



# IBM ThinkPad T42 Teardown

Basic outline on complete disassembly of this laptop computer.

Written By: eric



# INTRODUCTION

## Disassembly outline

1. Battery
  - Hard Drive
  - Optical Drive
2. Memory Cover
  - RAM Memory
3. Keyboard/Trackpad/Top Cover
  - Mini-PCI Slot
  - Wi-Fi Card
  - Internal Battery
  - Display
4. Side Bezel
  - Video Card / Fan
    - Processor
5. Metal Casings
6. Plastics
  - Motherboard

## TOOLS:

- 2.5 mm Flathead Screwdriver (1)
- Phillips #0 Screwdriver (1)

## Step 1 — Complete Disassembly



### ● Removing the battery

- Unplug the power cable before removing the battery.
- Slide the 2 sliders on the under side of the laptop to the unlock position, as shown.
- Grasp the battery and pull it straight out - not at an angle.

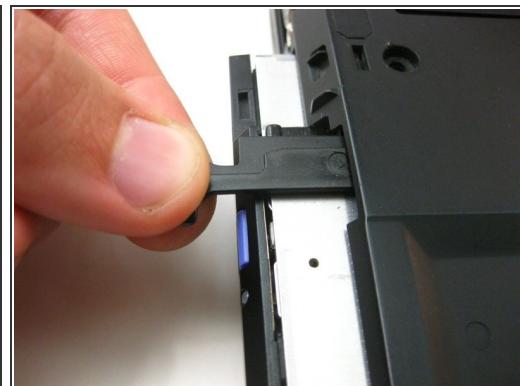
## Step 2



### ● Removing the Hard Drive

- Unscrew the screw holding the Hard Drive slot in place.
- Pull the hard drive out with the help of pictured ridges. Cautiously maneuver it out - it might help to open the display slightly.

## Step 3



### ● Removing the Optical Drive

- Remove the screw holding the optical drive on the underside of the laptop
- Push the small slider to unlock position, a tab will automatically pop out.
- Pull tab to dislodge the optical drive, then pull the drive out.

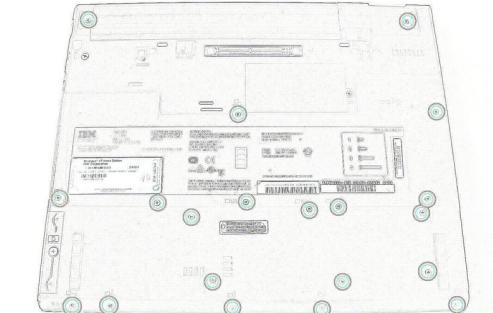
## Step 4



### ● Removing Memory Cover/Replacing RAM

- Unscrew the pictured screw holding the memory cover in place.
- Pry the cover open carefully (flathead screwdriver might help)
- To remove the RAM memory stick, push both metal pieces holding it in place outwards, and the stick will pop up. -picture of RAM inside -
- Pull the stick out carefully. - Picture of the RAM stick -

## Step 5



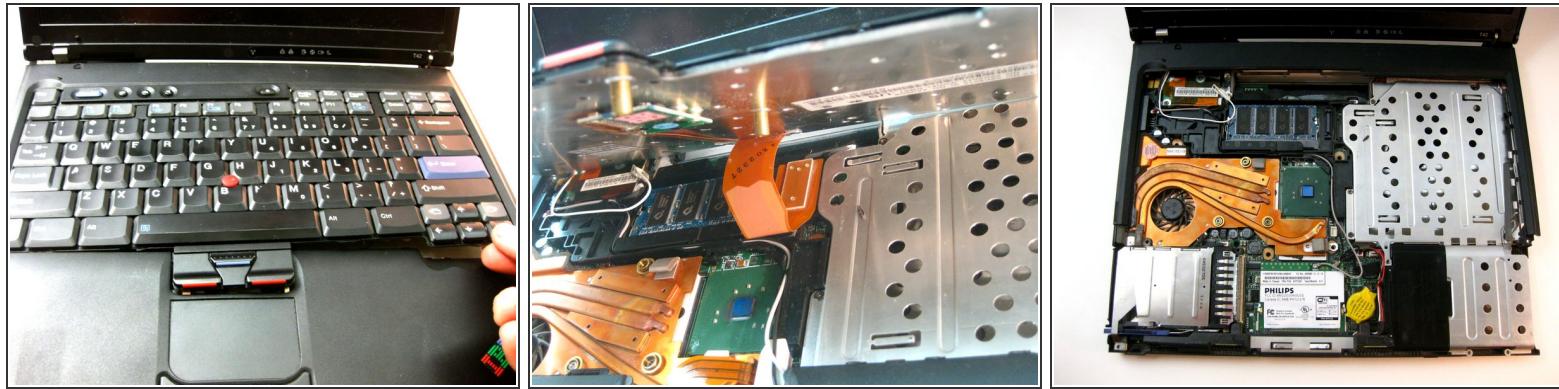
### ● Removing Rear Cover

- Unscrew the rest of the screws on the underside of the T42.
- Unscrew the 4 screws on either side the rear end of the laptop.

● **Note: for ease of reassembly, keep track of which screws go where.**

● [ a line-drawing version is included so it can be printed and screws can be taped on ]

## Step 6



### ● Removing Keyboard and Trackpad

- Flip the laptop over and open the display carefully - the keyboard, palm rest and bezel will be loose.
- Maneuver the palm rest away from the keyboard carefully, both the keyboard and palm rest/trackpad will come off together.
- **\*\*WARNING\*\*** Both the keyboard and trackpad have connectors to the motherboard. Disconnect these before completely removing either component.

## Step 7



- From here you can remove multiple components.

- Removing Wi-Fi Card**

- To remove Wi-Fi card, first disconnect both display wires on the top right.
- Then slide both of the metal pieces holding it down outwards, and it will pop up.
- Carefully pull it out.

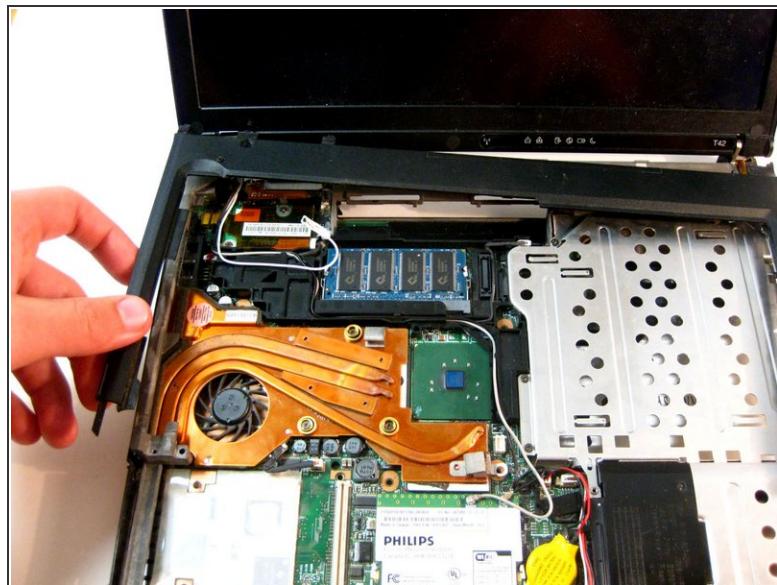
## Step 8



- Removing Mini-PCI Port**

- Unscrew the screw holding the port's bracket down, then remove the bracket.
- Carefully disconnect it from the motherboard.

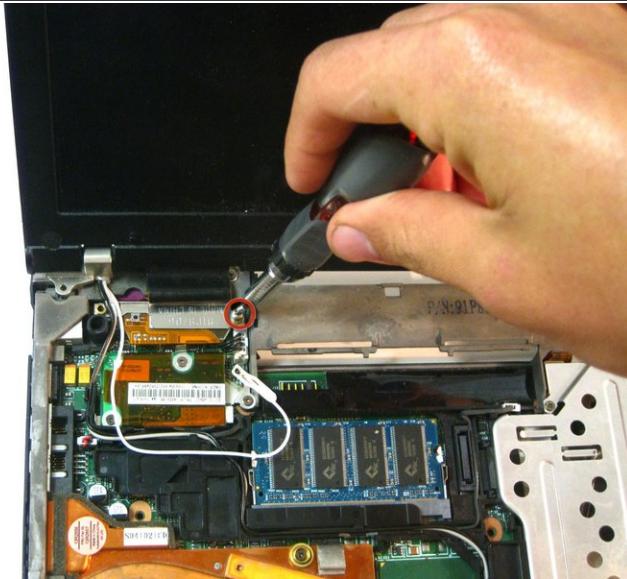
## Step 9



### ● Removing Top Plastic

- Starting from the bottom right, carefully pry off the bezel. Use a small, flathead screwdriver if necessary.

## Step 10



### ● Removing the Display

- To remove the display, unscrew the screws holding it down. Along with the one pictured, there is another one on the top right edge.
- Carefully unplug the its connection with the motherboard.
- Now it will be free to move. Carefully maneuver it out.

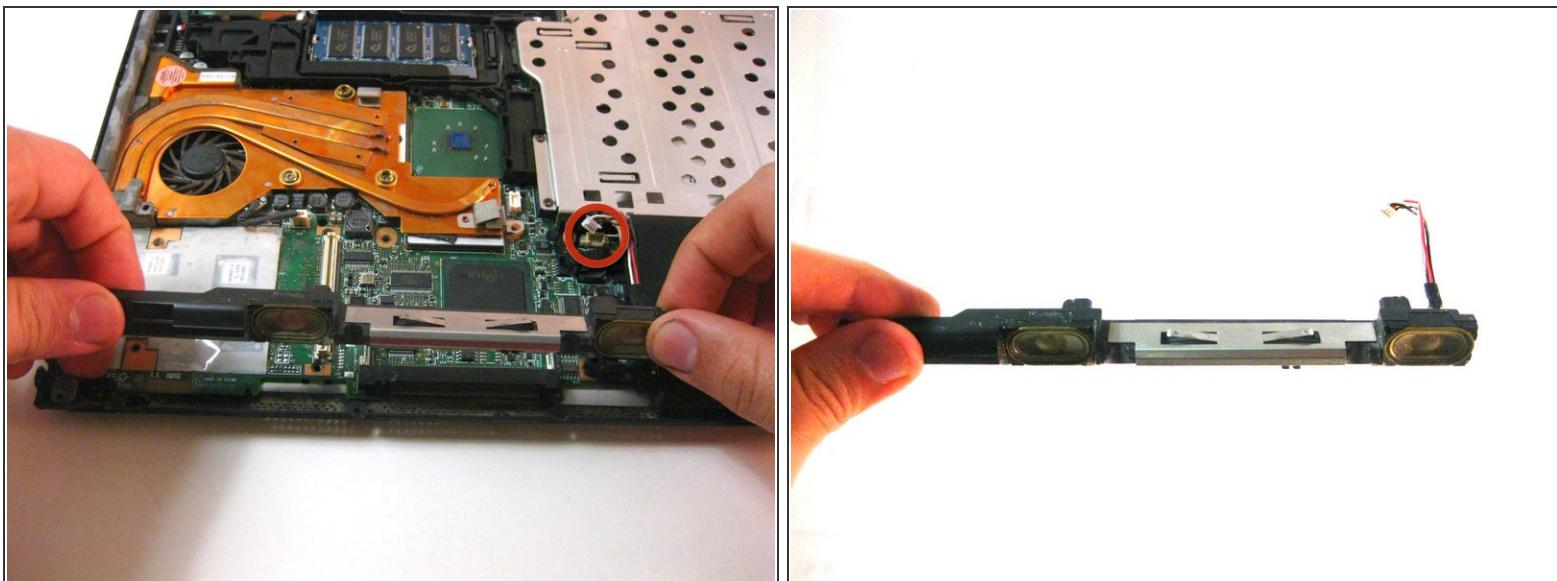
## Step 11



### ● Removing Lower Bracket

- The bracket will be free to move, so remove it.
- Then remove the small rubber piece covering the small battery.

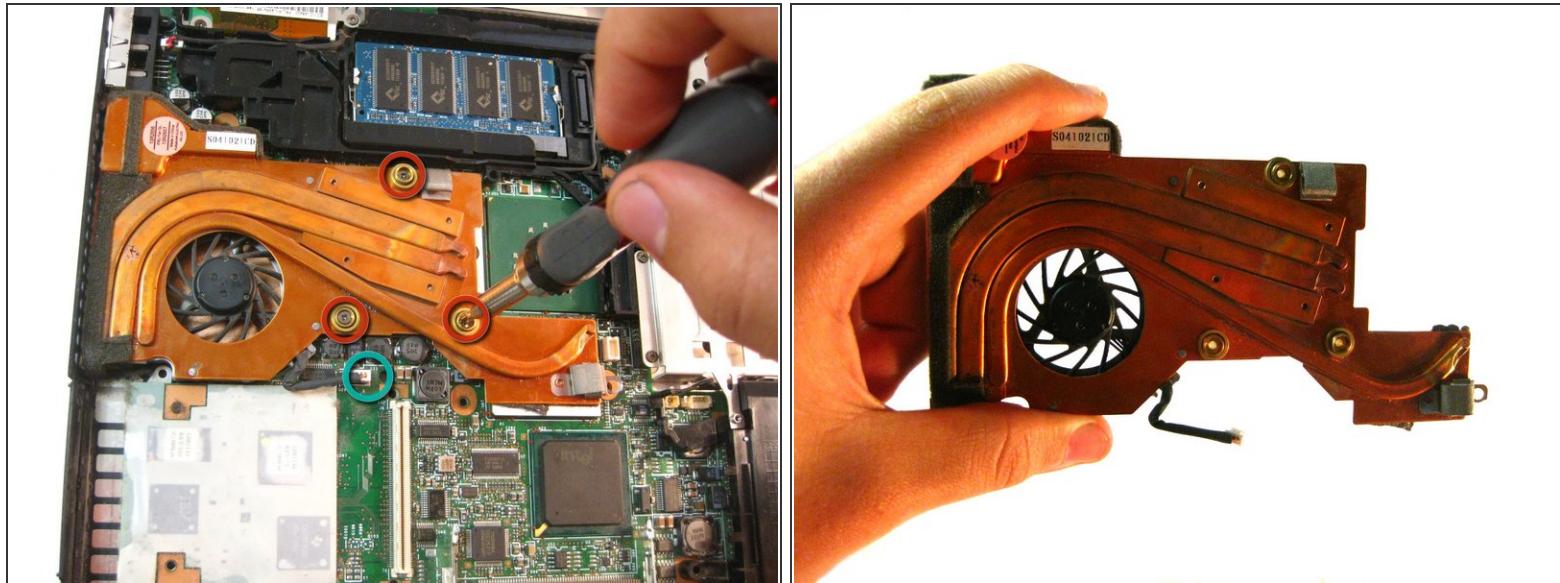
## Step 12



### ● Removing Speakers

- This component is free to move, so disconnect its connector and pull it out carefully.

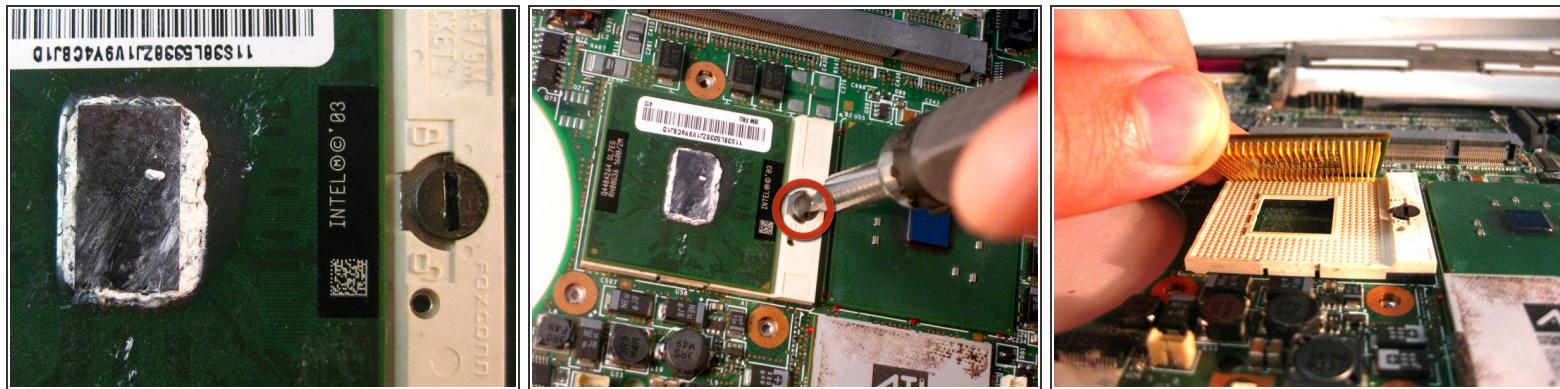
## Step 13



### ● Removing Fan

- Unscrew the three shown screws, then unplug its connection with the motherboard.
- \*\*Since both the processor and graphics processor unit are attached to this fan with thermal paste, removing the fan might require some force and a flathead screwdriver to separate the paste from the fan.

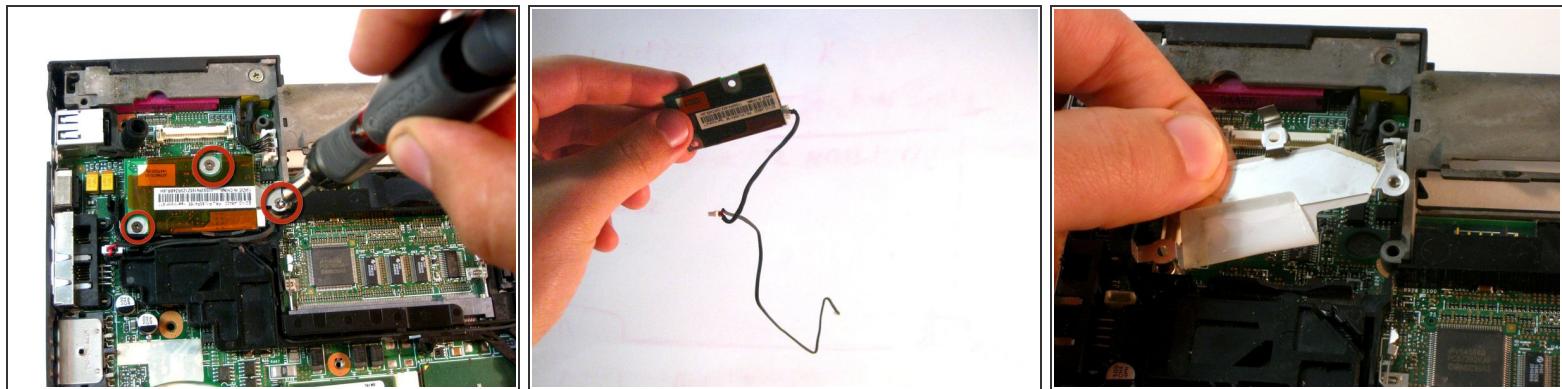
## Step 14



### ● Removing Processor

- After removal of the fan, you have access to the processor. Locate its locking mechanism.
- Use a flat head screwdriver and twist it carefully to the "unlocked" position.
- Carefully pull the processor out.
- **\*\*\*CAUTION - If replacing the processor, make sure the small arrow on the corner aligns with socket.**

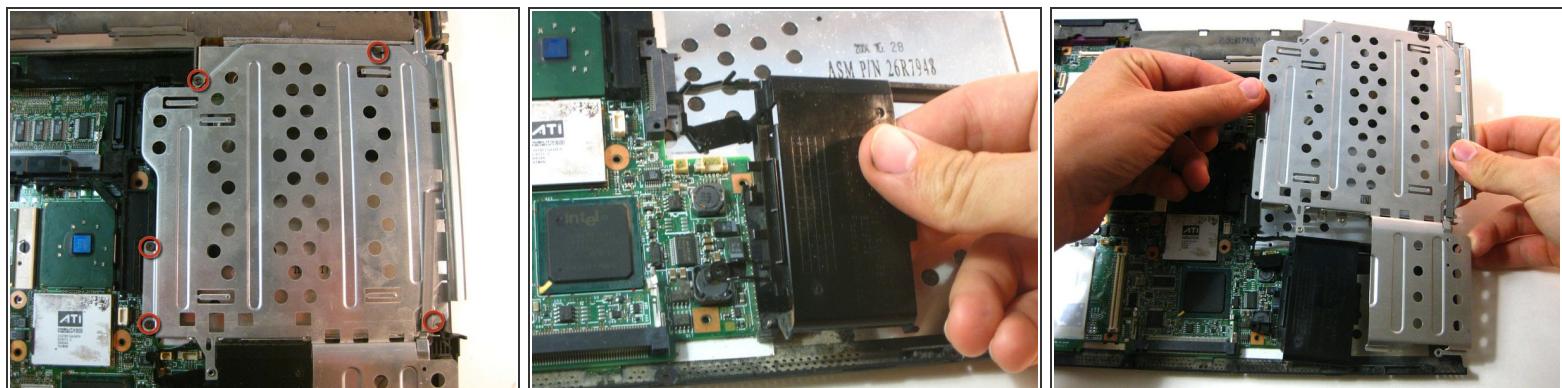
## Step 15



### ● Removing Modem Daughter Card

- Unscrew three phillips screws as shown.
- The connector cables are wrapped around components for organization so follow these, unplug them and carefully pull them free.
- Then remove the bracket that was sitting beneath it.

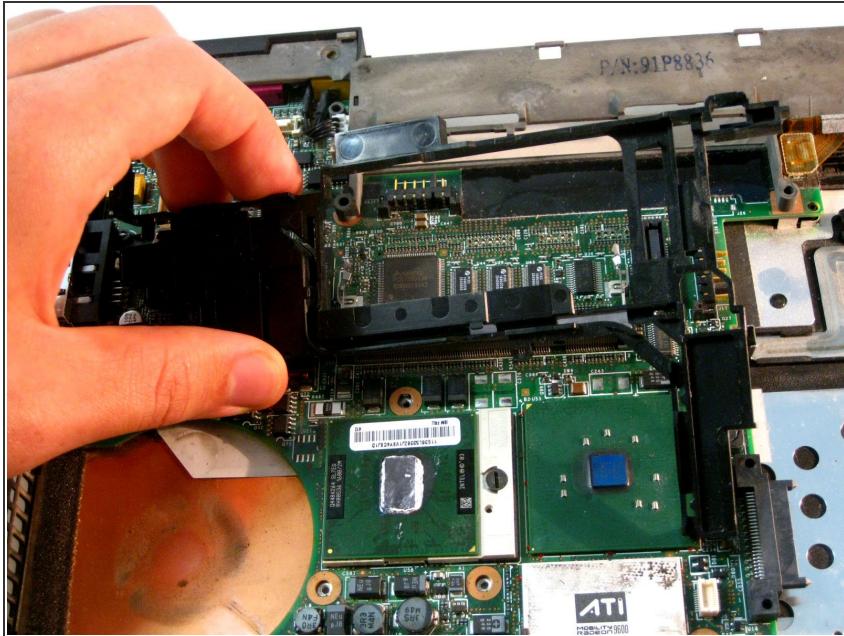
## Step 16



### ● Removing Metal Casing

- Unscrew the Philips head screws as shown
- It is attached to the smaller black plastic piece below it - carefully maneuver both of them out at the same time.

## Step 17



- **Removing Plastic**

- This will be free to move, so pull it out.

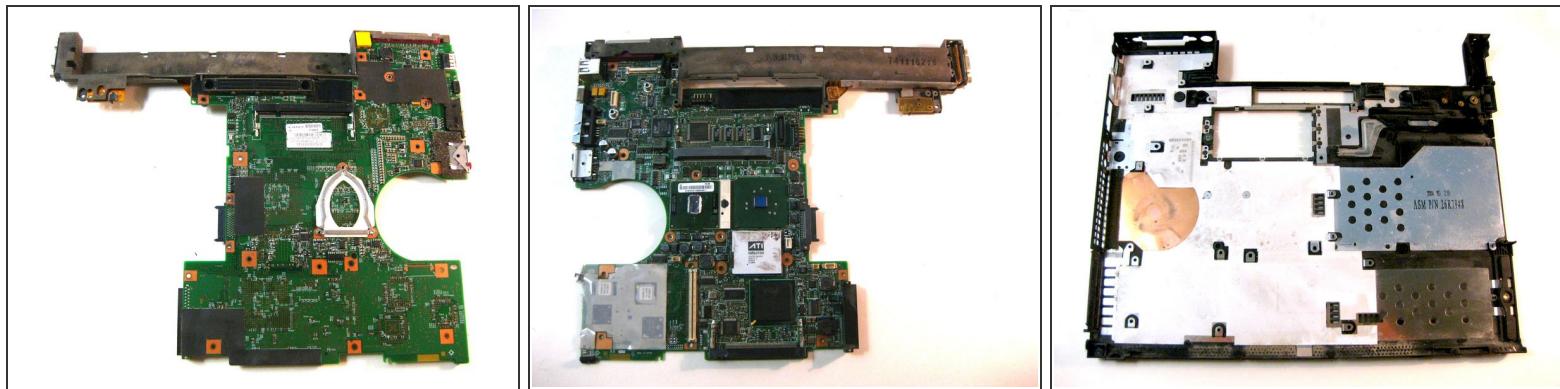
## Step 18



- **Removing Motherboard**

- Unscrew Phillips screws shown in red in the picture.
- Unplug the connector (shown in turquoise)
- Carefully remove the board

## Step 19



### ● Congratulations

- Now you're left with the motherboard and the bottom casing
- This is as far as the teardown goes.

To reassemble your device, follow these instructions in reverse order. Remember when reassembling to apply a thin layer of thermal compound on the CPU block.