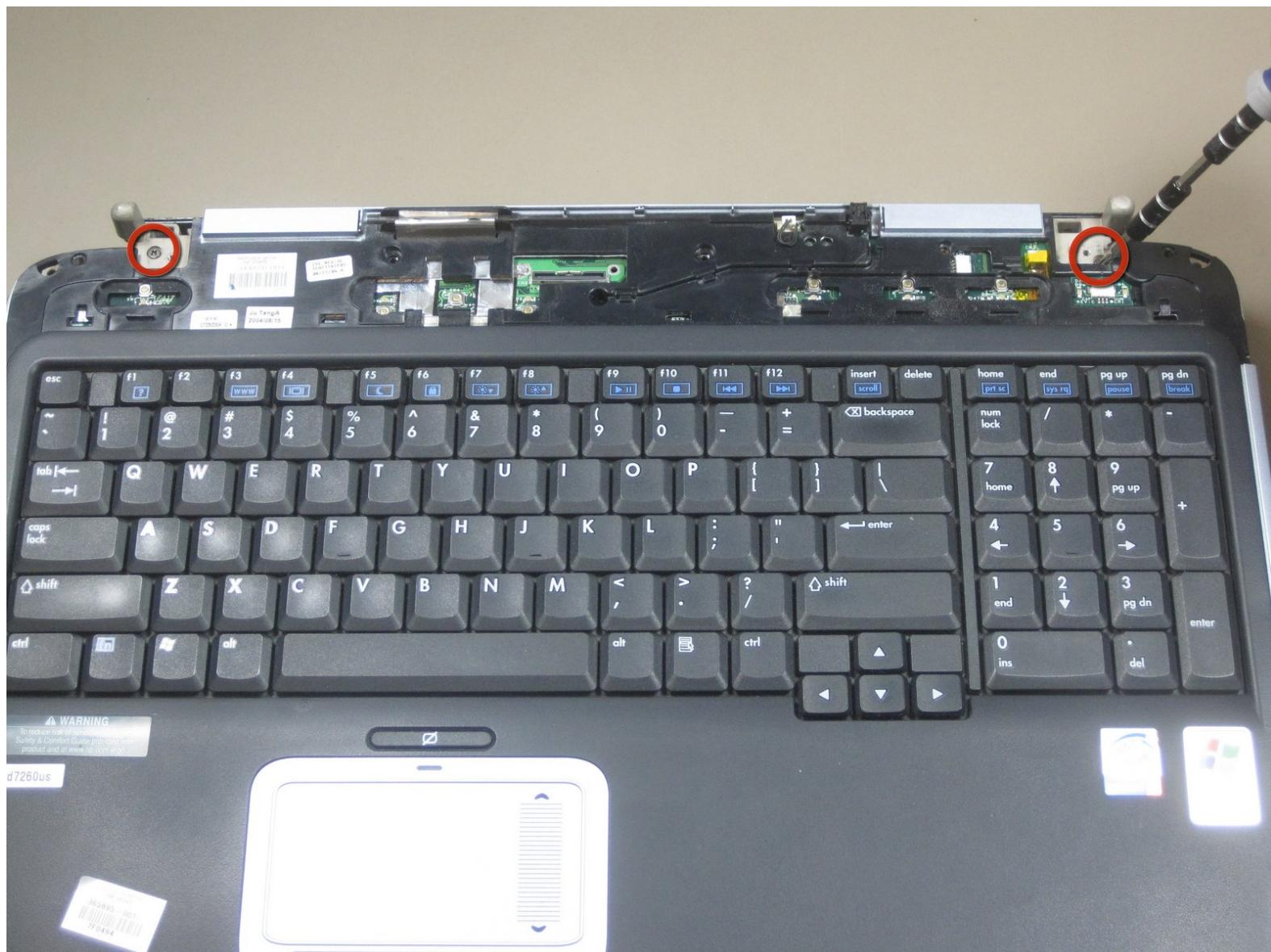




HP Pavilion ZD7000 Motherboard Replacement

Replace the motherboard.

Written By: Shantel



INTRODUCTION

This guide will explain how to reach and remove your laptop's motherboard. The motherboard is hidden beneath several other components that will all need to be removed.

It is very important to keep track of everything you remove from the device, especially the screws, as losing or damaging pieces may cause even greater damage to the device. A recommended strategy is to place each component and its screws in a separate, labeled container.

TOOLS:

- Phillips #1 Screwdriver (1)

Step 1 — Battery



- Begin by turning the laptop over so that you can see the bottom of the computer.

Step 2



- Slide the battery release switch to the right while simultaneously lifting up the battery.

Step 3 — Fans



- Loosen the eight Phillips screws around the plate to remove it.

Step 4



- Remove the nine Phillips screws from the plate covering the fans.

(i) The three screws around the lower fan also hold the fan onto the metal plate.

Step 5



⚠ Lift the plate and lower fan off the heat sink being careful not to damage the lower fan cable, which is attached to the motherboard.

- Disconnect the lower fan connector from the motherboard.
- Remove the metal plate and lower fan.
- **i** The lower fan will easily separate from the metal plate.

Step 6



- Disconnect the upper fan connector from the motherboard.
- Remove the four spring loaded screws holding the heat sink assembly to the motherboard.
- **i** When reassembling, ensure that all the screws are equally tightened: thread all screws one turn, then add one turn to each screw in the following order: top left, bottom right, bottom left, top right. Repeat this order until the assembly is firmly seated.

Step 7



- Slide the heat sink assembly including the upper fan out by pulling it down and left simultaneously.

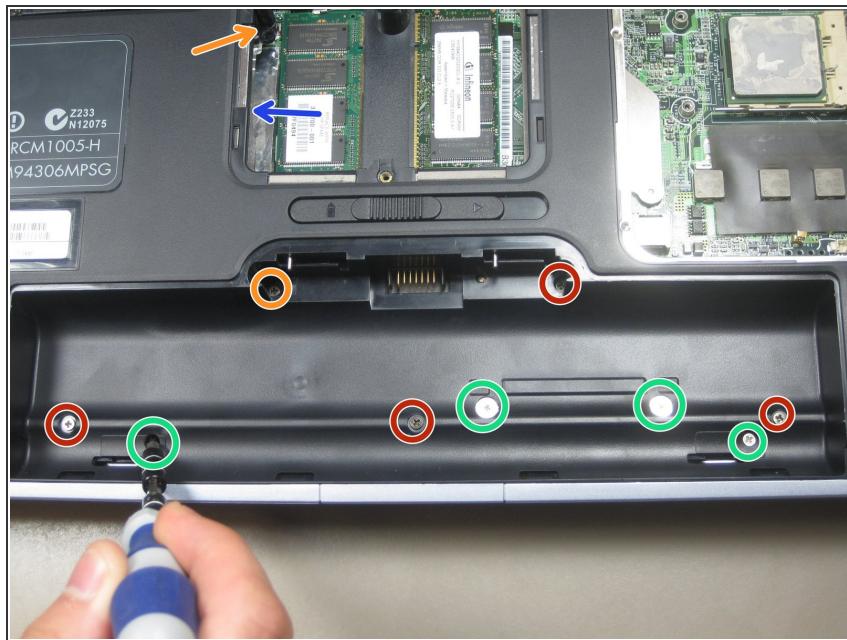
 When reinstalling the heat sink, ensure it is thoroughly cleaned and the thermal paste (or pads) are replaced to ensure proper thermal contact with the devices on the logic board.

Step 8 — Screen



- Begin after removing the battery and fans.
- Remove the screws from the outer frame of the laptop.

Step 9



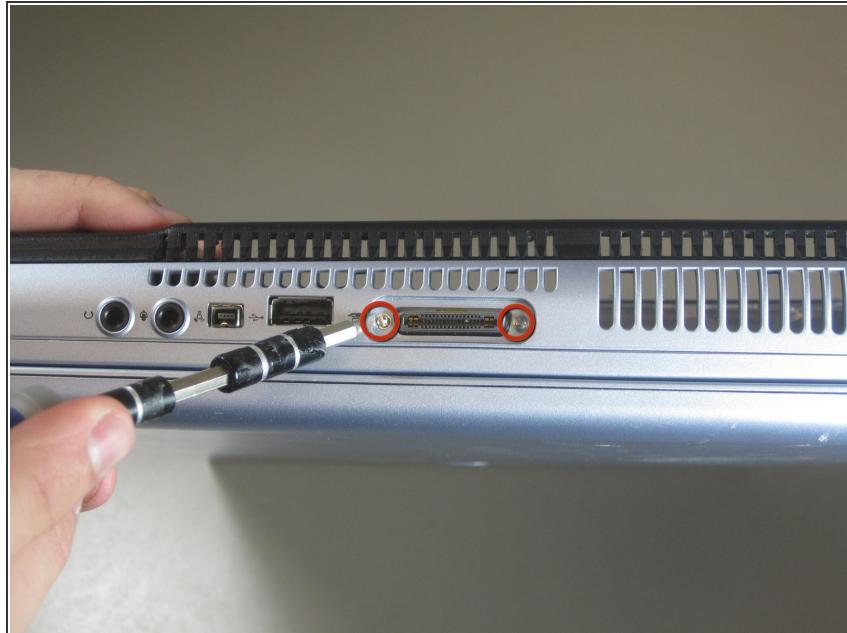
- Remove screws from the battery area, noting the following:
 - These screws are on oversize clearing holes, but hold other components on the keyboard. It is not recommended to remove them yet.
- Two screws secure the optical drive: one in the battery compartment and one in the RAM compartment.
- With the screws removed, PUSH the optical drive out through the opening at the BLUE arrow. You will need to remove the drive to access two more screws at the edge of the frame in the opening of the optical drive.

Step 10



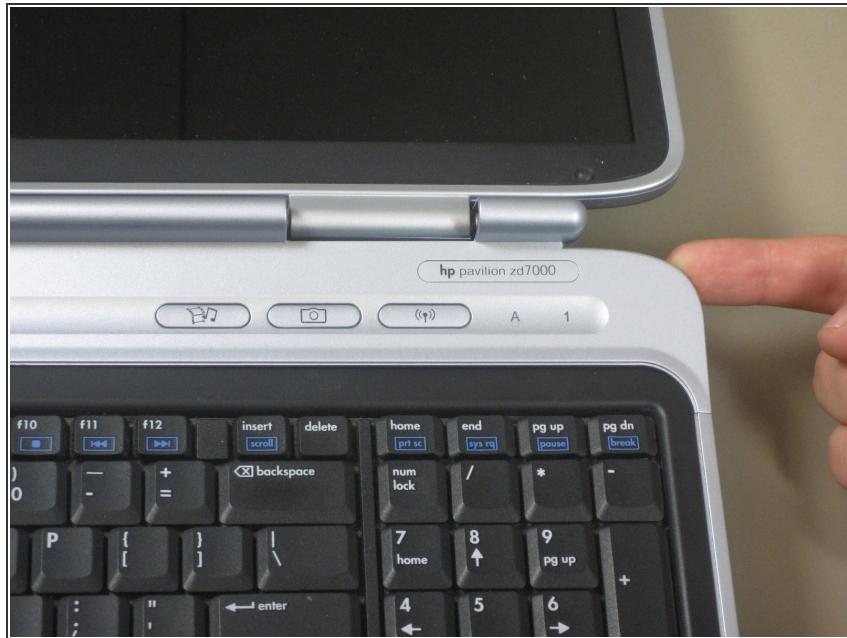
- Remove eight screws from the back panel of the laptop.

Step 11



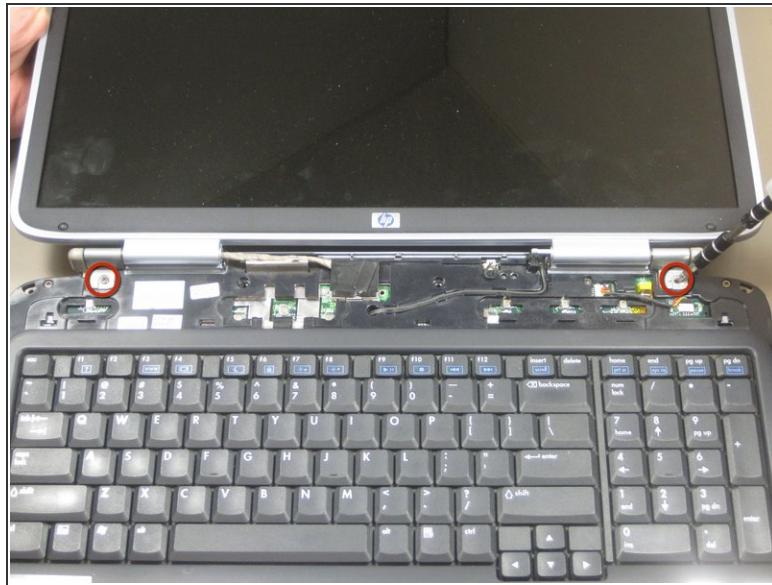
- Using a flathead screwdriver, remove two screws on the left-side panel of the laptop.

Step 12



- Open the laptop so that both the screen and keyboard are in view.
- Carefully pry off the frame above the keyboard.

Step 13

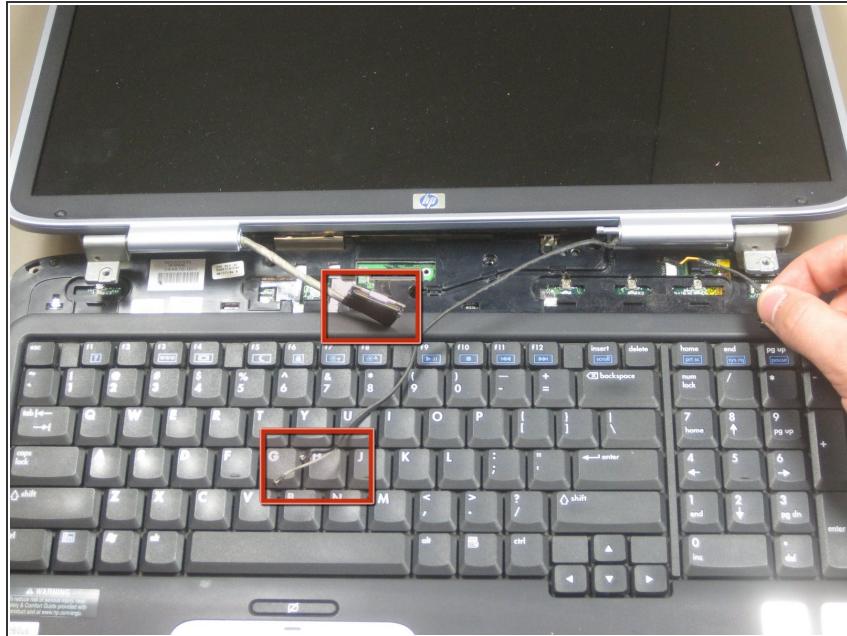


- To begin disconnecting the monitor, remove two screws.

⚠ Do not pull the monitor off yet.

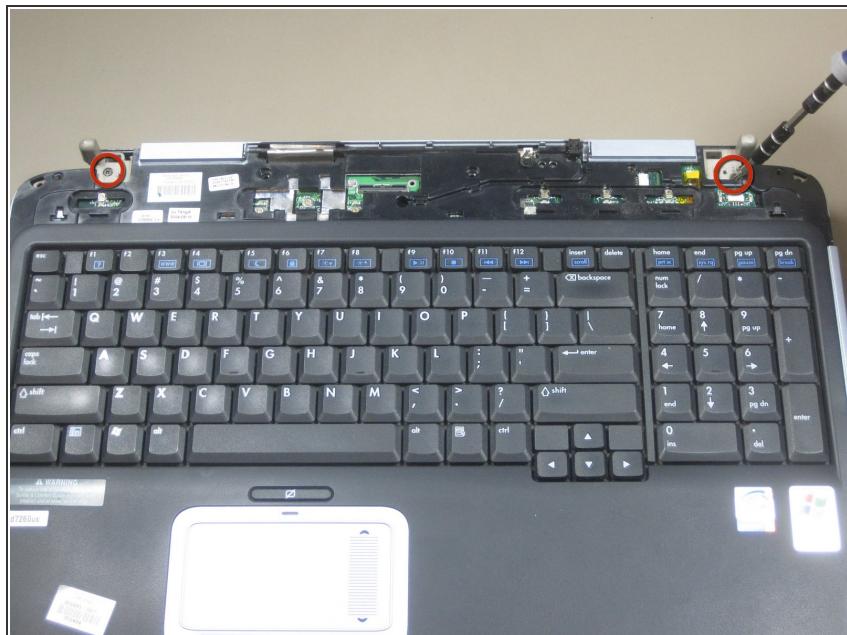
- Make sure to keep the screen propped up to reduce the amount of strain on the screws as you take them out.

Step 14



- Disconnect the two wires connecting the monitor to the rest of the laptop.
- Do not tug on the wires. Just like wall plugs, you need to disconnect them from the actual point of connection.

Step 15 — Keyboard removal



- Remove the screws holding the keyboard to the chassis.
- Unplug the wire just below the right screw shown and the small white connector to the left of that screw.

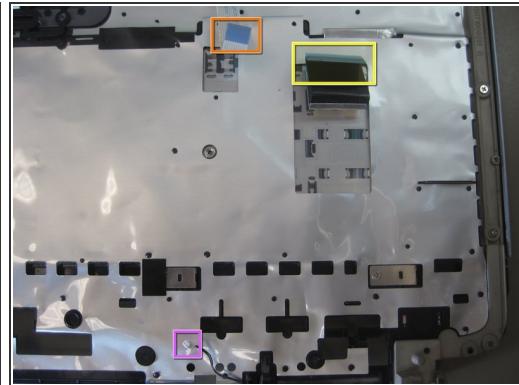
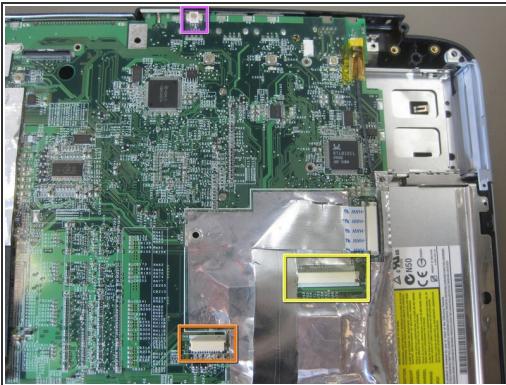
Step 16



⚠ Do not remove the keyboard yet! There are still wires connecting the two components.

- The far end of the keyboard bezel may still be held by two screws that can only be accessed by removing the optical drive (as mentioned in Step 9).

Step 17



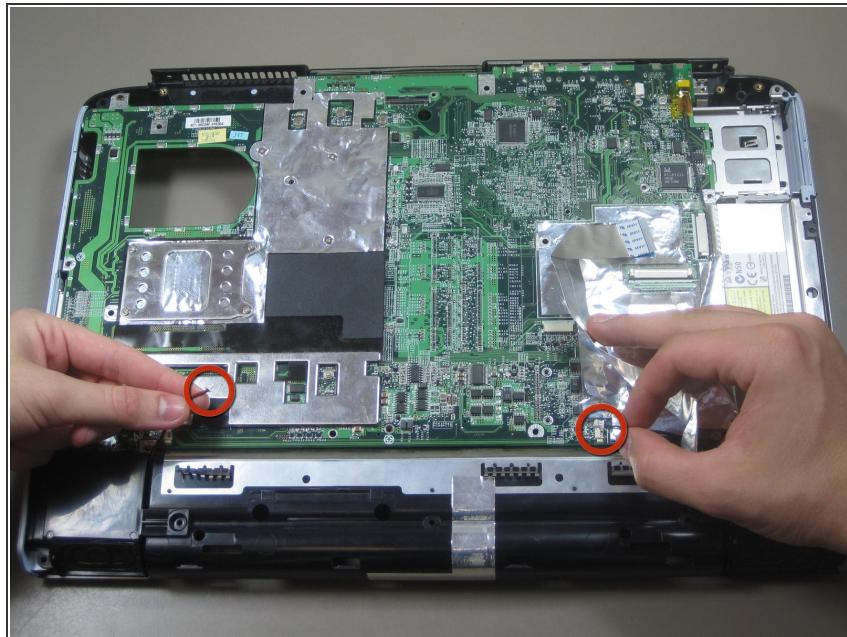
- Disconnect the three ribbon cables attached to the motherboard.
- *(i)* The wire ribbons are removed by snapping out the small latches on the sides of the connection components. The ribbons should slide out with ease.
- See images 2 and 3 for a closer look.

Step 18



- Remove the screws from the motherboard.
- There are many different sizes and types of screws here. Make sure you are keeping track of where they all belong.

Step 19



- Disconnect the speaker cables from the motherboard.

Step 20



- Slide out the optical drive if it wasn't removed in Step 9.

Step 21



- Pry the frame off the laptop outwards while simultaneously lifting the motherboard out of it.
- Go slowly on every side instead of focusing on only one corner.

Step 22



- You can now carefully remove the entire motherboard.
- *(i)* Unless you plan on replacing it, handle the motherboard with care; this is the heart of your computer and any damage will cause a system failure.

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