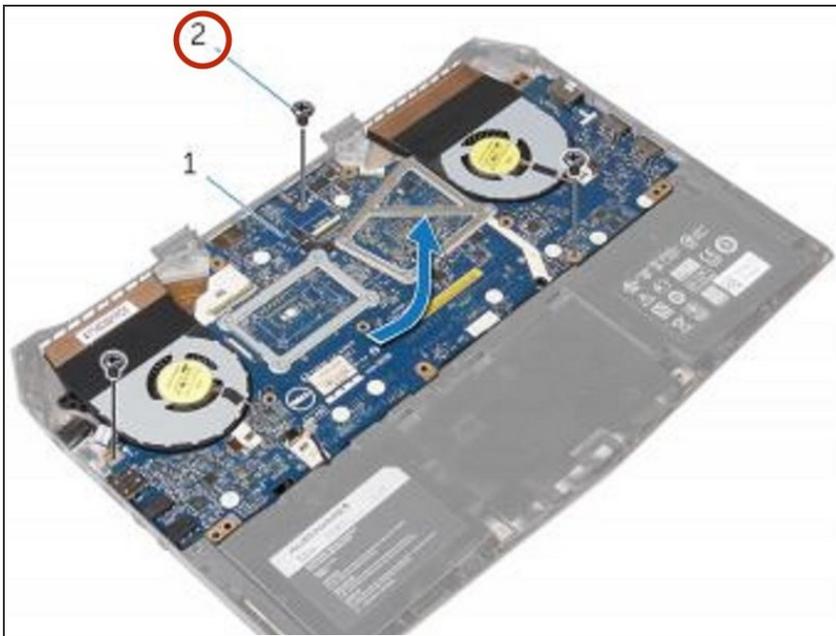
- Connect the power-adapter port cable to the system board.

## Step 51 — Turn over the System Board



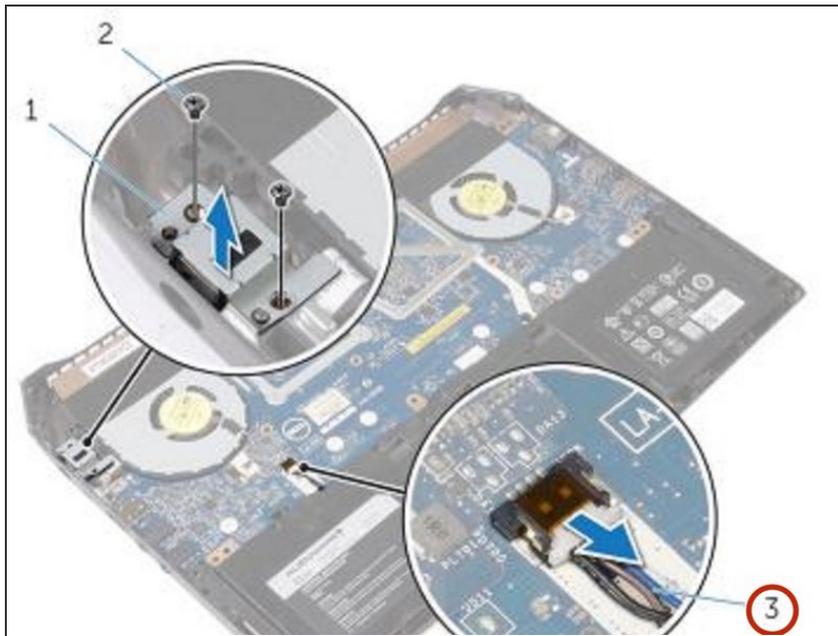
- Turn the system board over.

## Step 52 — Replace the Screws



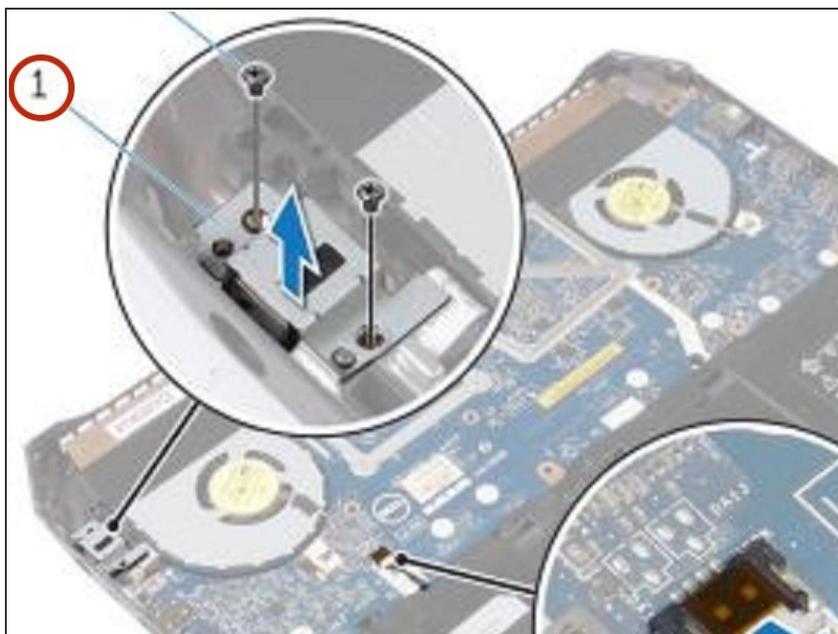
- Replace the screws that secure the system board to the computer base.

## Step 53 — Connect the Speaker Cable



- Connect the speaker cable to the connector on the system board.

## Step 54 — Align the Power-Adapter Port



- Align the power-adapter port to the computer base.

## Step 55 — Align the Screw Hole



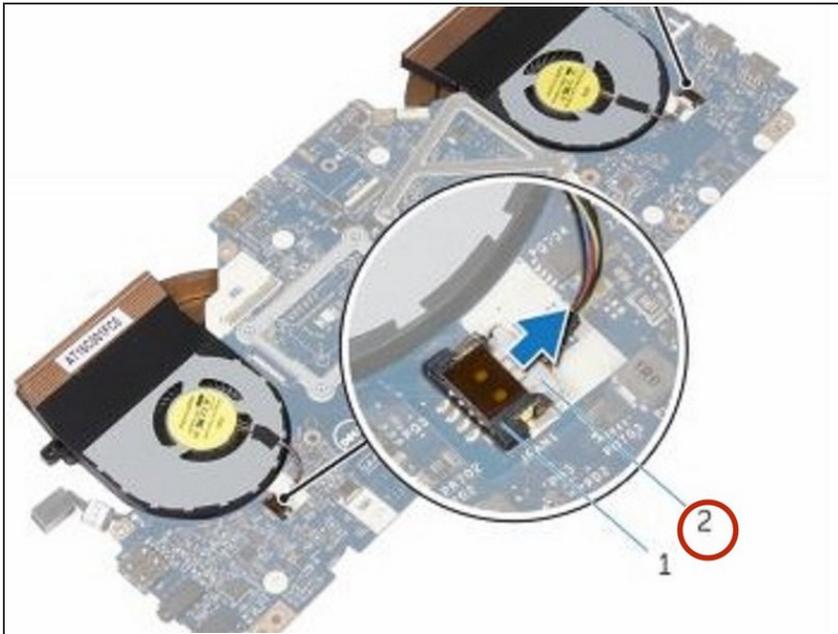
- Align the screw hole on the power-adapter port bracket with the screw hole on the power-adapter port.

## Step 56 — Replace the Screw



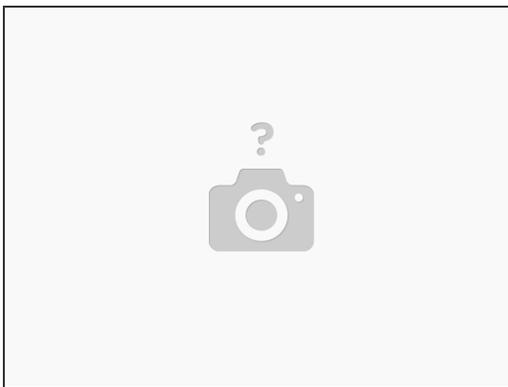
- Replace the screw that secures the power-adapter port bracket to the power-adapter port.

## Step 57 — Disconnect the Fan Cables



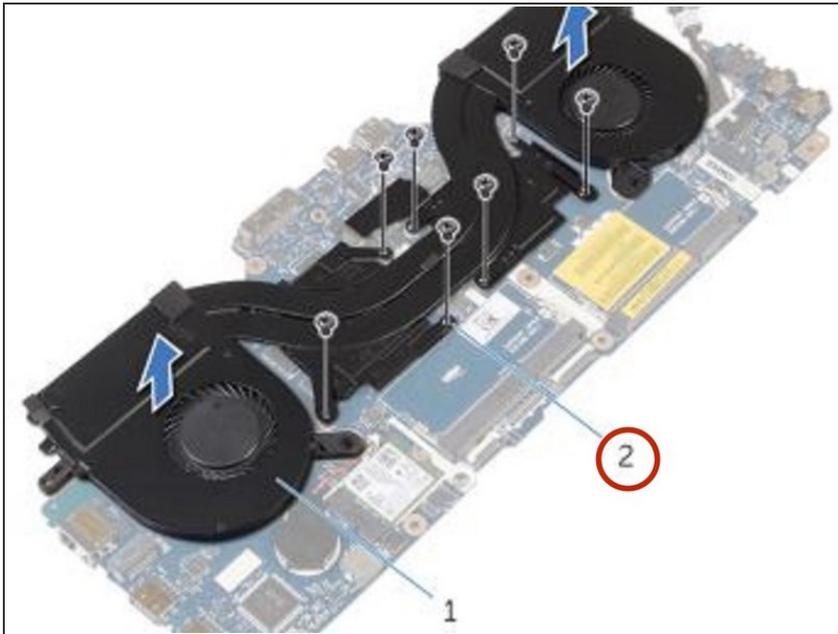
- Disconnect the fan cables from the connectors on the system board.

## Step 58 — Turn the System Board Over



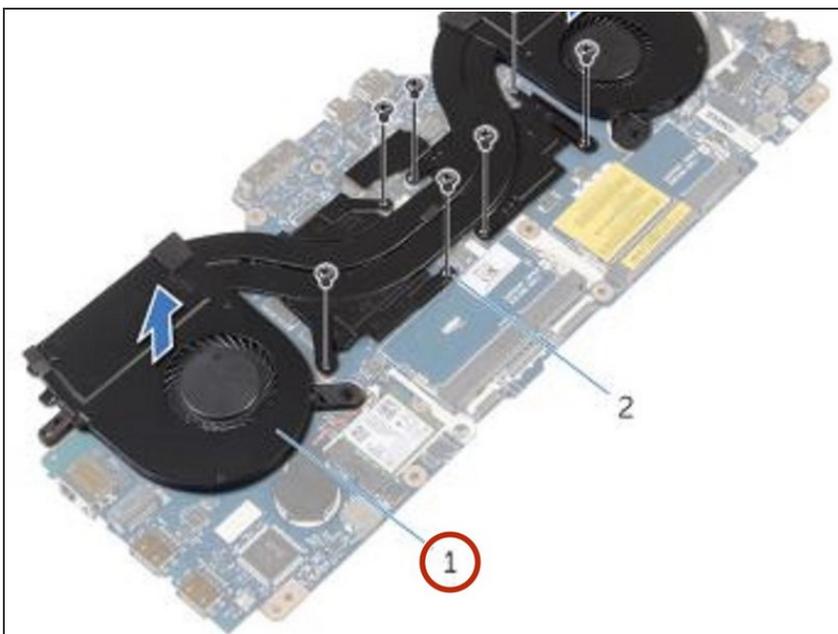
- Turn the system board over.

## Step 59 — Remove the Screws



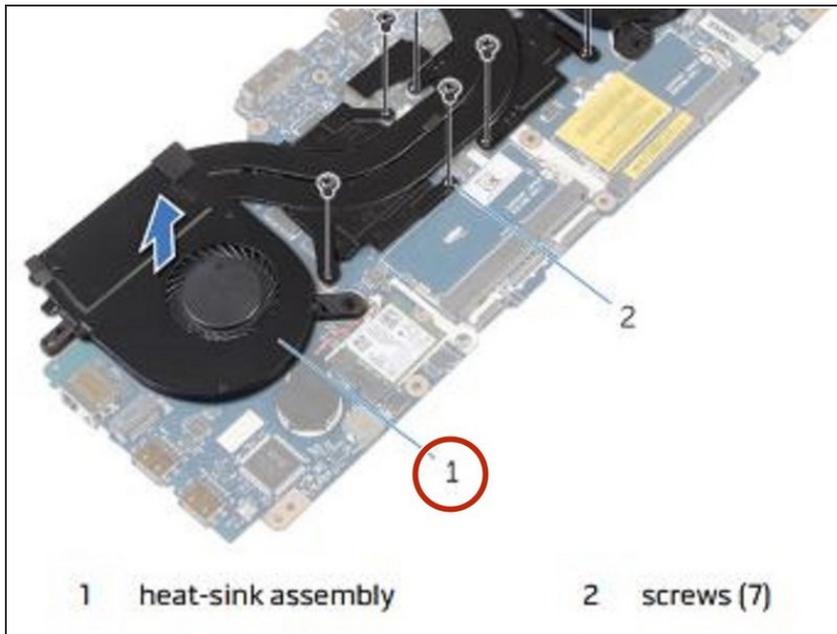
- Remove the screws that secure the heat-sink assembly to the system board.

## Step 60 — Lift the Heat-Sink Assembly



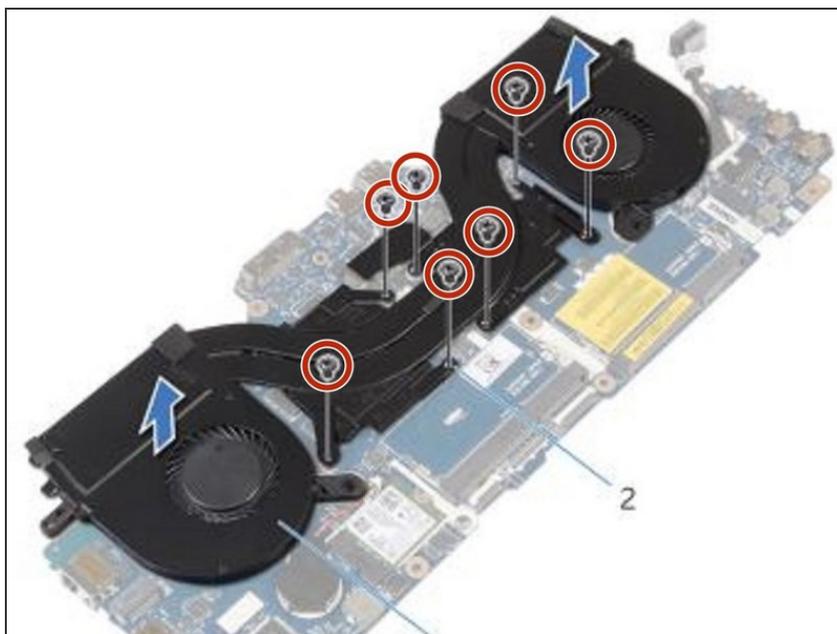
- Lift the heat-sink assembly off the system board.

## Step 61 — Align the Screw Holes



- Align the screw holes on the **NEW** heat-sink assembly with the screw holes on the system board.

## Step 62 — Replace the Screws



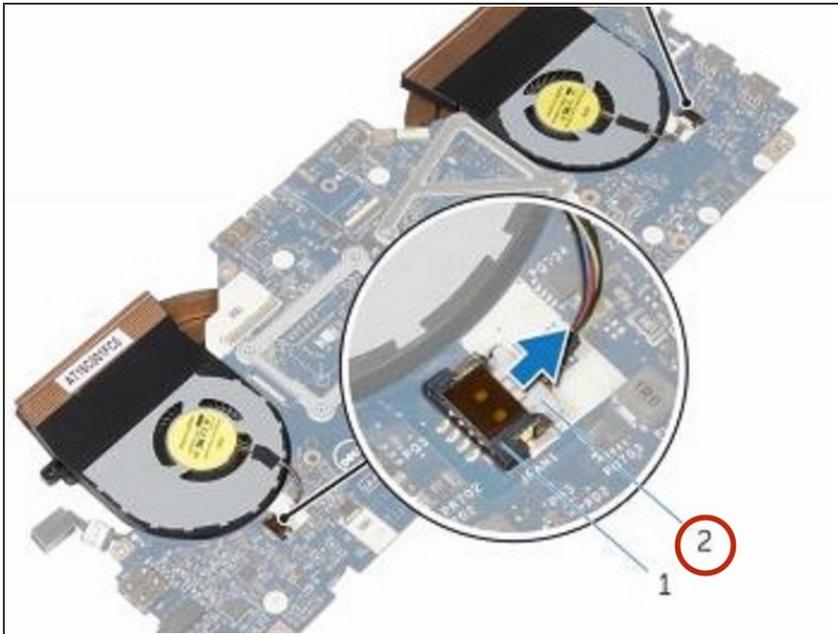
- Replace the screws that secure the heat-sink assembly to the system board.

## Step 63 — Turn the System Board Over



- Turn the system board over.

## Step 64 — Connect the Fan Cables



- Connect the fan cables to the connectors on the system board.

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