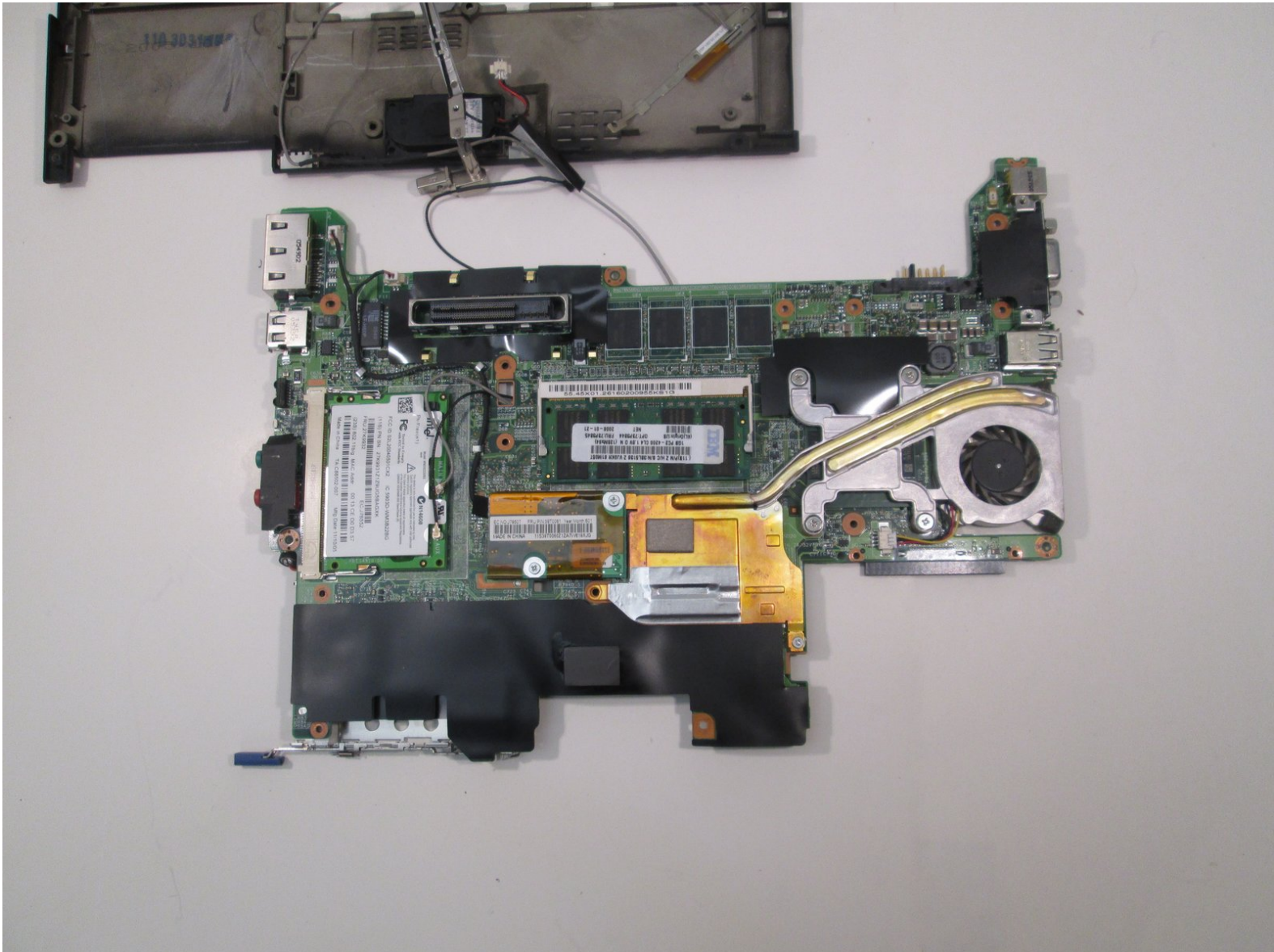




# IBM ThinkPad X41 Fan and Heat Sink Replacement

Replace the Fan and Heat Sink on an IBM ThinkPad X41.

Written By: Brian Giolli



## INTRODUCTION

This guide can be used to replace the fan and heat sink assembly in the IBM ThinkPad X41. This guide will demonstrate how to disassemble the laptop in order to reach the assembly.



### TOOLS:

- [Phillips #000 Screwdriver](#) (1)
  - [Spudger](#) (1)
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## Step 1 — Battery



- Turn laptop over, make sure lid side is faced down.

## Step 2



- Locate battery release button lock on laptop, and press down.



### Step 3



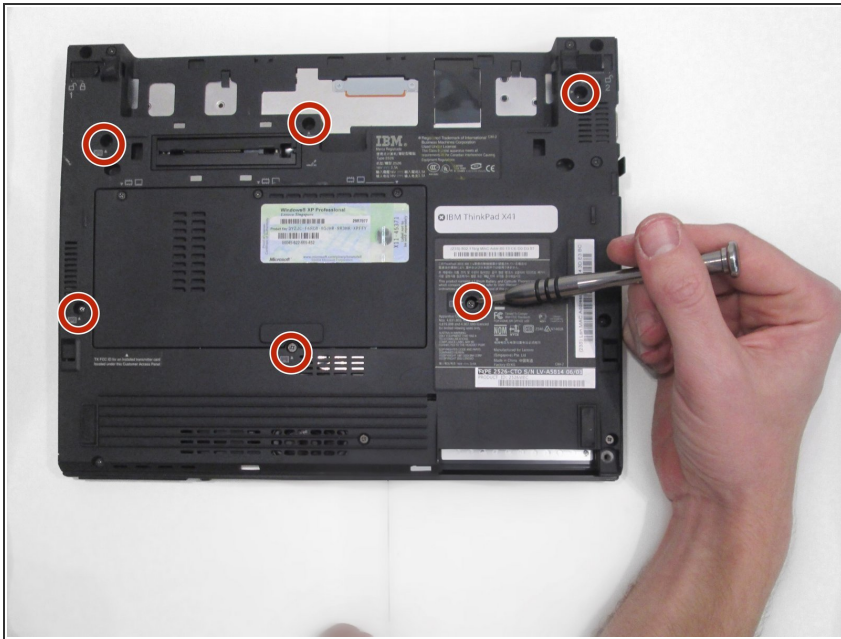
- Hold laptop battery release button and gently pull battery away from laptop.

### Step 4 — Keyboard



- Slide outward to unlock and lift battery up to remove.
- i** Remove battery before keyboard to avoid damage to battery.

## Step 5



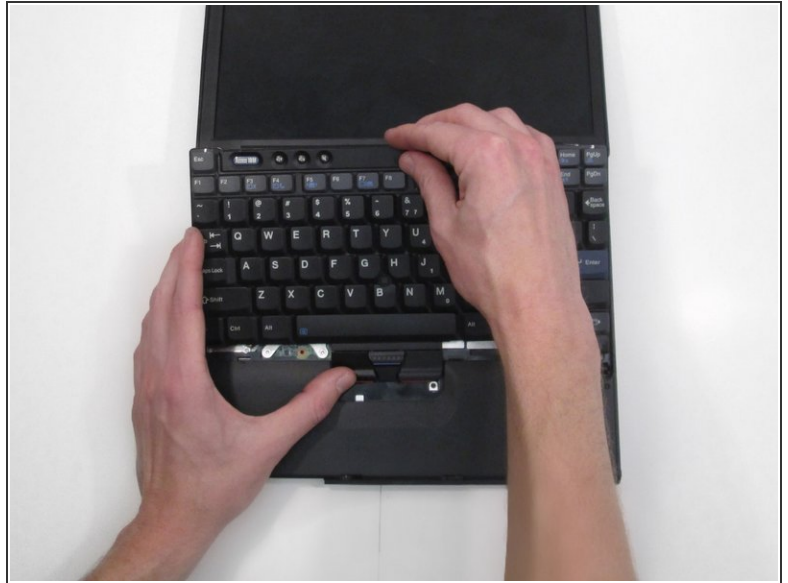
- With a Phillips PH000 to remove all six 6 mm screws identified for the keyboard as shown.

## Step 6



- Flip the laptop over once more returning it to its upright position and open laptop .

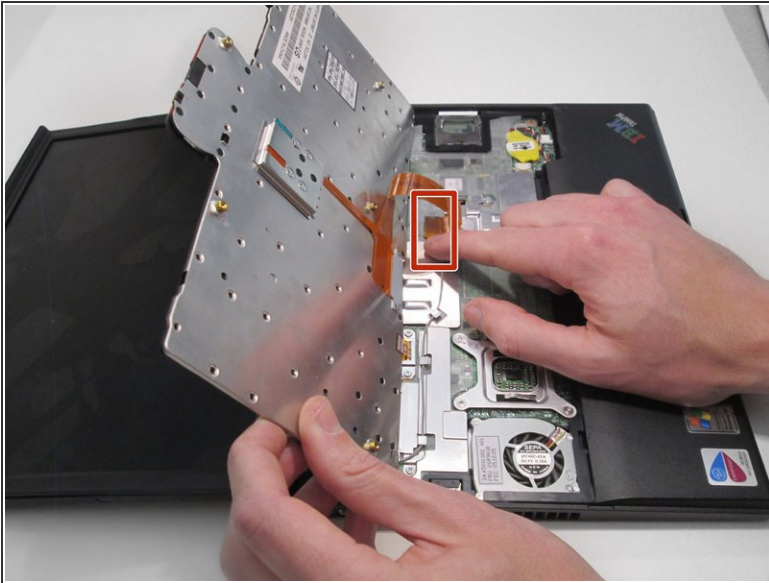
## Step 7




- Using your left hand, place thumb on the upper part of the keyboard and place your other thumb on the bottom part of the keyboard.
- Push firmly upward with both thumbs. This will detach keyboard from base.
- ⓘ Be cautious when lifting as there is an orange connection cable still attached to the bottom side.



## Step 8



- Detach the connection to the motherboard by first sliding it towards you, then pulling upward away from your body.

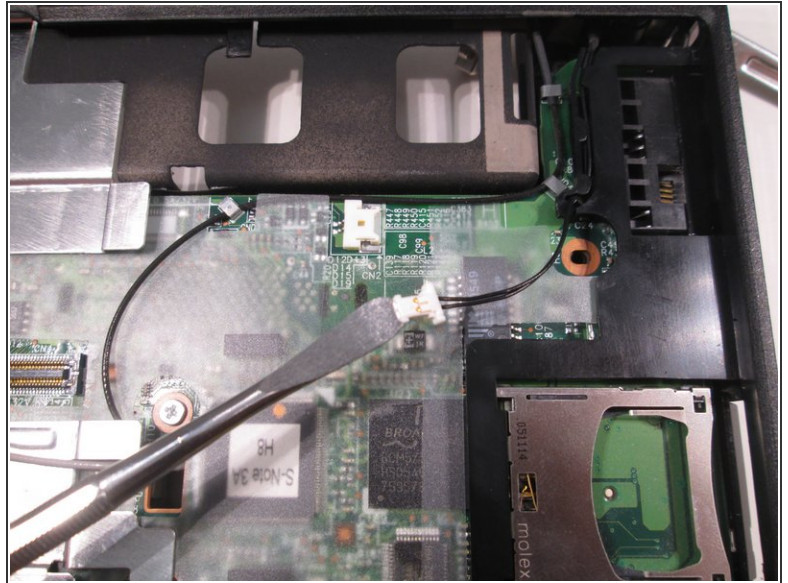
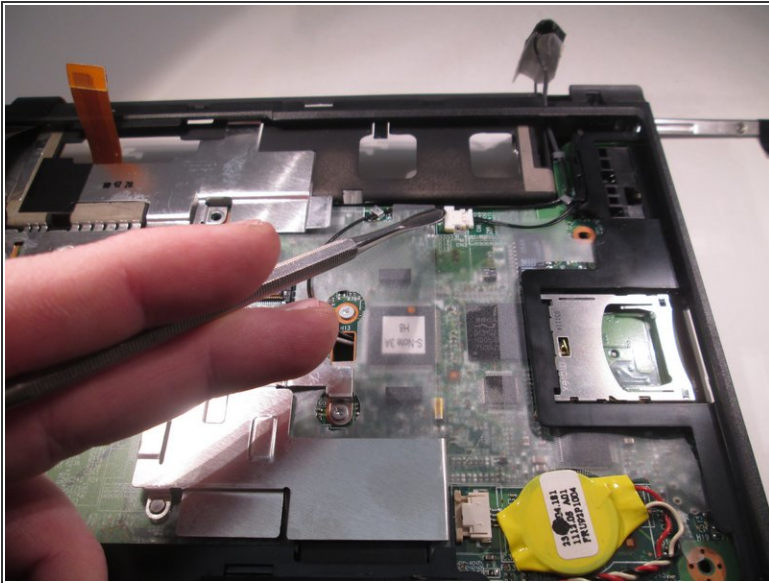
 This step's directions are based on the angle shown .

## Step 9



- Lift the entire keyboard off the laptop.

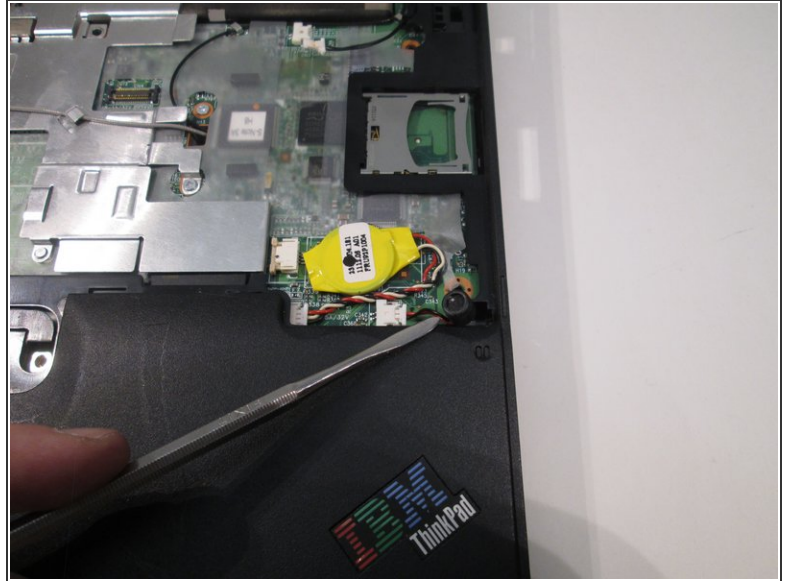
## Step 10 — Fan and Heat Sink



- At the top right of the laptop remove the white tab connected to the motherboard by pulling it to the right.
- ⚠ The regular black nylon spudger should be used whenever possible, especially around sensitive internal components.
- ℹ The display was already removed from another guide.

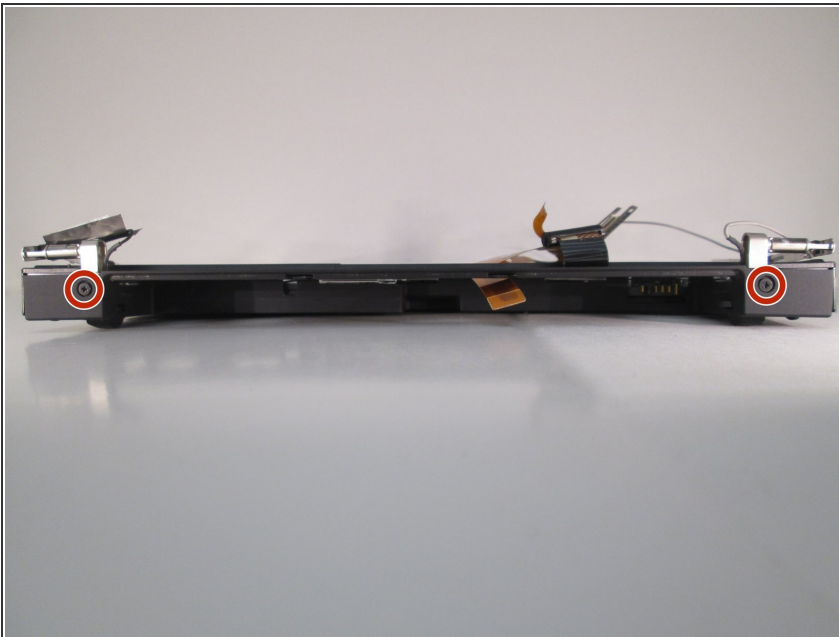


## Step 11



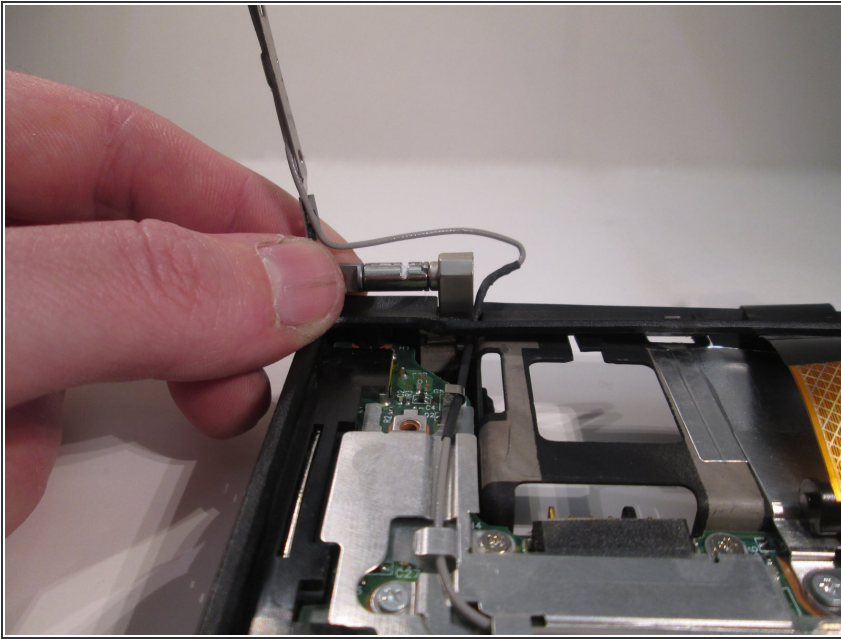
- At the bottom right of the laptop remove the black cylinder by lifting it up and out of the depression.

## Step 12



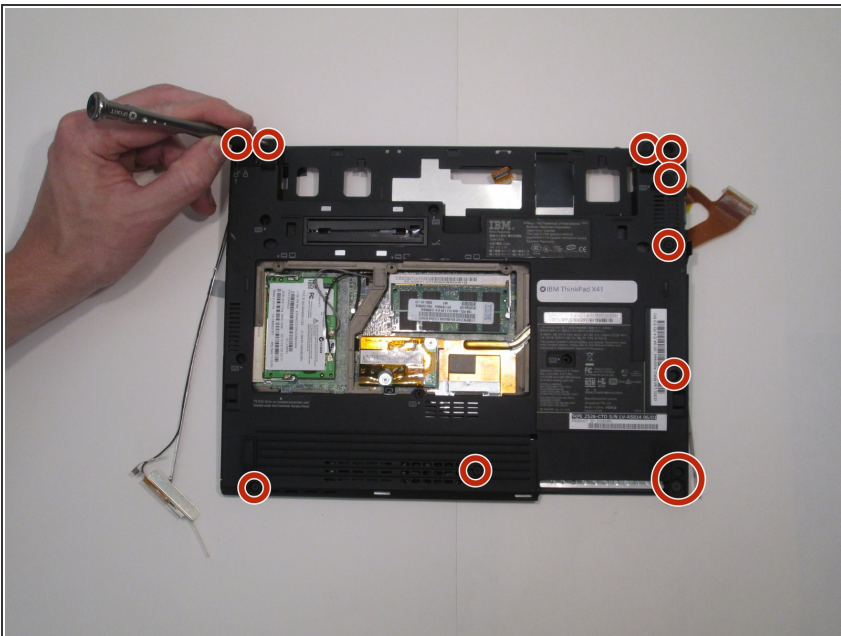
- Move to the back of the laptop.
- Remove the two 5mm screws holding the monitor and cover to the case using a phillips head screwdriver.

## Step 13



- Pull up on the metal hinges to remove the display that is held in on the two sides of the laptop.

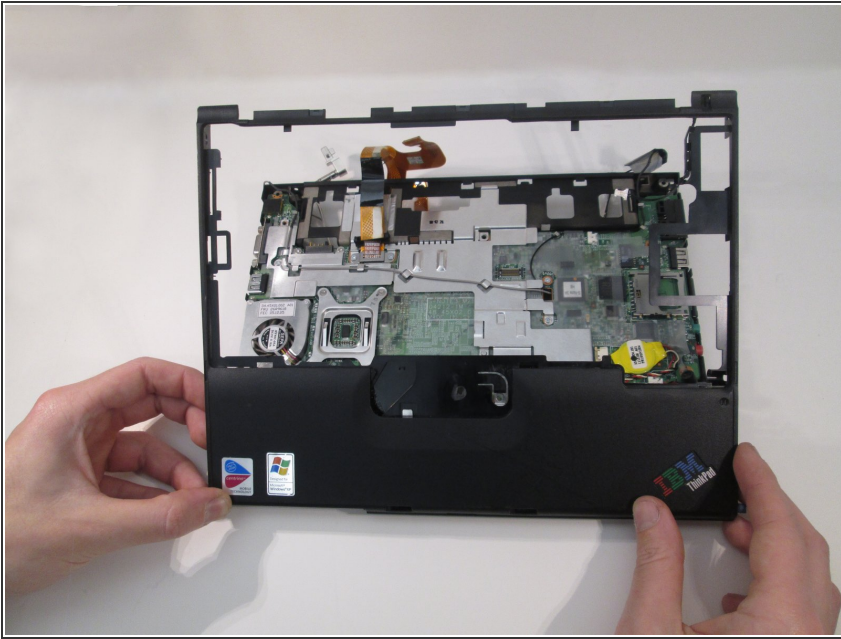
## Step 14



- Flip the laptop upside down.
- Remove the indicated 5mm screws with a phillips head screwdriver.

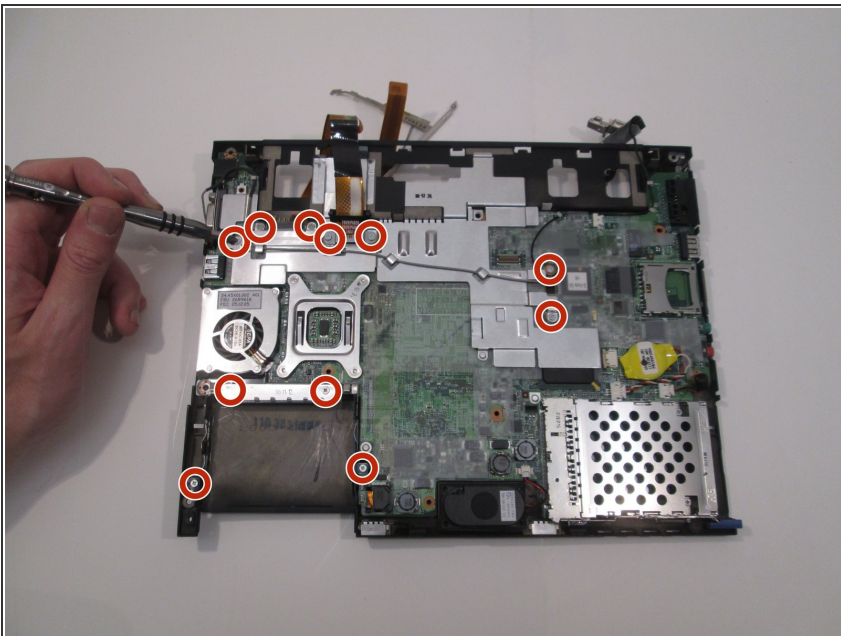


## Step 15



- With the laptop right side up facing you lift from the sides and pull the cover toward you.

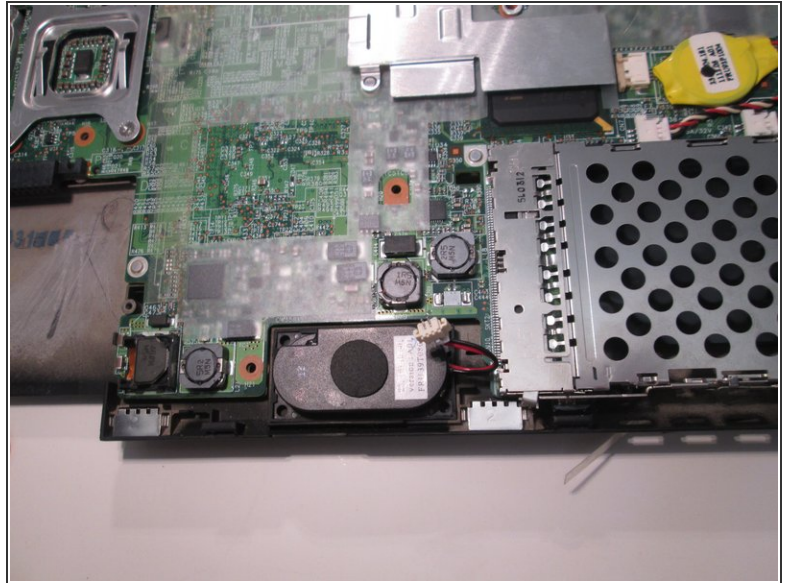
## Step 16



- Remove the indicated 4mm screws with a philips head screwdriver.

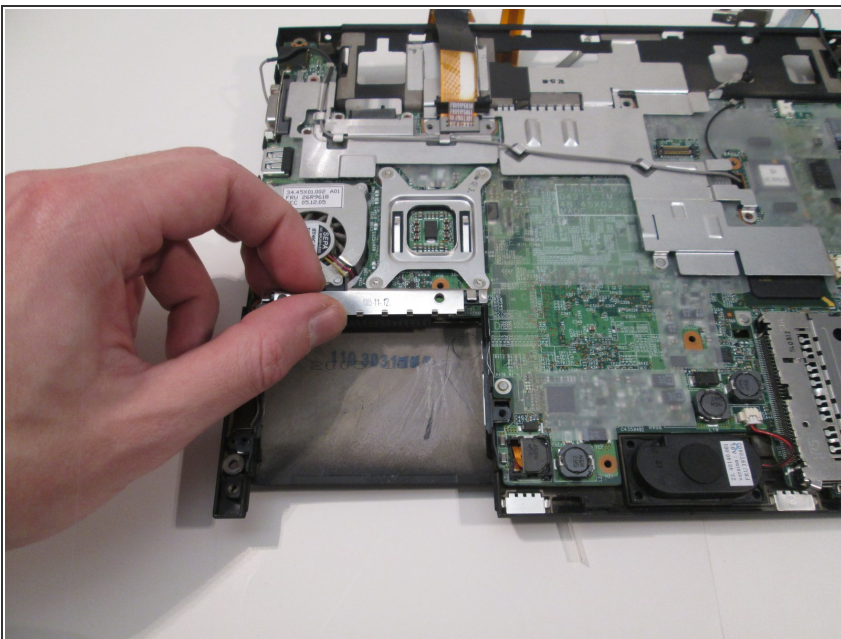


## Step 17



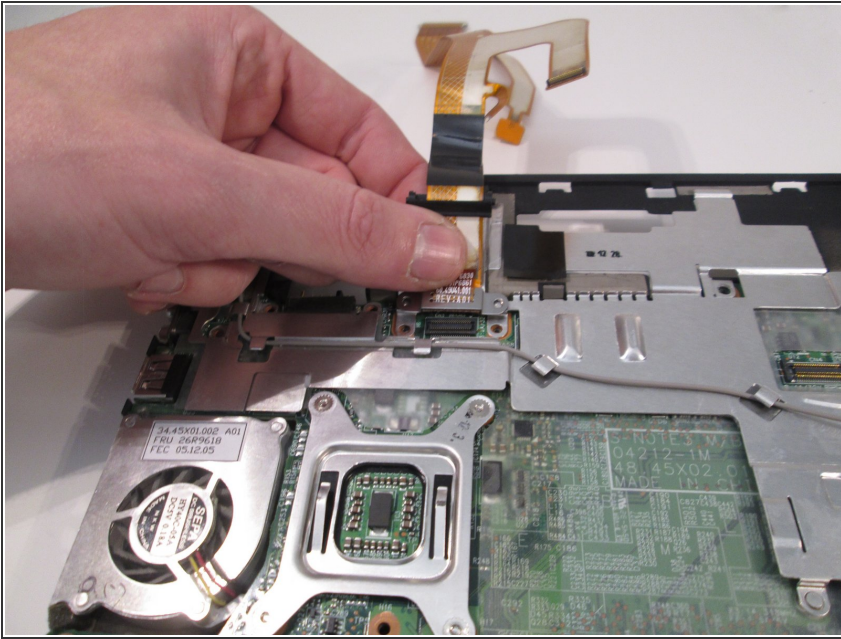
- Remove the white tab at the bottom connected to the speaker by sliding it to the right.

## Step 18



- Remove the metal bracket by pulling it up.

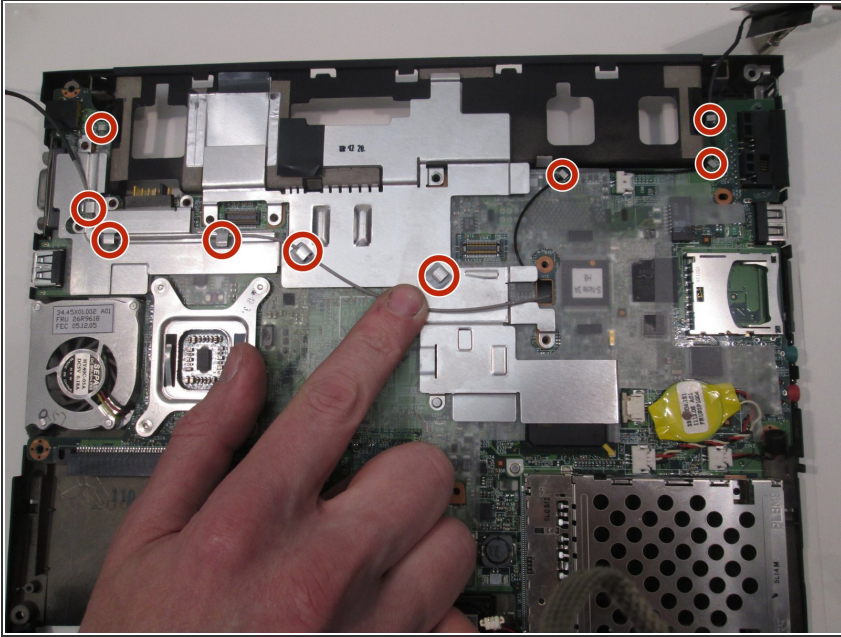
## Step 19



- Remove the display connection by pulling it up.

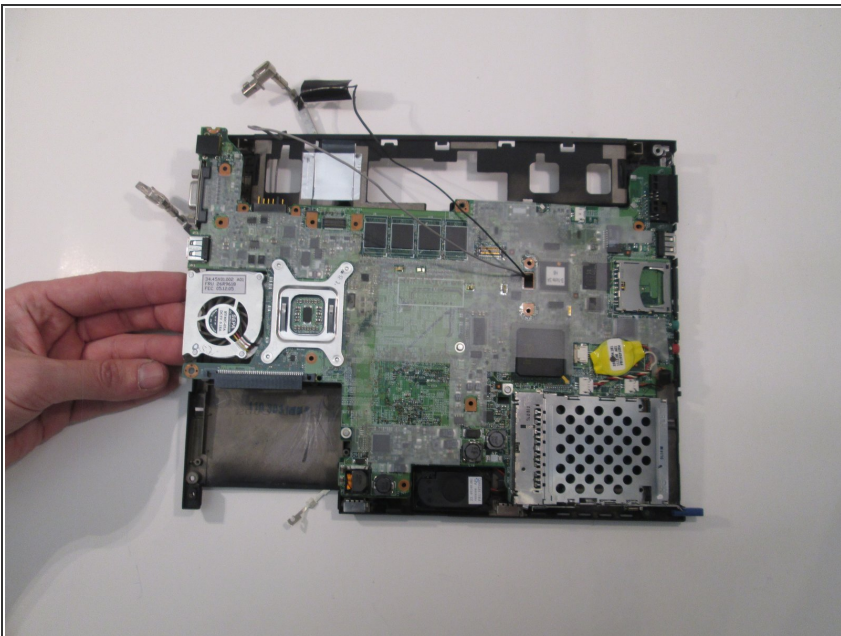


## Step 20



- Remove the metal plate covering the motherboard by removing the gray wire from the indicated hooks and pulling the plate up. While you are here remove the other black wire from the indicated hooks as well.

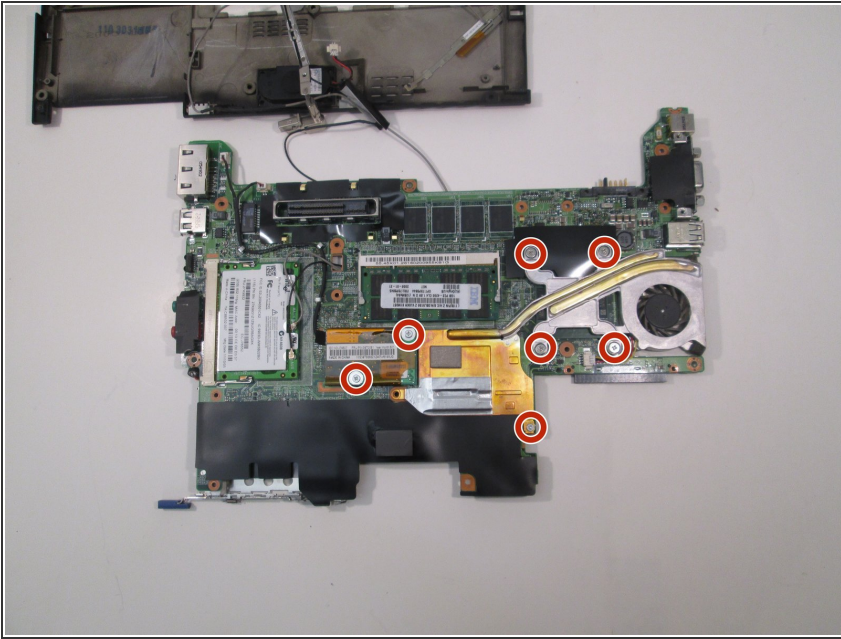
## Step 21



- The motherboard can then be removed by pulling it up from the left side.

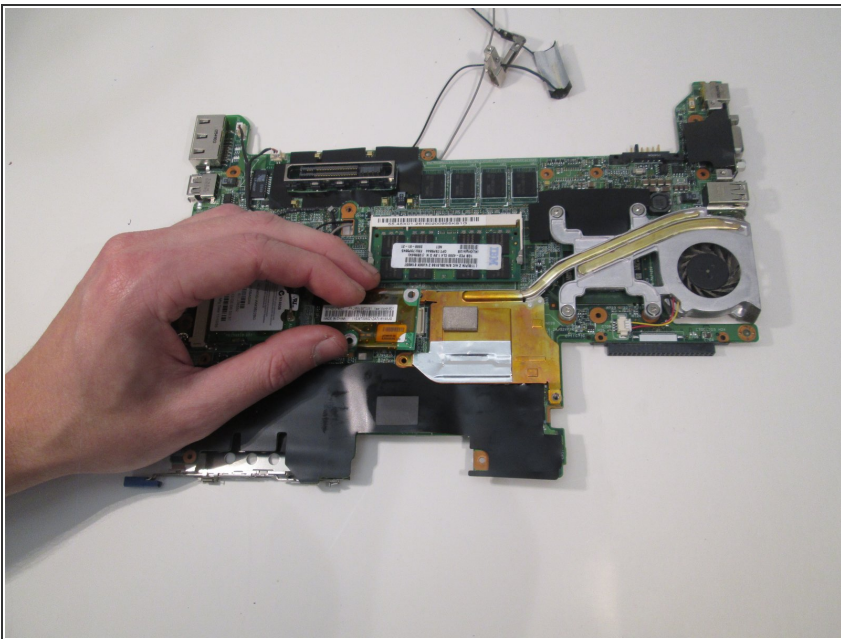


## Step 22



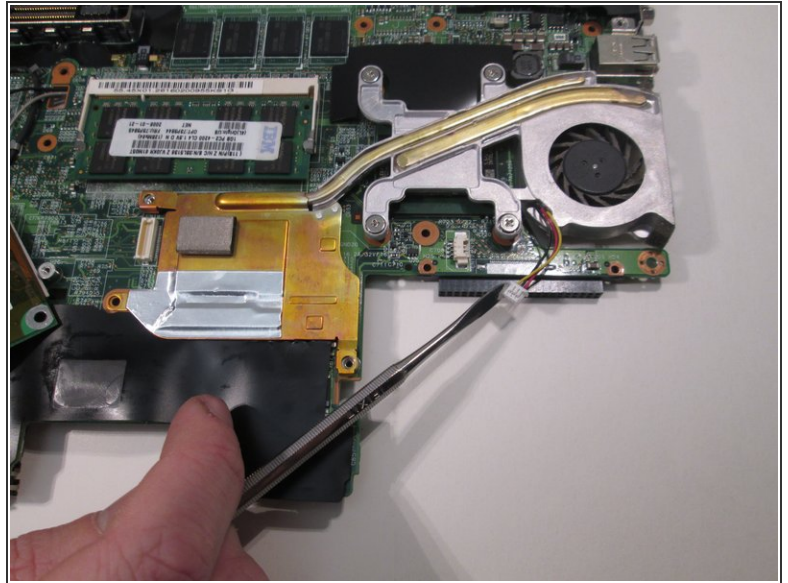
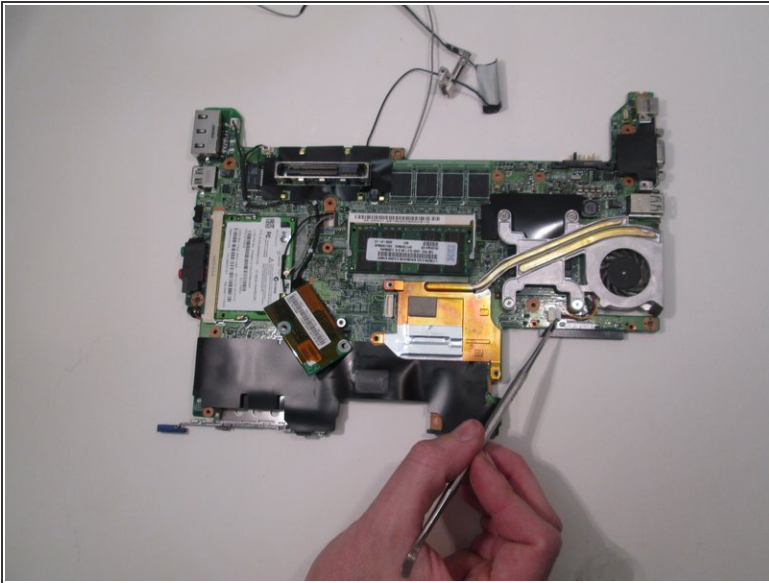
- Flip the motherboard over.
- Remove the indicated 5mm and 4mm screws with a phillips head screwdriver.

## Step 23



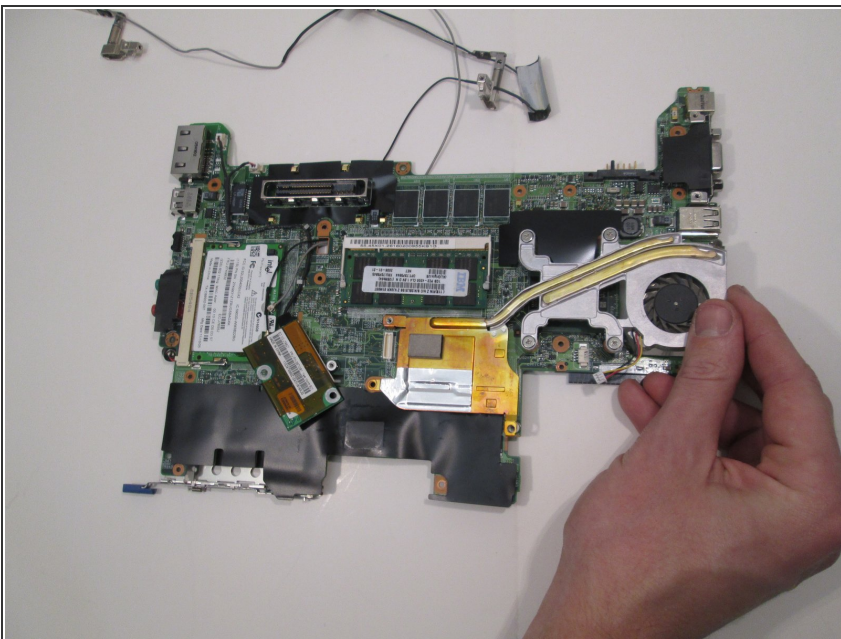
- Pull the chip attached to the top of the heat sink and move it to the left.

## Step 24



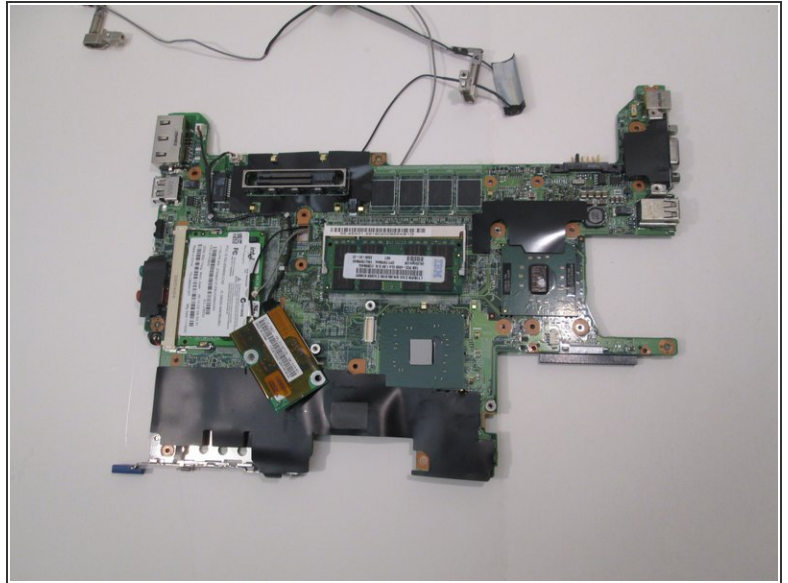
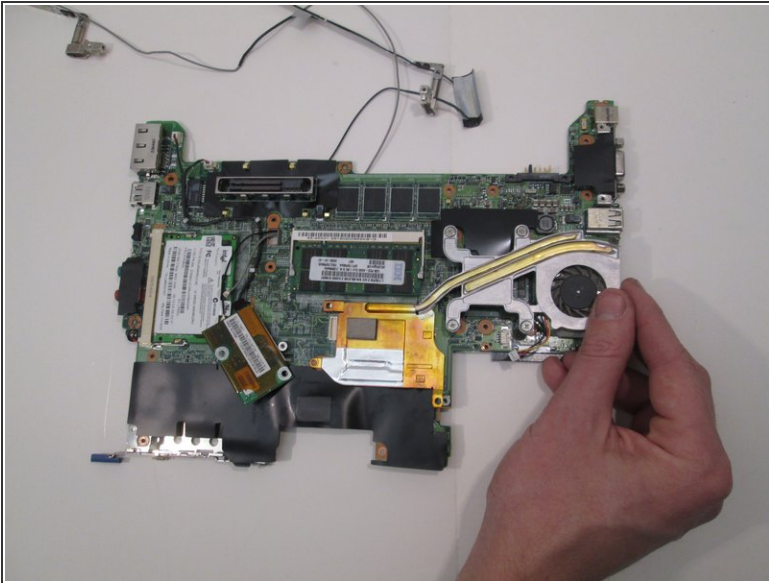
- Remove the white tab below the fan by pulling it to the right.

## Step 25



- Holding the fan move the whole assembly to the left past the notch holding it in.

## Step 26



- The assembly is no longer attached and can be removed by pulling it out.

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