IBM ThinkPad T42 Teardown

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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)

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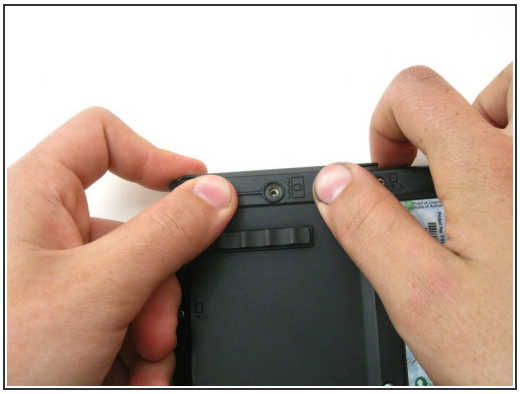
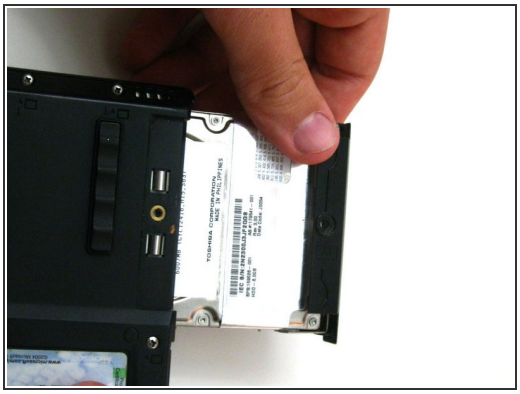
Step 1 — IBM ThinkPad T42 Teardown





- **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.

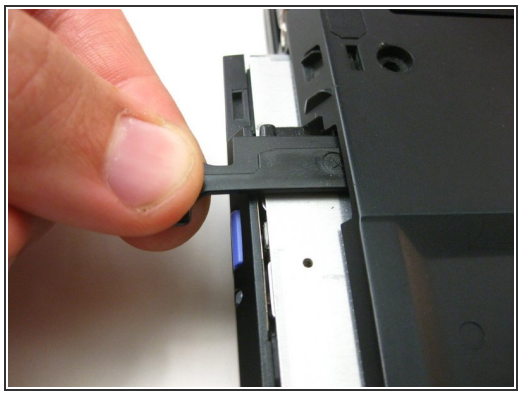
Step 2

- **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

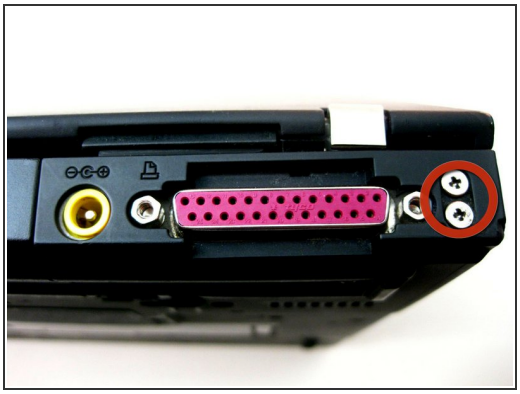
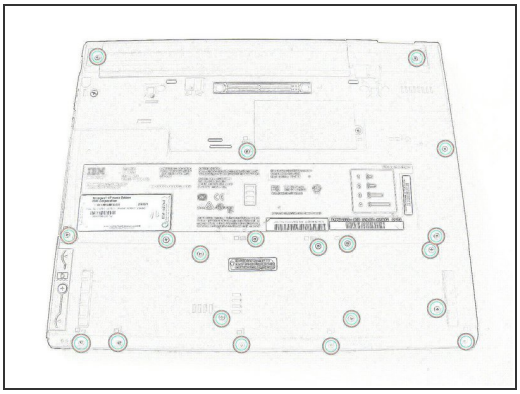




- **Removing Memory Cover/Replacing RAM**
  - Unscrew the pictured screwed holding the memory cover in place.
  - Pry the cover open carefully (flathead screwdriver might help)
  - To remove the RAM memory stick, push both metal pieces holding it in place outwards, and the stick will pop up. -picture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

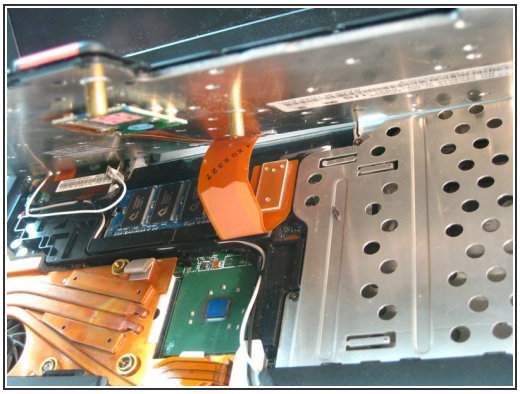
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Step 5

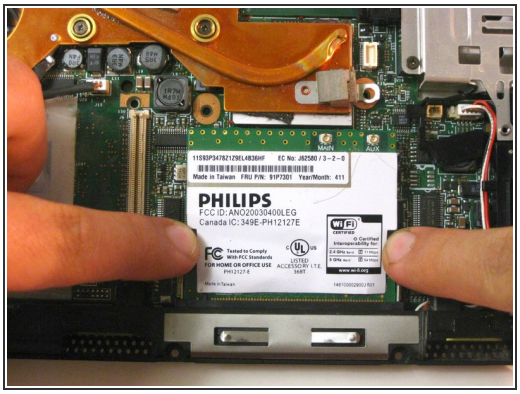
- **Removing Rear Cover**
  - Unscrew the rest of the screws on the underside of the T42.
  - Unscrew the 4 screws on either side the rear end of the laptop.
- **Note: for ease of reassembly, keep track of which screws go where.**
- [a line-drawing version is included so it can be printed and screws 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.

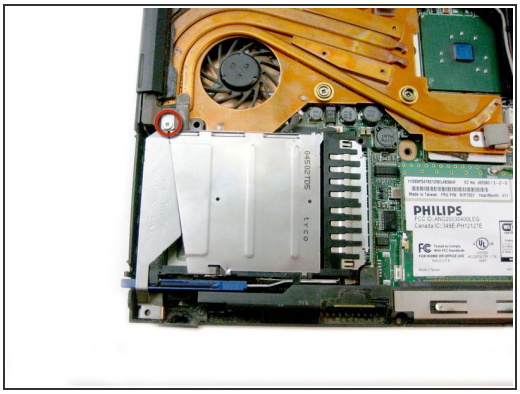
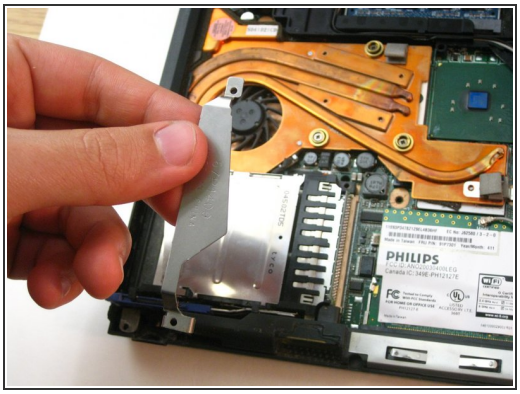
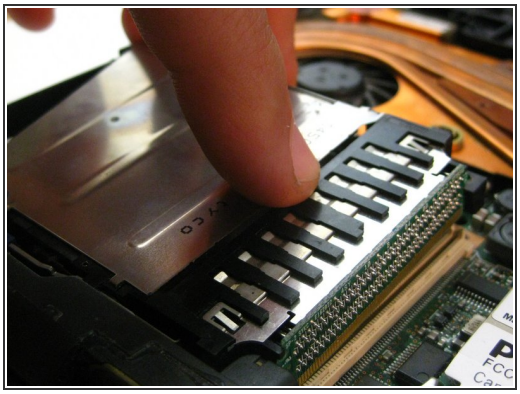
Step 7



- 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.

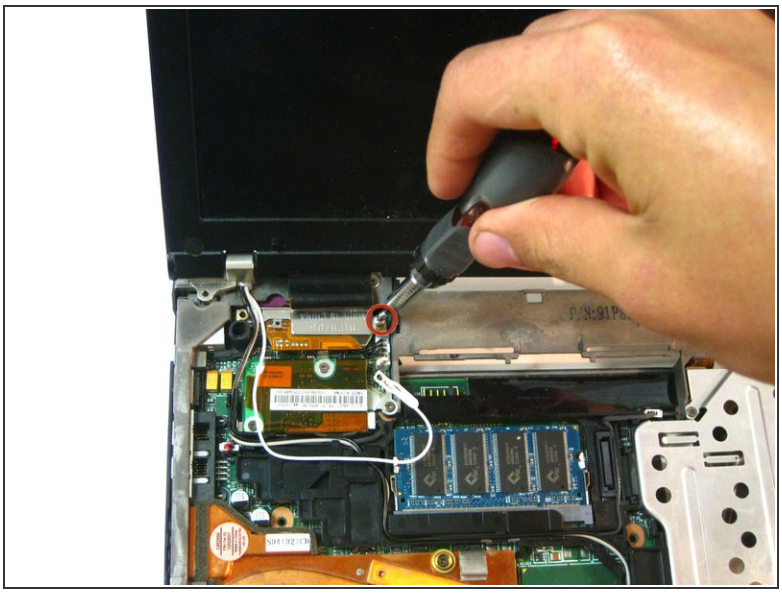
Step 9

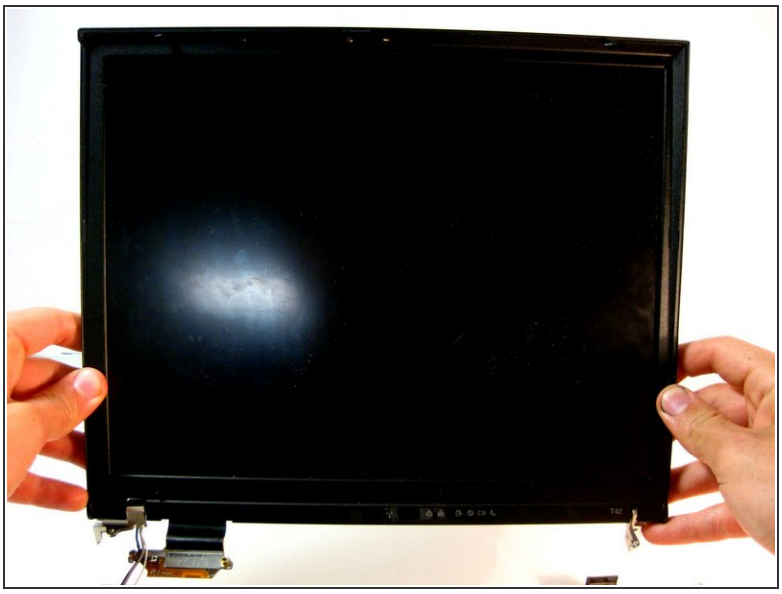




- **Removing Top Plastic**
  - Starting from the bottom right, carefully pry off the bezel. Use a small, flathead screwdriver if necessary.

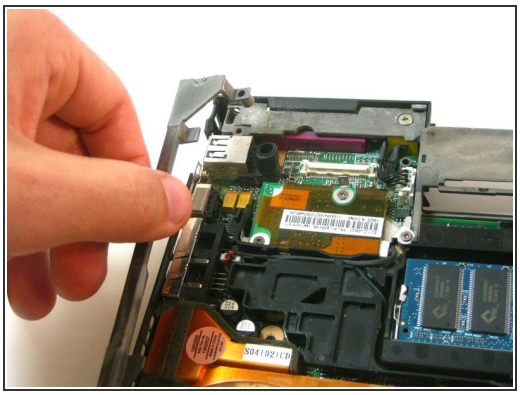
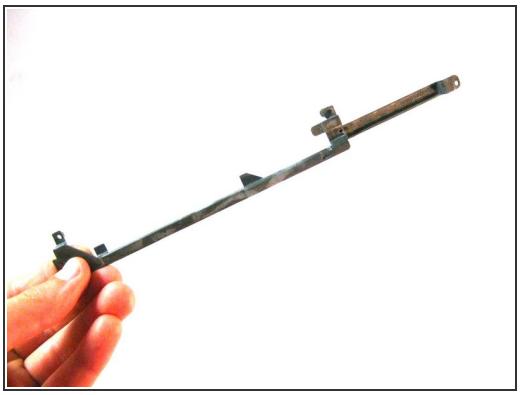
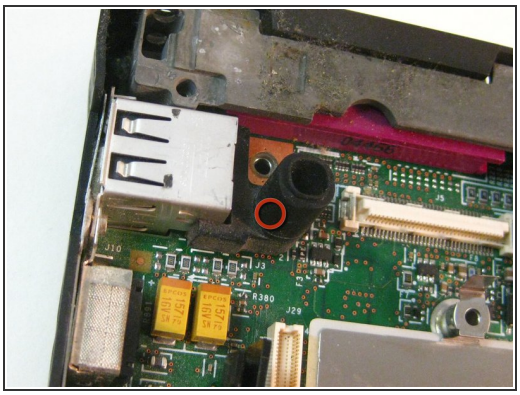
Step 10





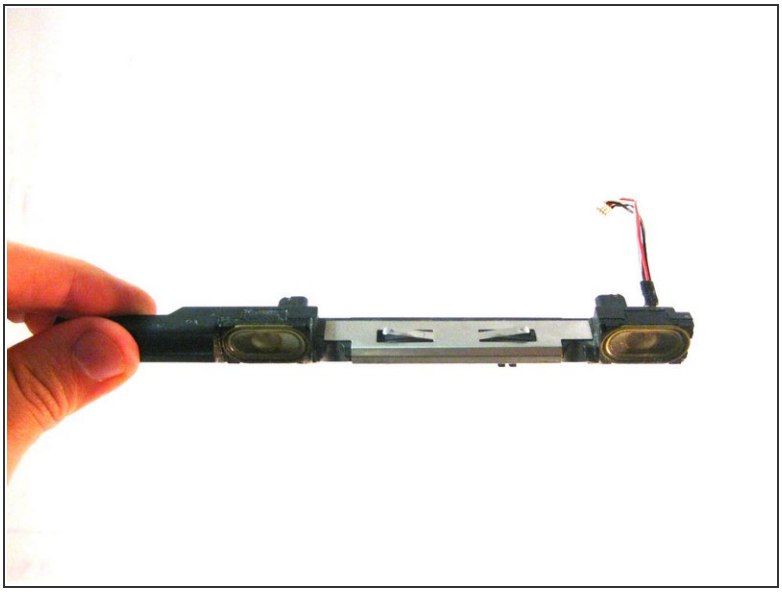
- **Removing the Display**
  - To remove the display, unscrew the screws holding it down. Along with the one pictured, there is another one on the top right edge.
  - Carefully unplug the its connection with the motherboard.
  - Now it will be free to move. Carefully maneuver it out.

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.

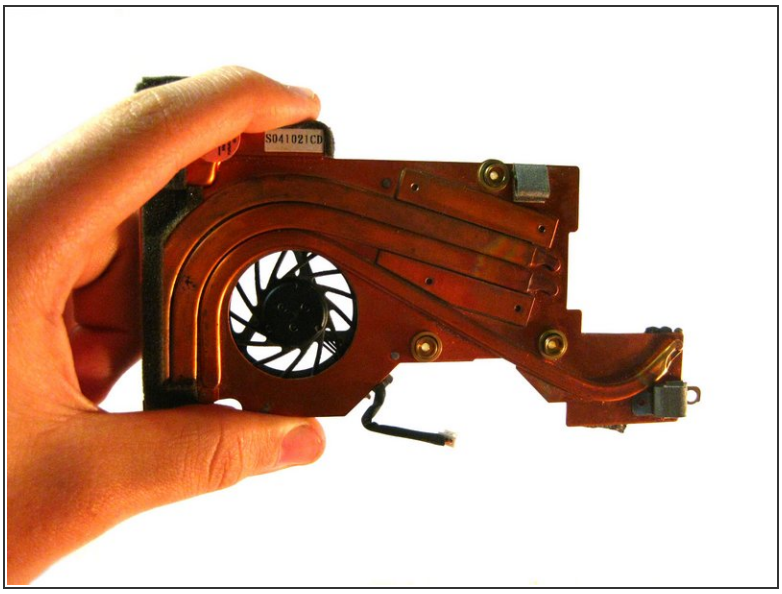
Step 12

- **Removing Speakers**
  - This component is free to move, so disconnect it's connector and pull it out carefully.

Step 13

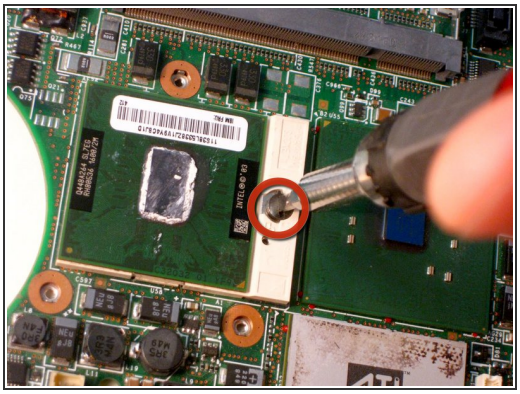
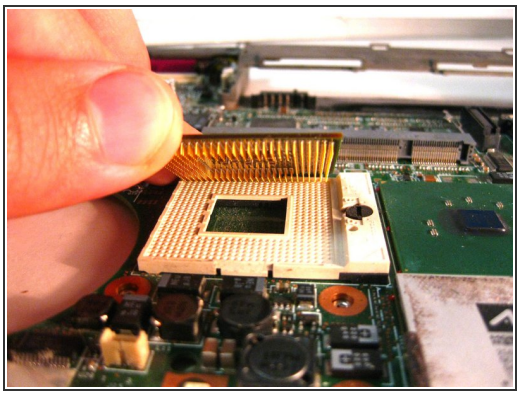




- **Removing Fan**
  - Unscrew the three shown screws, then unplug its connection with the motherboard.
  - **Since both the processor and graphics processor unit are attached to this fan with thermal paste, removing the fan might require some force and a flathead screwdriver to separate the paste from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

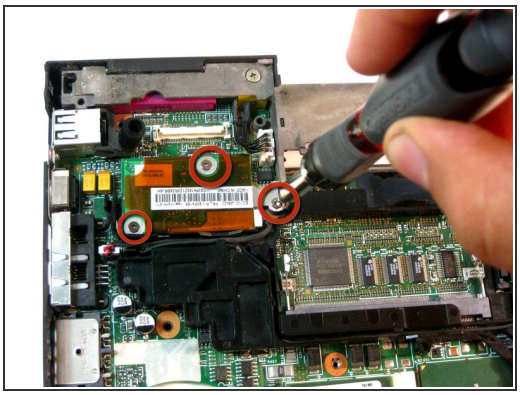
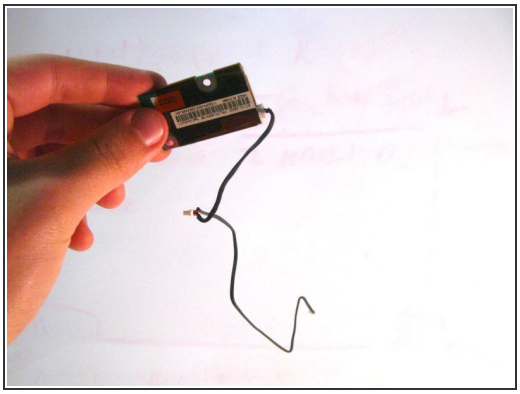
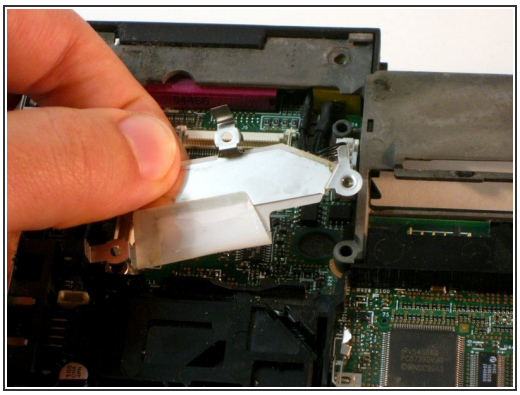
Step 14



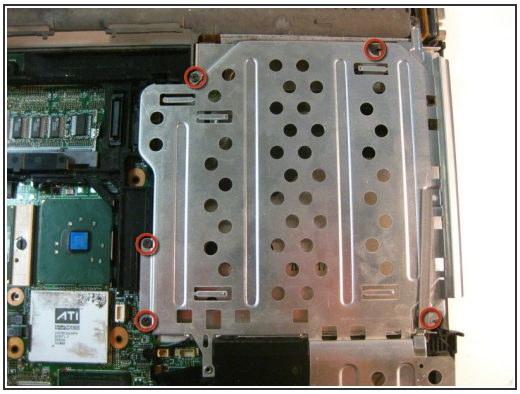
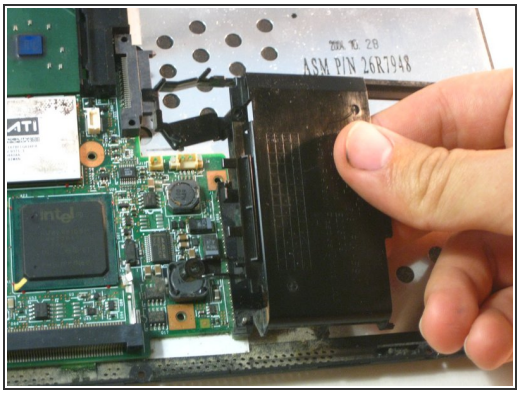
- **Removing Processor**
  - After removal of the fan, you have access to the processor. Locate its locking mechanism.
  - Use a flat head screwdriver and twist it carefully to the "unlocked" position.
  - Carefully pull the processor out.
  - ***CAUTION - If replacing the processor, make sure the small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

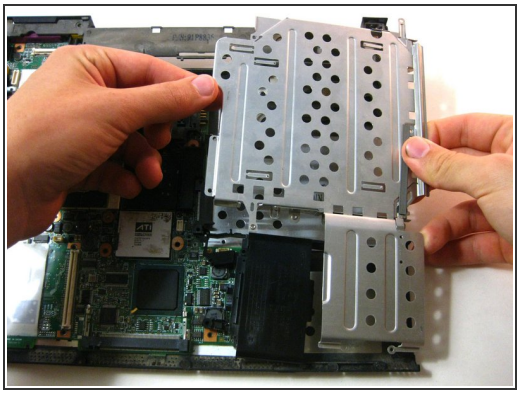
Step 15

- **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.

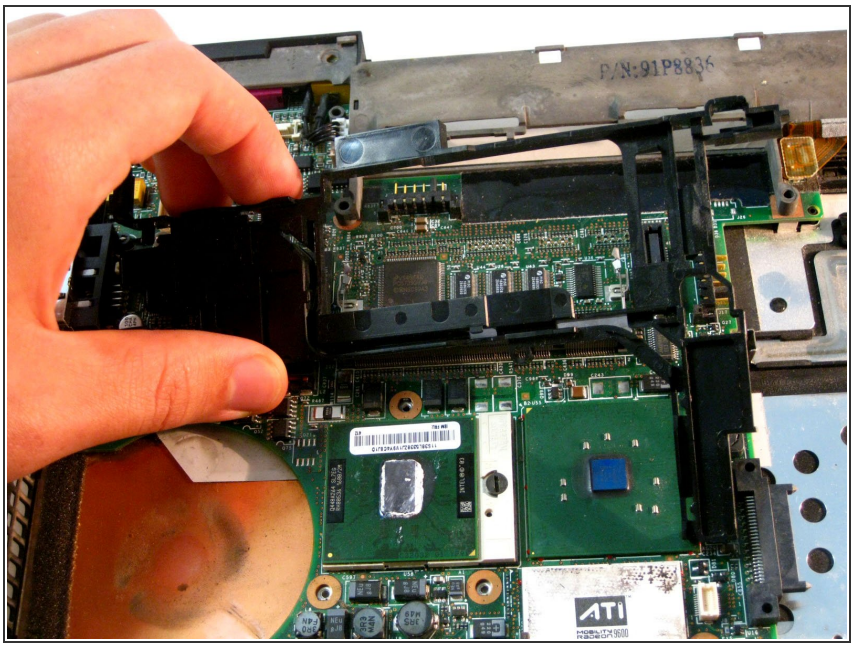
Step 16



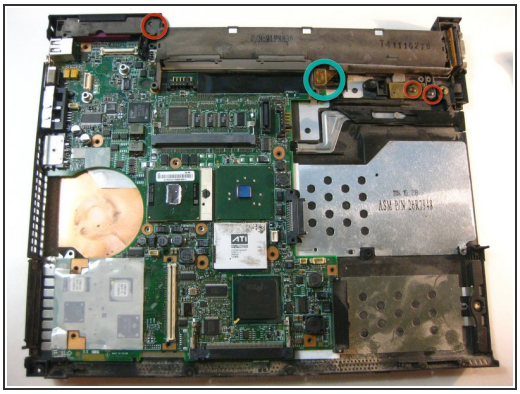
- **Removing Metal Casing**
  - Unscrew the Philips head screws as shown
  - It is attached to the smaller black plastic piece below it - carefully maneuver both of them out at the same time.

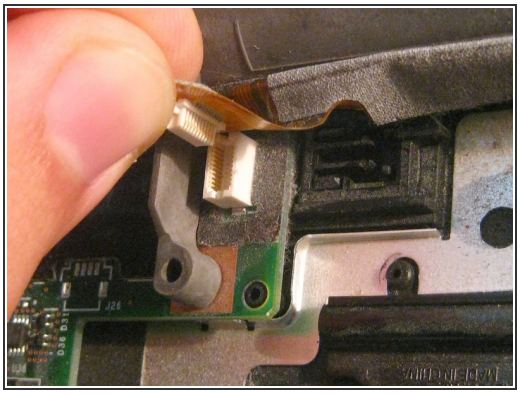
Step 17

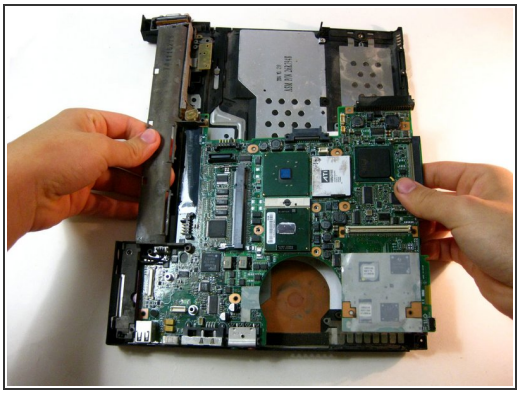


- **Removing Plastic**
  - This will be free to move, so pull it out.

Step 18

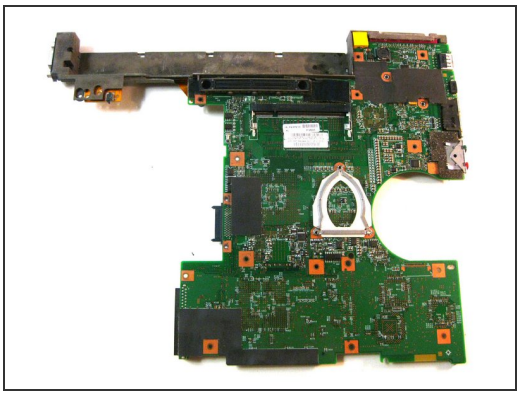
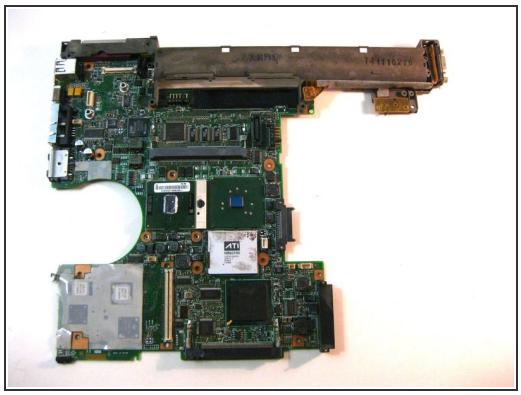
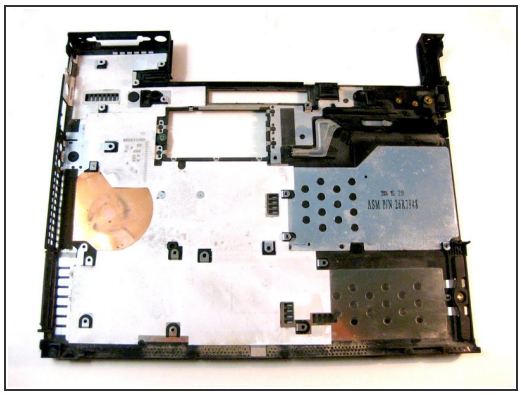






- **Removing Motherboard**
  - Unscrew Phillips screws shown in red in the picture.
  - Unplug the connector (shown in turquoise)
  - Carefully remove the board

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.

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