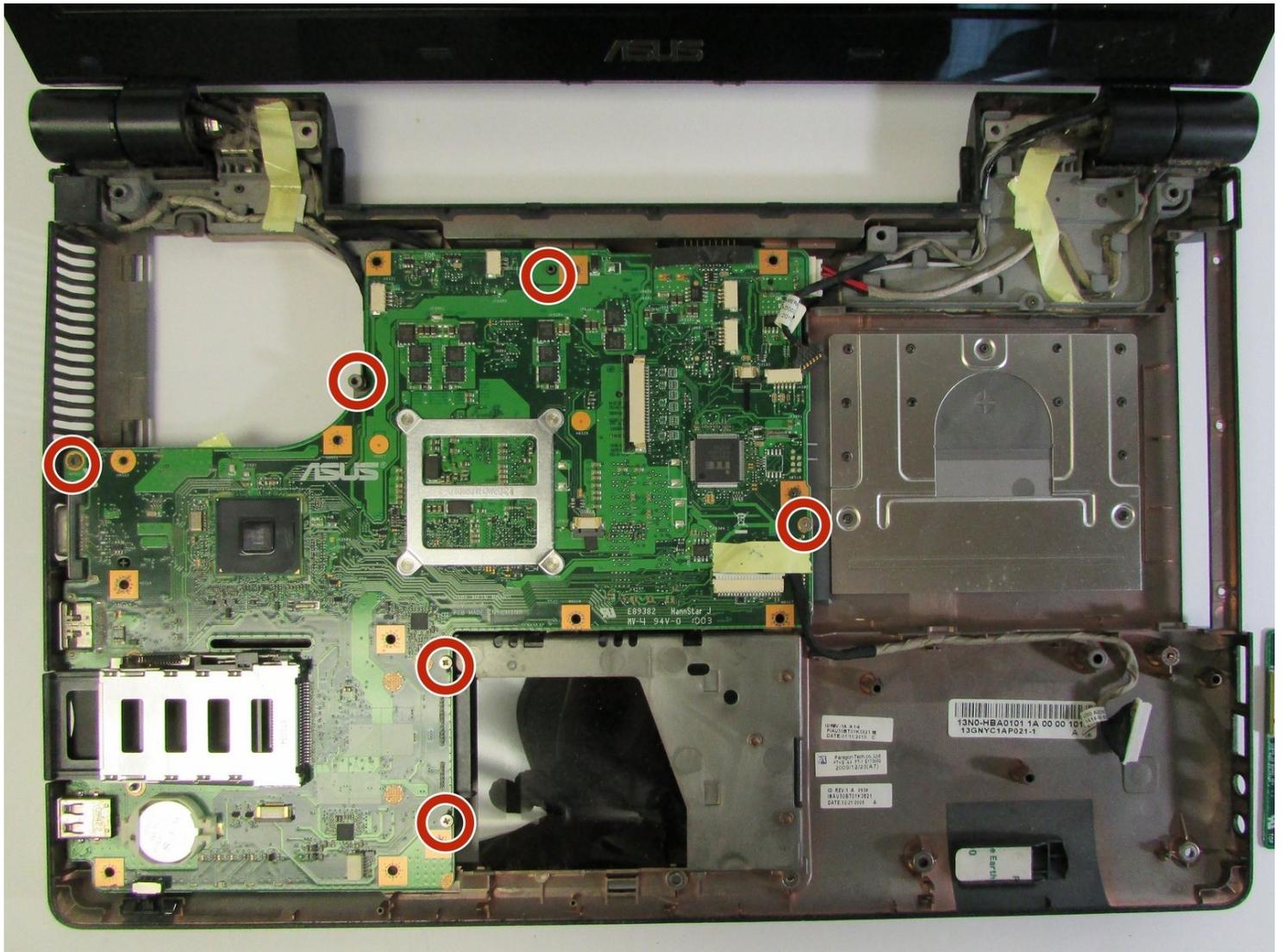




Asus U50F-RBBAG05 Motherboard Replacement

This guide teaches how to replace the...

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INTRODUCTION

This guide teaches how to replace the motherboard from an Asus ASUS U50F-RBBAG05 Series laptop, but before replacing the motherboard, check out this troubleshooting page: [Computer Motherboard Troubleshooting](#)

If you still feel you need to replace it, understand this is a very difficult and meticulous 27-step job, requiring discipline, fine motor skill, and mechanical instinct. Much of the computer must be disassembled, and some of the exact motions are not easily shown through photos, reasons why this is classified as a high risk replacement. Reassembling the computer after replacement is yet another nightmare, fraught with considerable danger to the computer, especially with the wiring.

WARNINGS:

NEVER tug on any wires. Very gently remove any wires as instructed. Wires can be brittle or fragile.

Avoid collateral damage. Make absolute certain before applying force to pry components off, and use as little force as possible.

Take careful notes and records during the disassembly process. Every step will be done in reverse for reassembly after replacement of the motherboard occurs.

NOTE: This guide stops at the removal of the motherboard. It does not explicitly describe how to replace the motherboard but rather implies the new one should be placed as the old one was placed. Steps must be carefully reversed, but reassembly often proves far more difficult than disassembly. Take careful notes during disassembly.

Good luck.

TOOLS:

[Phillips #1 Screwdriver](#) (1)

[iFixit Opening Tool](#) (1)

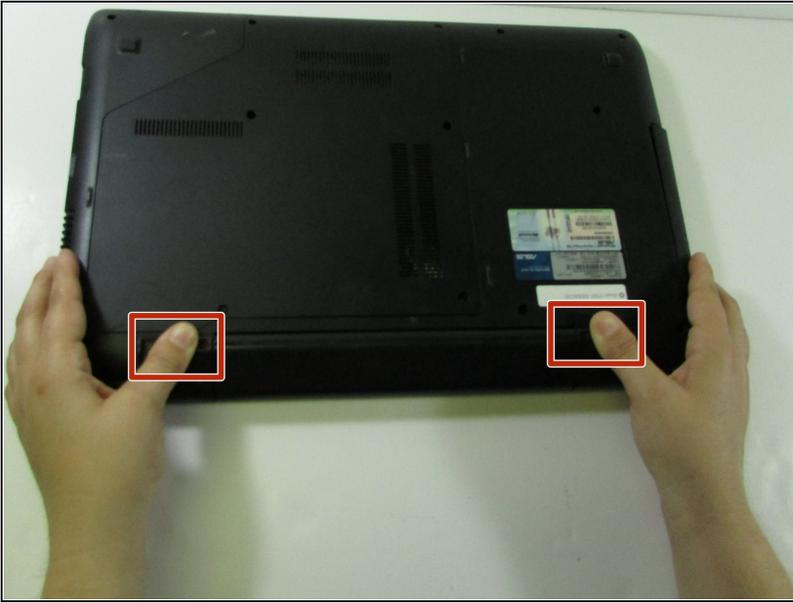
[Spudger](#) (1)

[Jimmy](#) (1)

[iSesamo Opening Tool](#) (1)

[Magnetic Project Mat](#) (1)

Step 1 — Battery



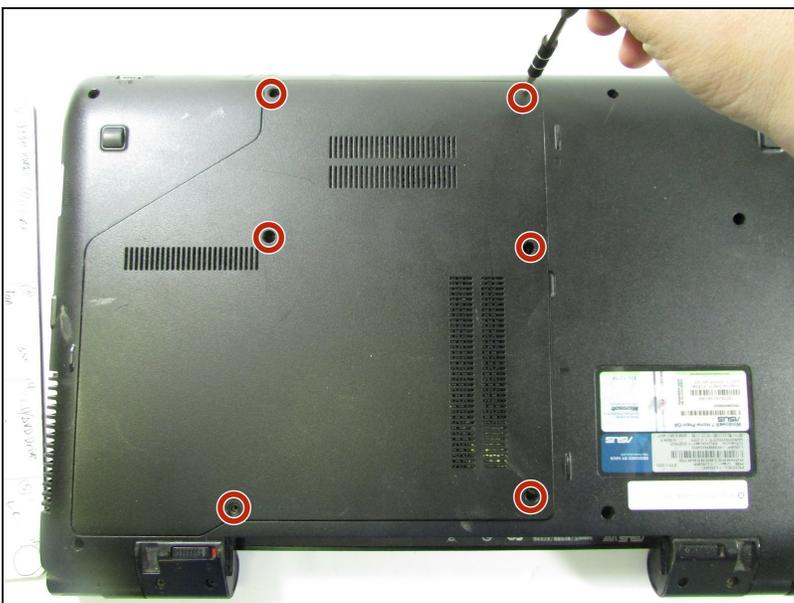
- Turn the laptop over so the bottom is facing up.
 - Slide the two tabs on the bottom of the laptop toward the edges of laptop.
 - Slide the left tab to the left to lock it into the unlocked position. The red showing next to the tab signifies that it's unlocked.
- ⓘ You will have to hold the right tab to the right to keep the slot unlocked while removing the battery.

Step 2



- Hold down the tab on the right side, then begin sliding the battery out.
- Remove the old battery.
- ☑ Next, insert the new battery into the empty slot. Release the right tab to begin locking the new battery into place. Slide the left tab to the right to completely lock the battery into the slot. The red that was showing near the left tab should be gone. This signifies that the battery is locked into place.

Step 3 — Underpanel



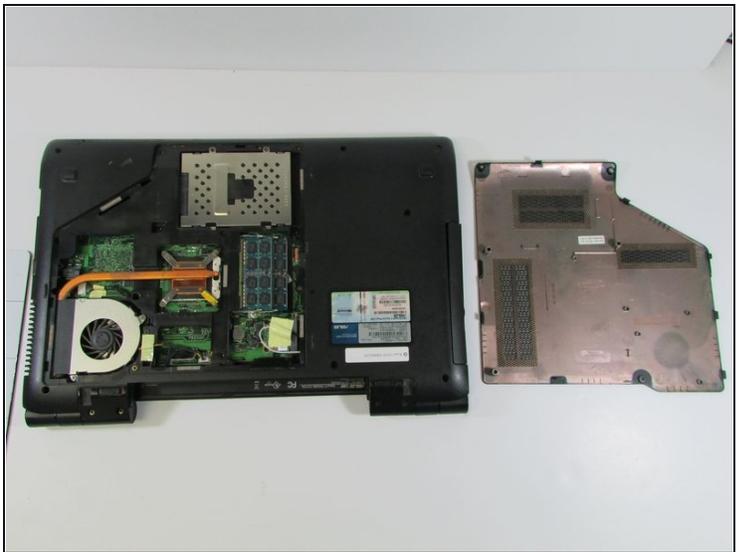
- Remove the six screws using a Phillips #1 screwdriver.

Step 4



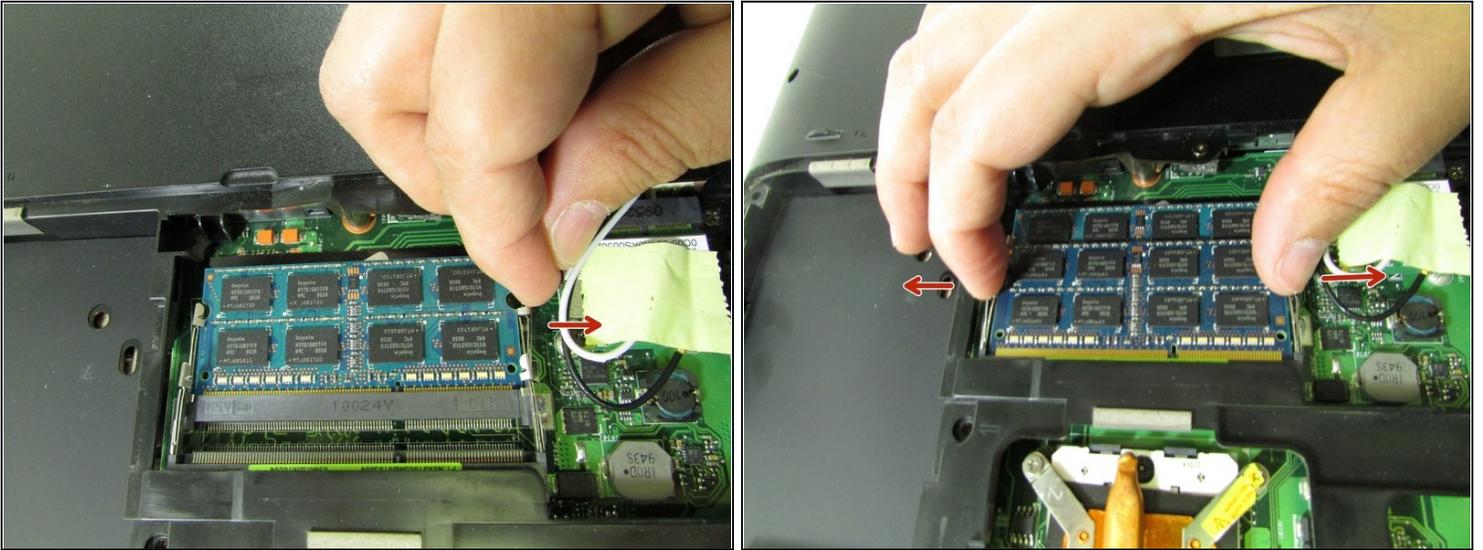
- Pry the lower panel up with your fingernail or a spudger.

Step 5



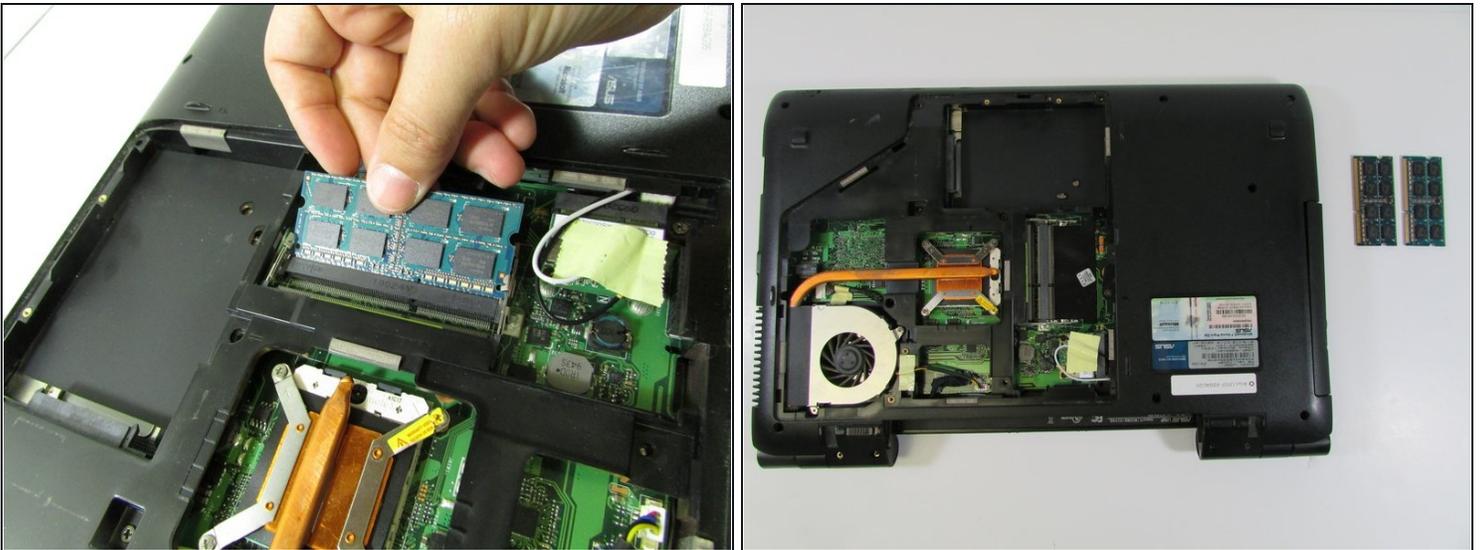
- Lift up on the panel and remove it.

Step 6 — Random Access Memory (RAM)



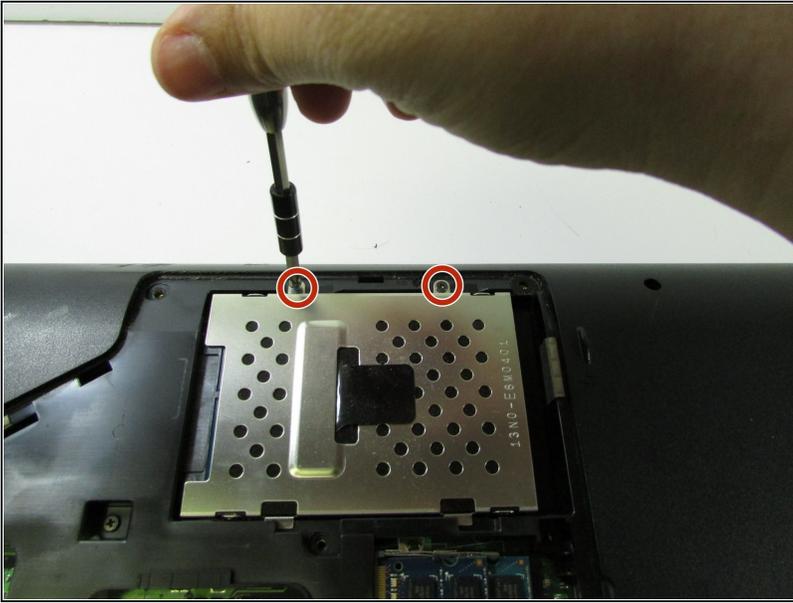
- Push back on the silver clips shown in the picture until you hear/feel a pop.

Step 7



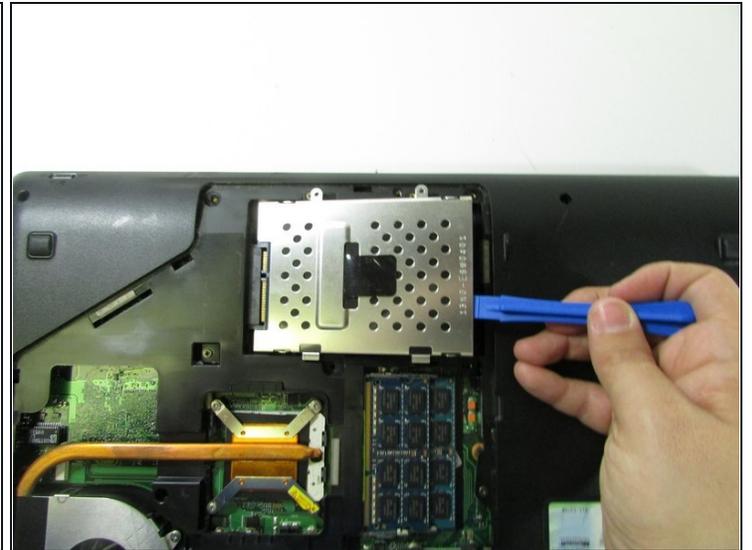
- Pull back on the RAM card and remove it.
- Repeat for the lower RAM card.

Step 8 — Hard Drive



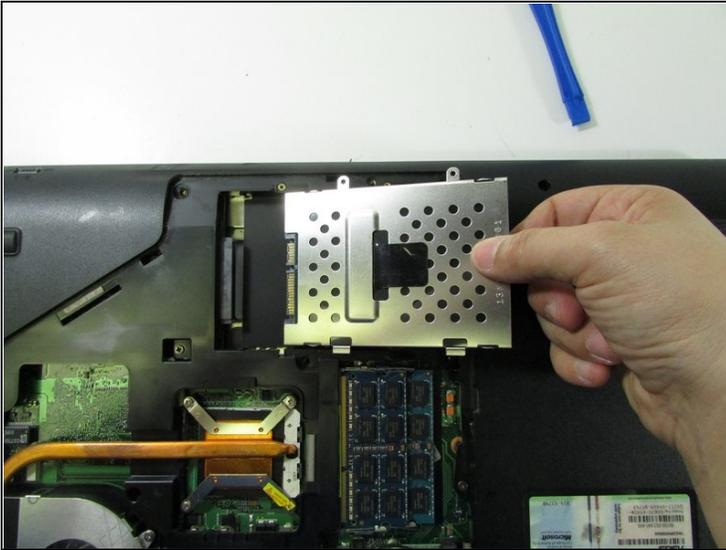
- Remove the two screws using a Phillips #1 screwdriver.

Step 9



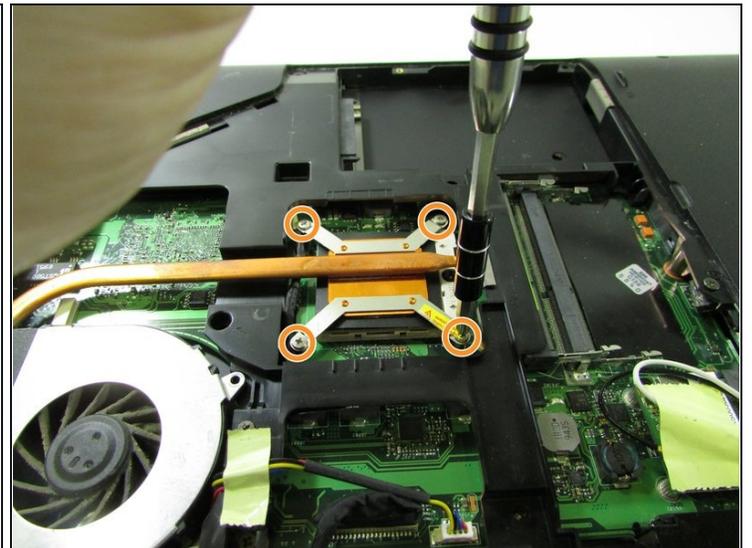
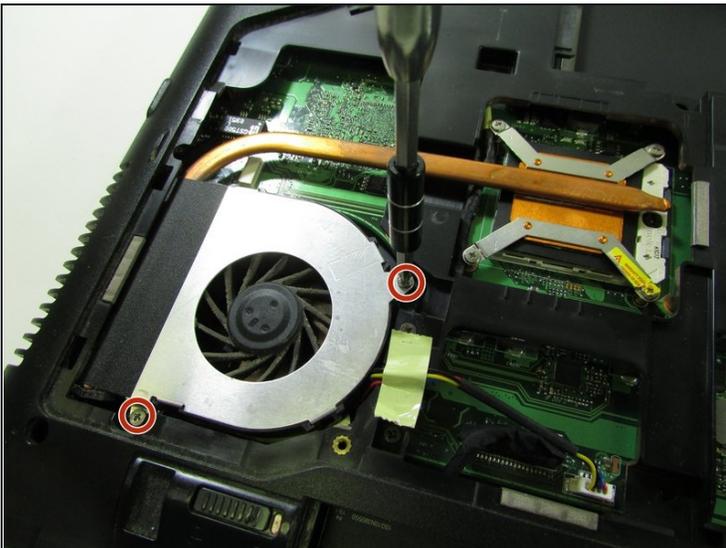
- Using your finger, push the hard drive back.
- Pry up the drive with an opening tool (or your fingernail).

Step 10



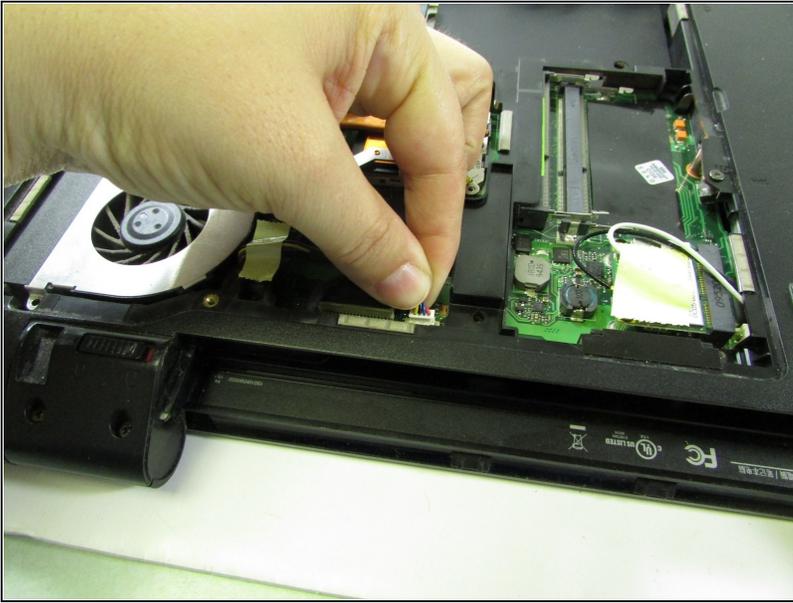
- Pull back on the hard drive and lift upwards.
- Remove the component completely.

Step 11 — Fan and Heat Sink



- Use the Phillips #1 to remove two screws from the fan that attach it to the motherboard.
- Remove the four screws on the heat sink.

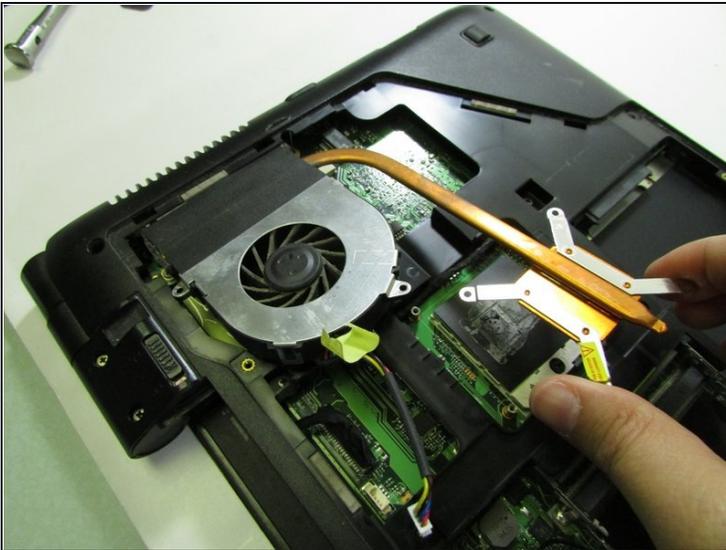
Step 12



- Pull the bundled cable away from the connector in the same direction the individual wires are running.

⚠ Potential for device damage: Pull evenly on the connector so that no individual wires are overly strained.

Step 13



- Pull up the heat sink a bit and then pull back.
- ⓘ There's an overhanging piece of the lower panel near the fan that you have to scoot out of.
- Lift and remove both the fan and heat sink.

Step 14 — Optical Drive



- Remove the single screw.

Step 15



- Use the plastic opening tool to push the drive out from the back.

Step 16



- Pull the drive out and remove completely.
- ☑ When reassembling the drive, lay the laptop with the base towards the floor. Then, push the drive all the way in. Otherwise, the drive will become stuck and be difficult to reassemble.

Step 17 — Keyboard



- Insert one of the pry tools under a top corner and the other tool under the side of the same corner. Make sure to get under the metal of the keyboard, not just the first layer of plastic. Then pry the corner down and out from under the little overhang its sitting under.
- Next, slide the pry tool on the top over to the next overhang and insert the second tool on the other side. Push down and pry out the keyboard.
- Repeat the same process all the way down to the opposite corner.

Step 18



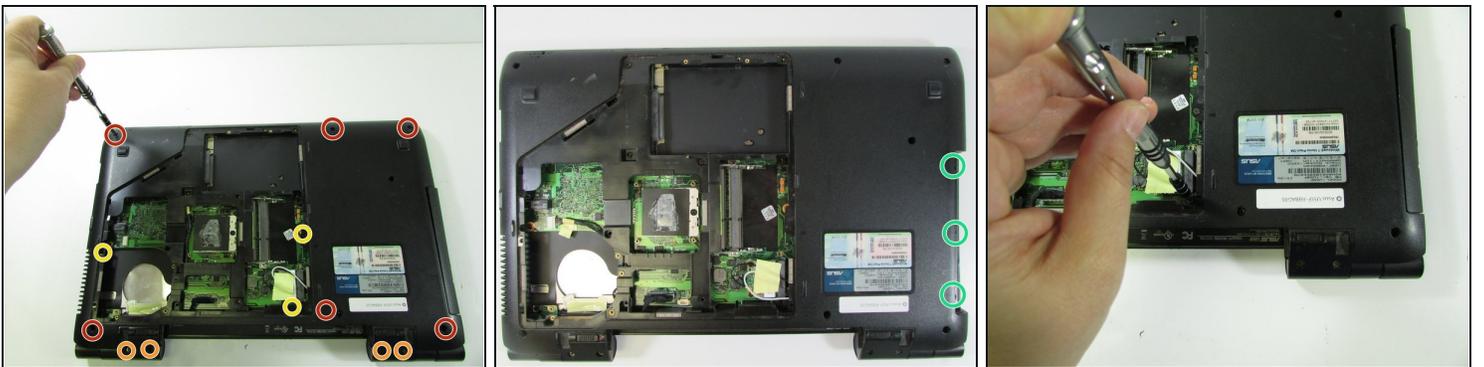
- Once the keyboard is free, lift it up slightly and release the cable connection underneath.

Step 19



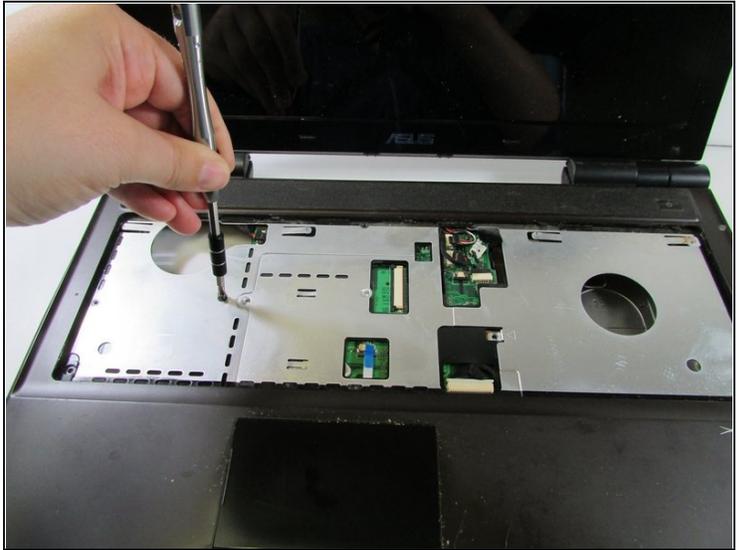
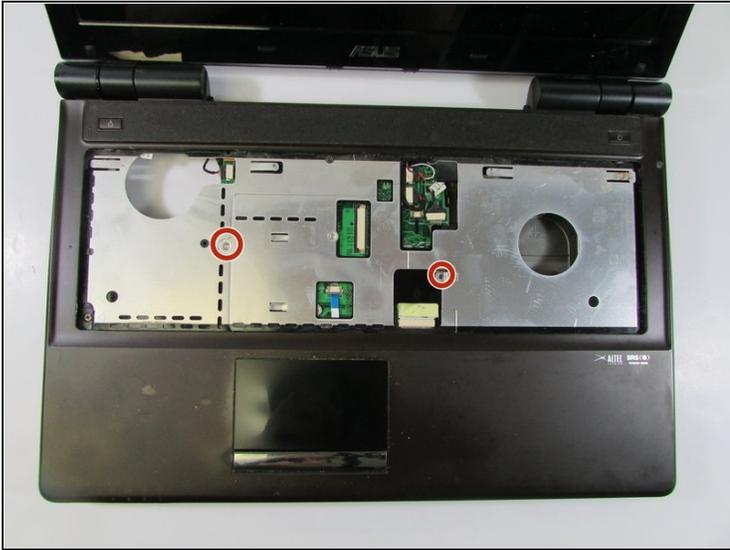
- Last, remove the keyboard completely from the computer.

Step 20 — Upper Case



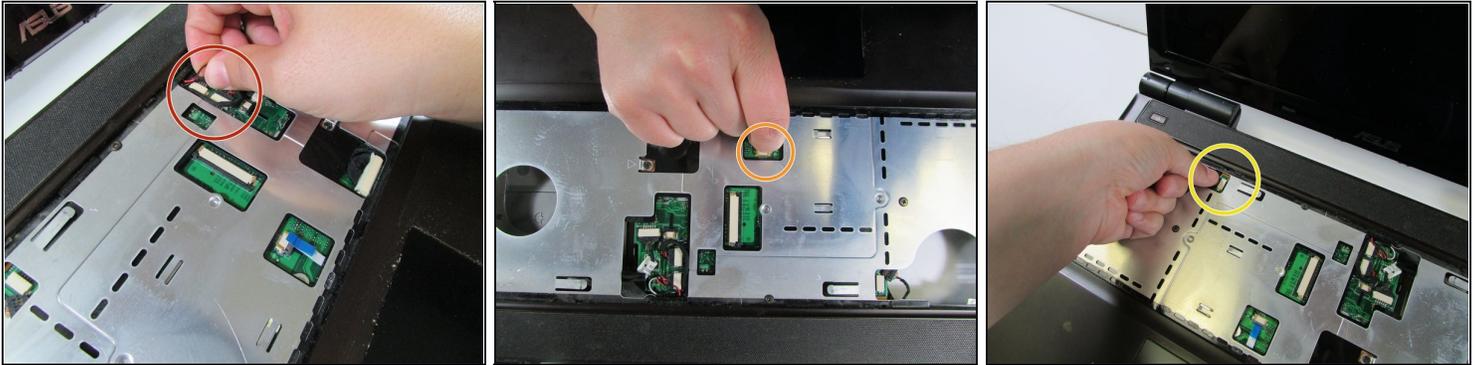
- Remove the six screws from the outer lower case.
- Remove the four screws from the hinges.
- Remove the three screws on the inner lower case.
- Remove the three screws from the optical drive area.

Step 21



- Remove the two screws from the metal frame.

Step 22



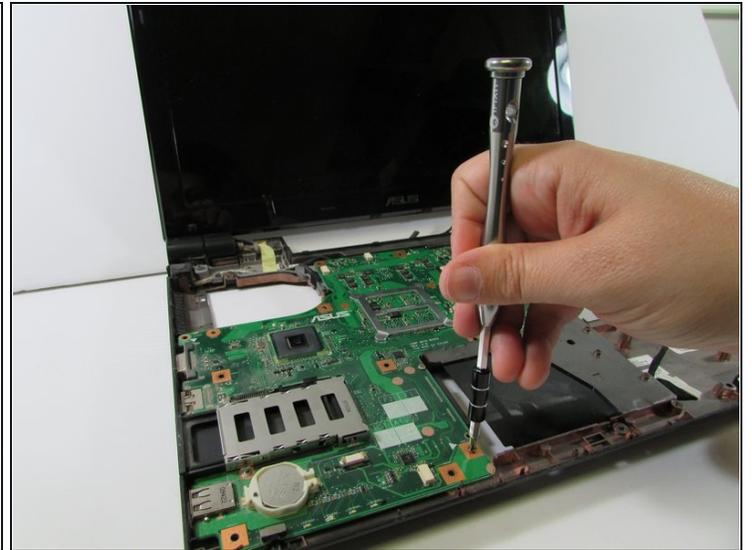
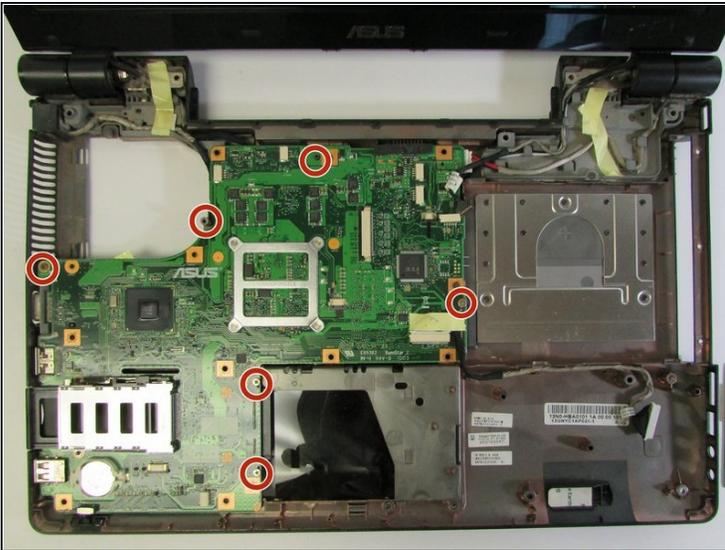
- Pull the two bundled cables away from the connector in the same direction as the individual wires are running.
- ⚠ Potential for device damage: Pull evenly on the full width of the cable so that no individual wires are overly strained.
- Pull the no-fuss ribbon cable straight out of the connector.
- ⚠ Potential for device damage: These kinds of connectors are fairly rare, so check carefully for a way to release the connector before you resort to pulling on the ribbon cable.
- Pull the single bundled cable away from the connector in the same direction as the individual wires are running.
- ⚠ Potential for device damage: Pull evenly on the full width of the cable so that no individual wires are overly strained.

Step 23



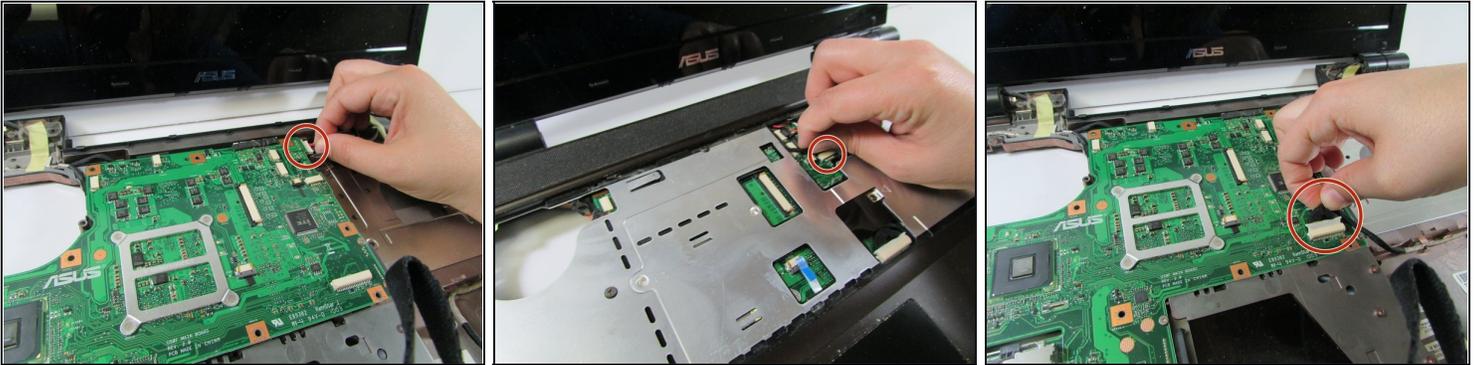
- Lift up and remove the upper case.

Step 24 — Motherboard



- Remove the six screws from the motherboard.

Step 25



- Pull three bundled cables away from their connectors in the same direction as the individual wires are running.

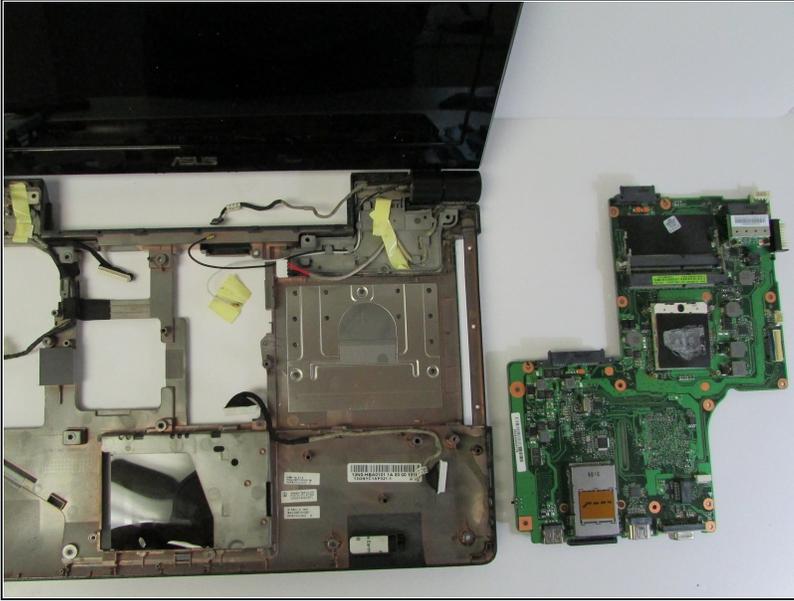
⚠ Potential for device damage: Pull evenly on the full width of each cable so that no individual wires are overly strained.

Step 26



- Flip the laptop over.
- Disconnect one wire.
- Remove the tape connected to the white wire (which should not be connected to anything, but disconnect it if it is) and disconnect the black wire.

Step 27



- Flip laptop back over and remove the motherboard completely.

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