



OLPC XO-1.5 Motherboard Replacement

This guide will teach you how to replace the motherboard.

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INTRODUCTION

This guide will show you how to access the motherboard in your OLPC XO 1.5. The motherboard is like the brain of the computer, and holds the memory, processors, and ports.

TOOLS:

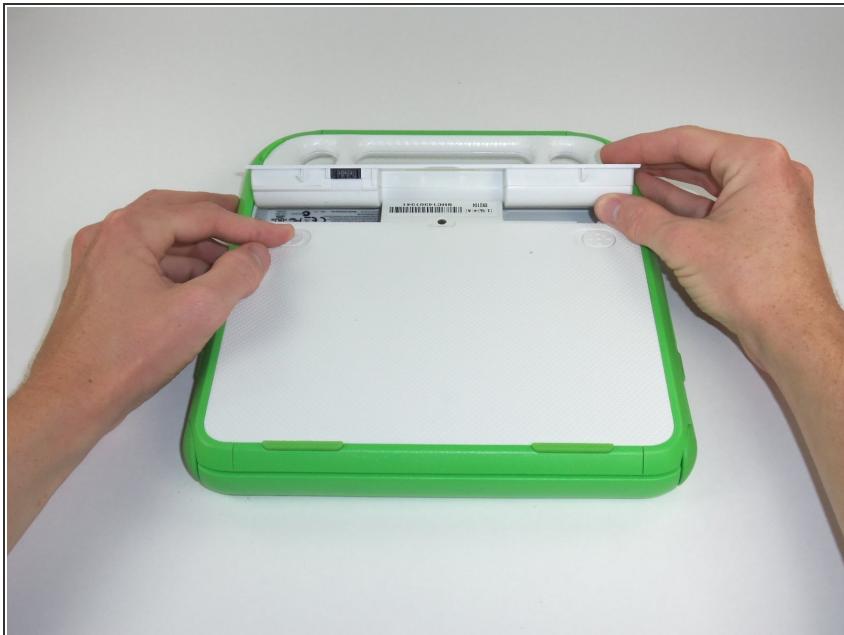
- [Phillips #0 Screwdriver \(1\)](#)

Step 1 — Battery



- Place the laptop upside down with the handle away from you.

Step 2



- Slide the tabs out, towards the green edges, to show the open lock symbol.

i The right tab will stay in place, but the left tab must be held in position while you remove the battery.

Step 3



- Lift the middle of the battery to remove it.

Step 4 — Screen



- Turn the laptop so it is resting on its bottom.
- Open the laptop by rotating the green wings on the side up, then lifting the top half of the laptop.
- Rotate the top half of the laptop about 90 degrees.

Step 5



- Turn the laptop upside down, so you can see the screws on the bottom of the top half.
- Remove the two 4mm screws with a Phillips #1 screwdriver.
- Rotate the top half 180 degrees.
- Remove the two 4mm screws with a Phillips #1 screwdriver.

Step 6



- Rotate the top of the laptop 90 degrees, so that it is facing you again.
- Slide the green pieces off the device. They should come off easily.

Step 7



- Pull down on the white screen cover. It does not require much force.
- Remove the screen cover.

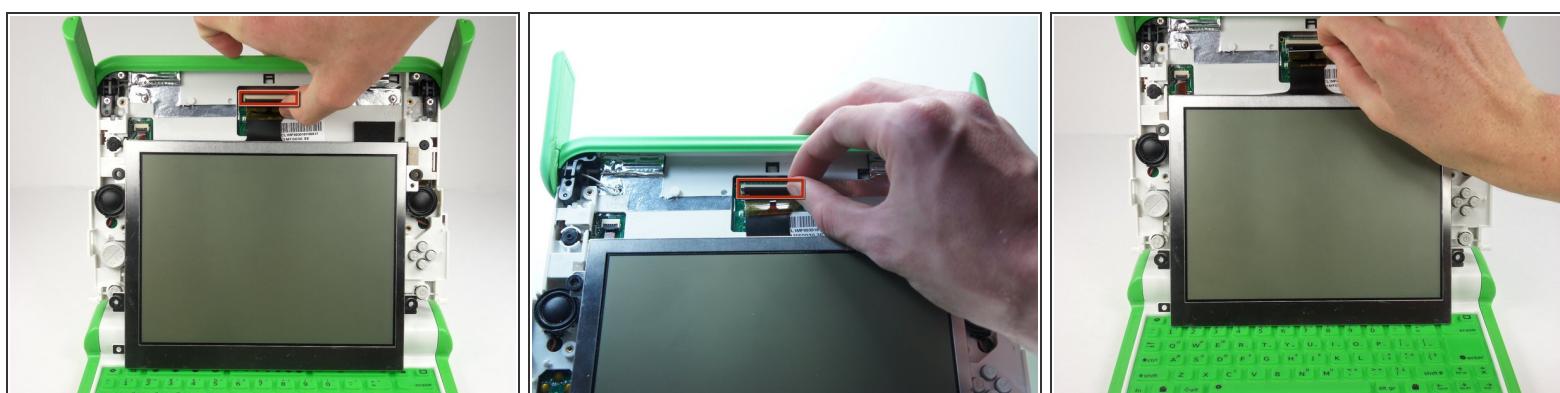
● *(i)* The game pad on the left sometimes falls during this step.

Step 8



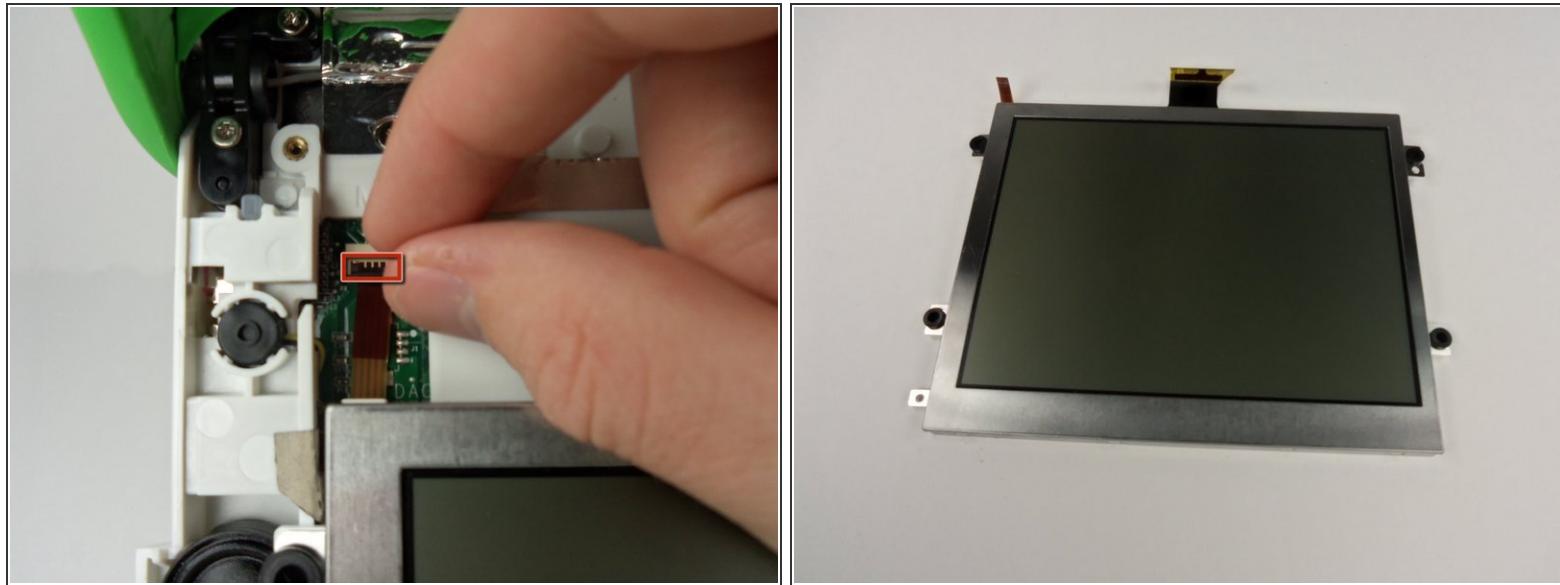
- Unscrew the four 7.62mm Phillips #1 screws on either side of the screen.
- ⚠ The screen is still connected by ribbon cables. You can damage the cables if you remove the screen before disconnecting the cables.
- Move the screen down a little to expose the ribbon cables.

Step 9



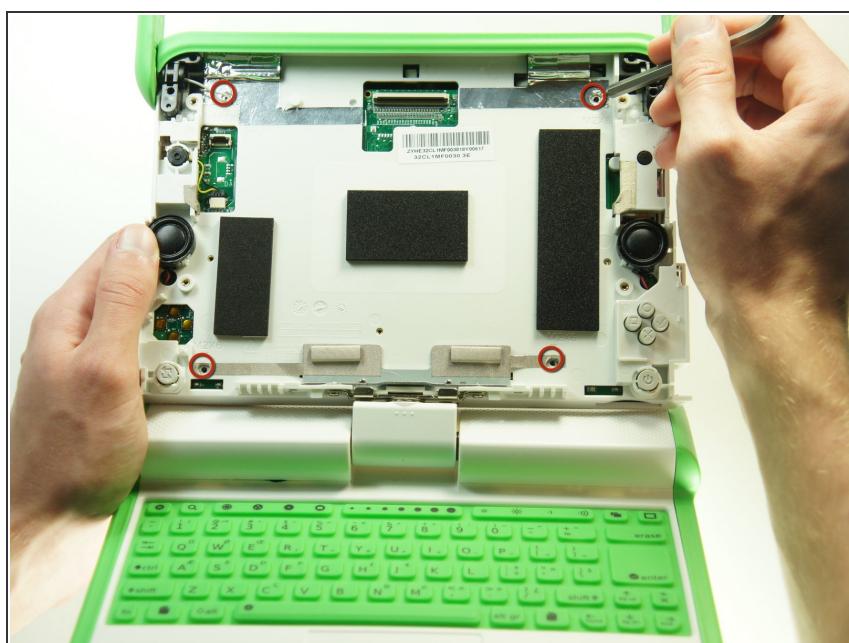
- Flip up the tab right under the middle top of the screen.
- Pull the black ribbon cable out of the socket.

Step 10



- Flip up the smaller tab under the left side of the screen.
- Remove the small cable to separate the screen from the rest of the laptop.
- Gently remove the screen.

Step 11 — Wireless Card



- Remove the four 4mm Phillips #1 screws that hold the top cover to the case.

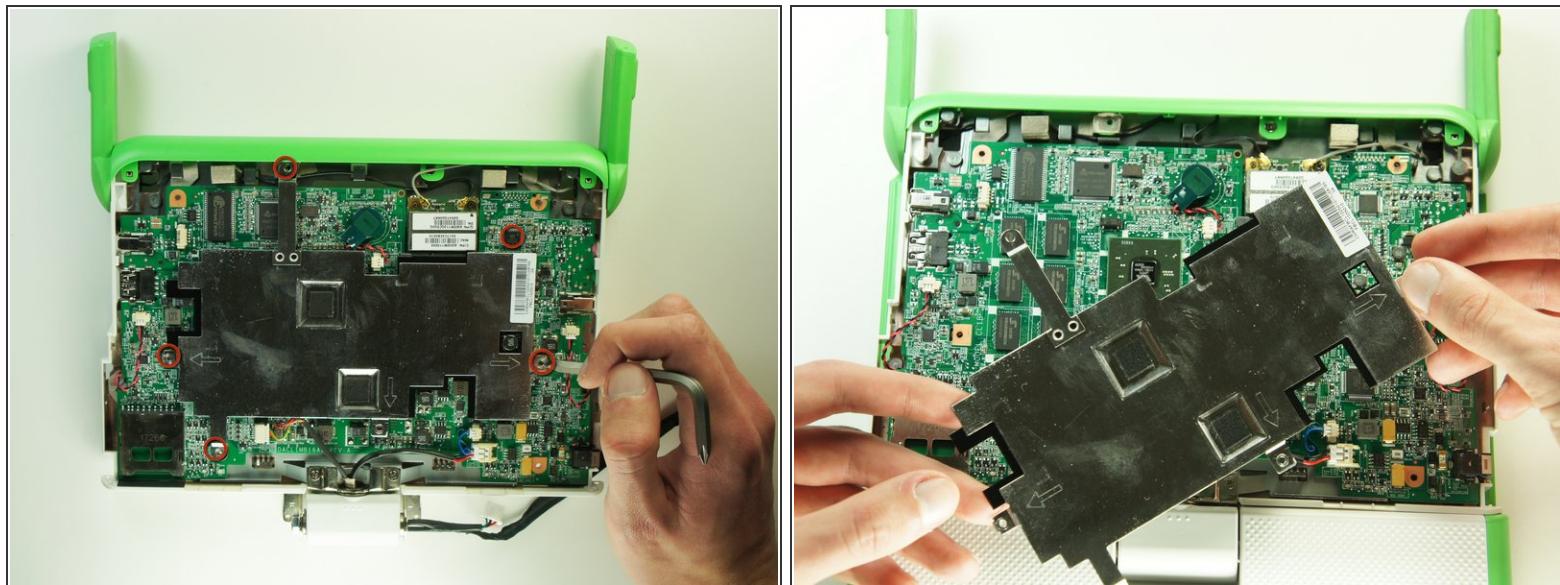
Step 12



(i) Close the lid and rotate the device 180°.

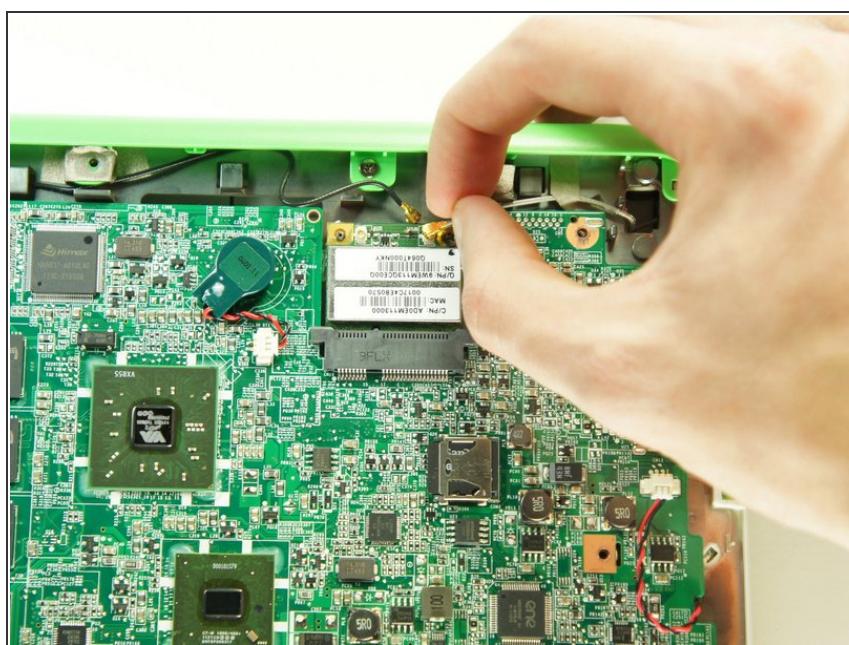
- Press firmly on the top two corners of the outside cover. Then slide it down, away from the antennas.

Step 13



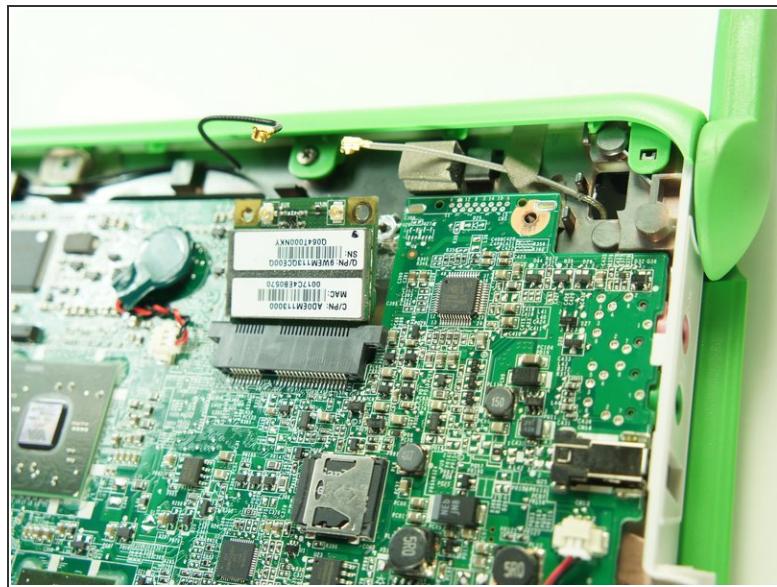
- Remove the five 4mm Phillips #1 screws securing the EMI shield to the motherboard.
- Gently lift up and remove the EMI shield.

Step 14



- Gently remove the two antenna cables by lightly pulling the cable connectors up.

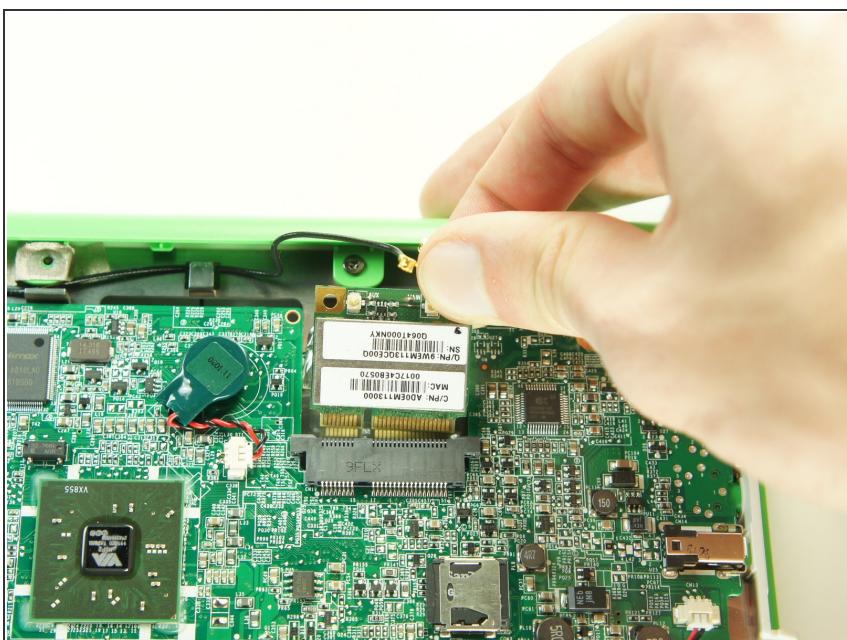
Step 15



- Remove the two 5mm Phillips #1 screws holding the wireless card to the motherboard.

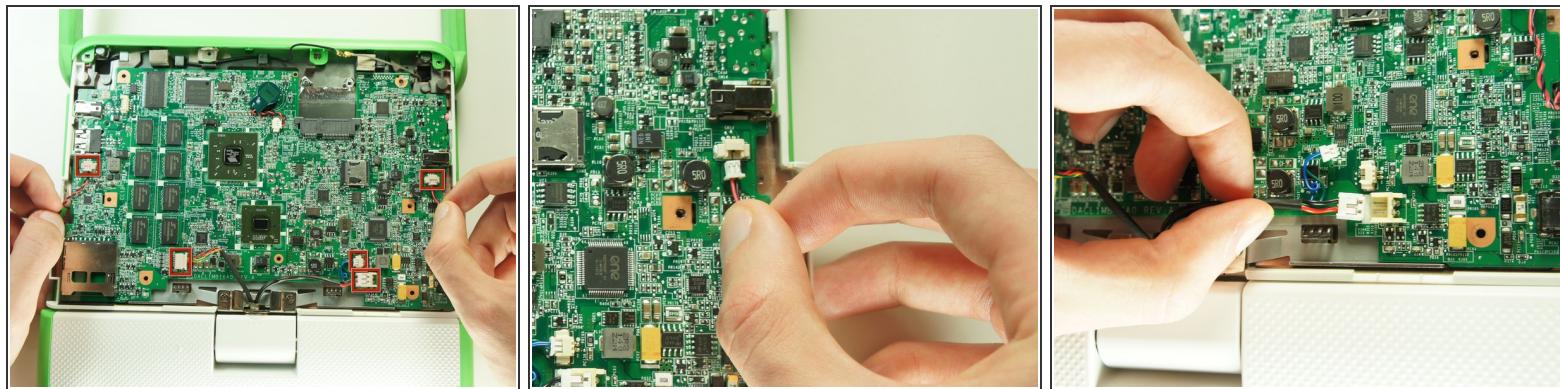
(i) The wireless card will pop up at an angle.

Step 16



- Remove the wireless card by gently lifting it out of the socket.

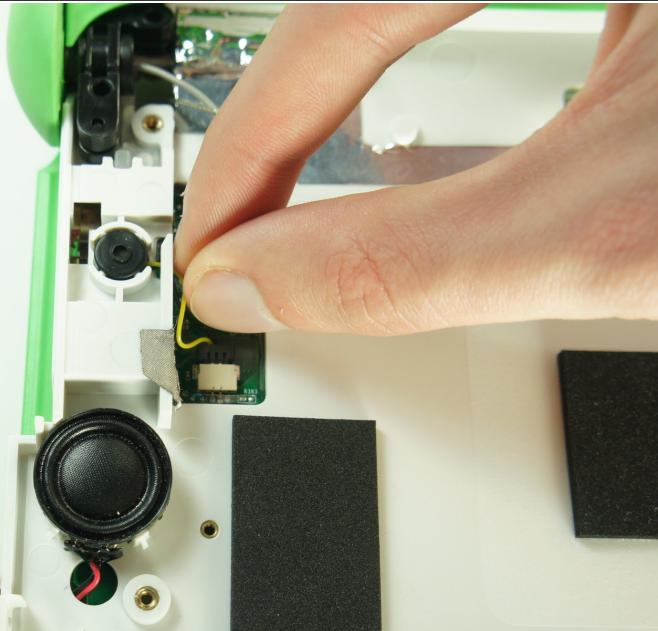
Step 17 — Motherboard



- Disconnect the five cables that connect the motherboard to the case by pulling them straight out of their sockets.

⚠ The motherboard is still attached to the case by a microphone cable. Do not remove the motherboard or you will damage the cable.

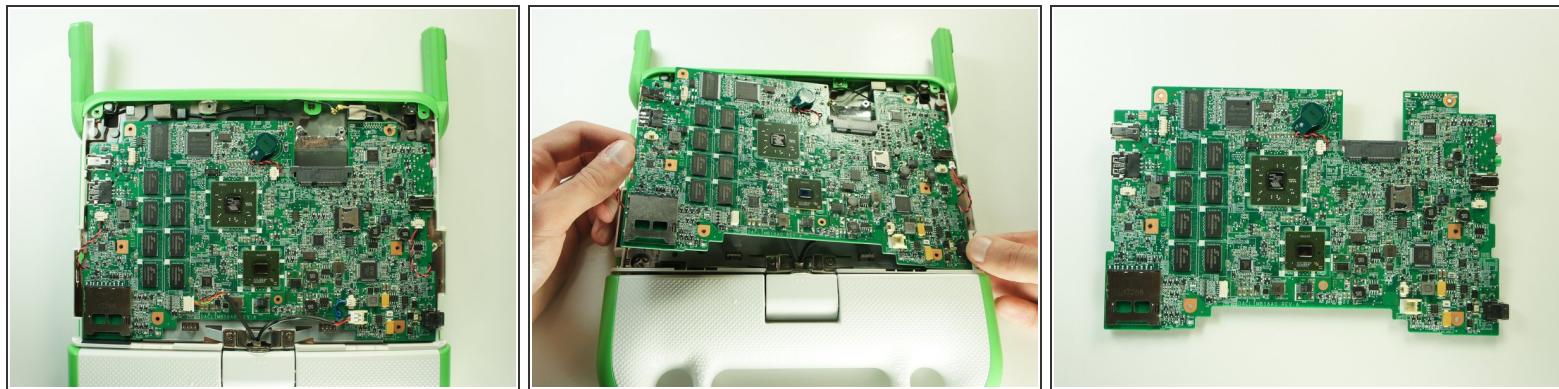
Step 18



i Rotate the device 180° and open the lid.

- Disconnect the microphone cable by pulling its connector straight out of its socket on the motherboard.

Step 19



(i) Close the lid and rotate the device 180°.

- Lift the left edge of the motherboard and remove it from the case.

⚠ Make sure that the microphone and headphone jack don't catch on the case as you are removing the motherboard.

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