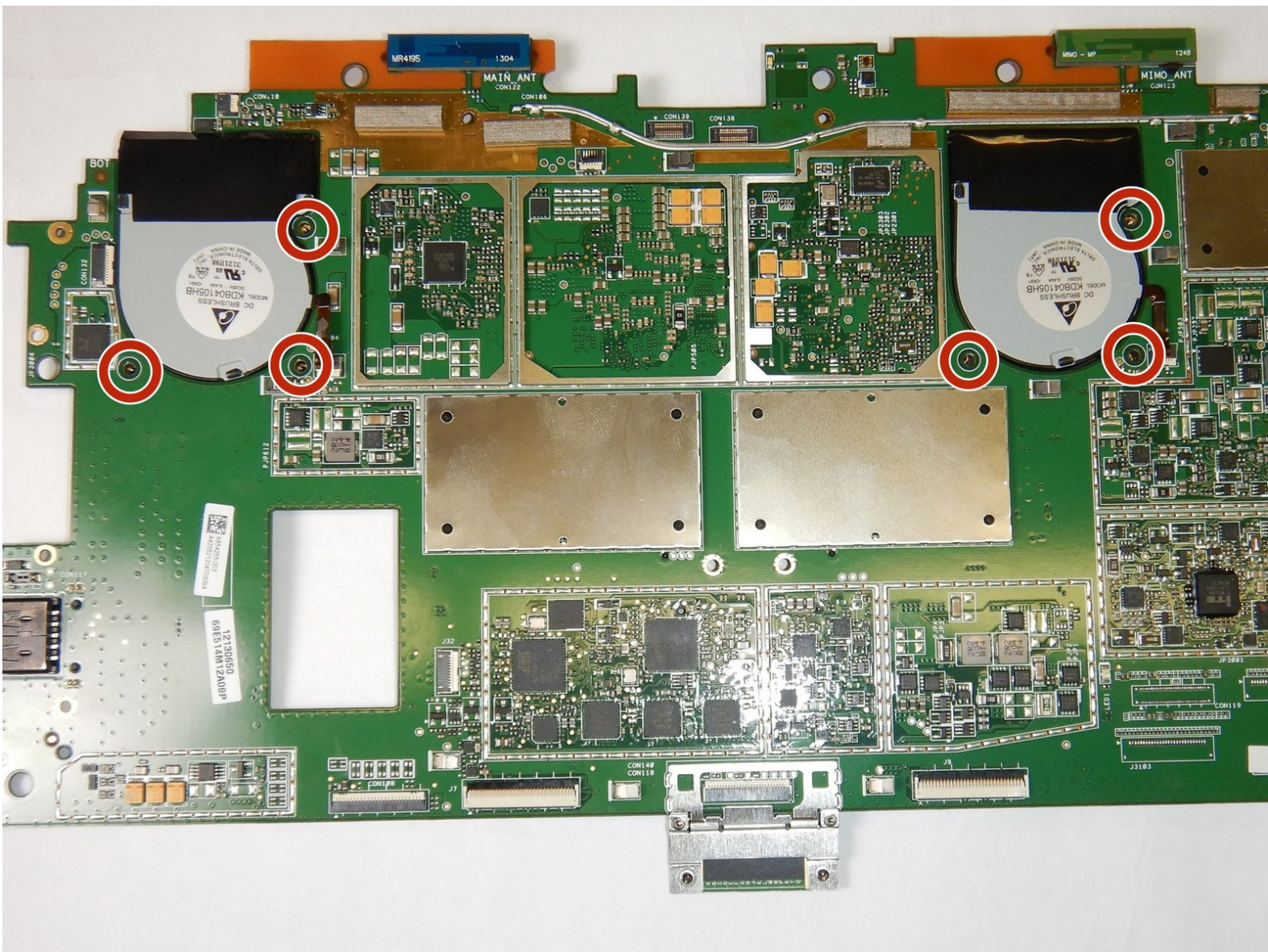




# Microsoft Surface Pro 2 Fan Replacement

If your Microsoft Surface Pro 2 is overheating or making loud grinding noises while operating, you may need to replace the fans to prevent further damage.

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## TOOLS:

- [iFixit Opening Tools](#) (1)
  - [iFixit Opening Picks set of 6](#) (1)
  - [Suction Handle](#) (1)
  - [Heat Gun](#) (1)
  - [Spudger](#) (1)
  - [T3 Torx Screwdriver](#) (1)
  - [T4 Torx Screwdriver](#) (1)
  - [T5 Torx Screwdriver](#) (1)
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## Step 1 — LCD Display



 To avoid electrical shocks, unplug and turn off your Surface Pro 2 before proceeding.

## Step 2



-  Avoid any skin or eye contact with the heating pad or heating gun because they may cause bodily harm.
- Using a heating pad or heating gun, heat the edges of the screen to soften the glue. This area extends roughly one inch from the edge of the device.
-  The glue is under the darker border of the device display.

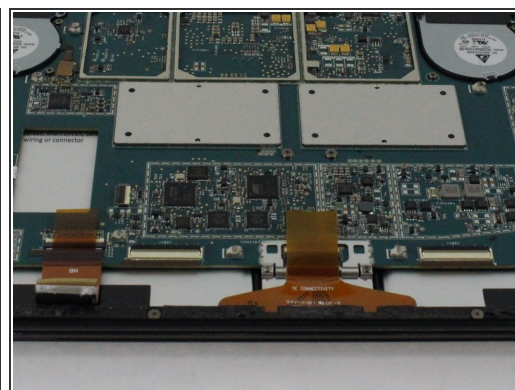
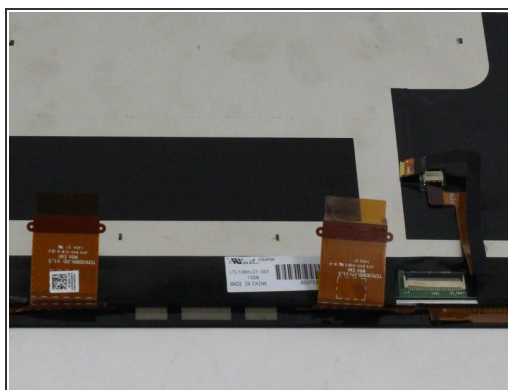


### Step 3



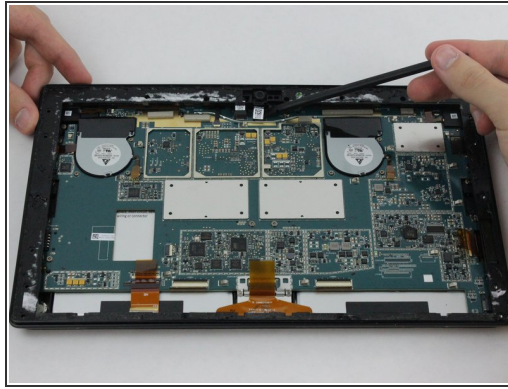
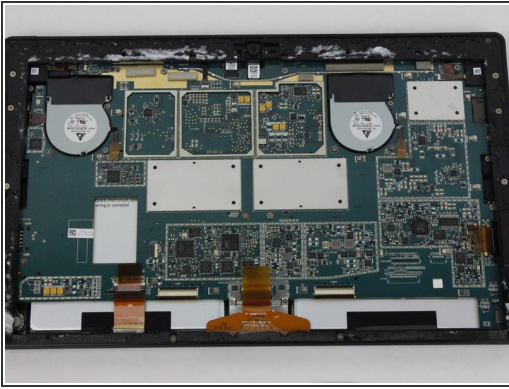
- Using a plastic opening tool and a suction cup as needed for leverage, gently insert one edge of the opening tool under the corner of the screen.
- ❗ If the tool does not easily slide under the screen, return to heating before proceeding.
- Slowly work the tool around the entire edge of the screen.

### Step 4



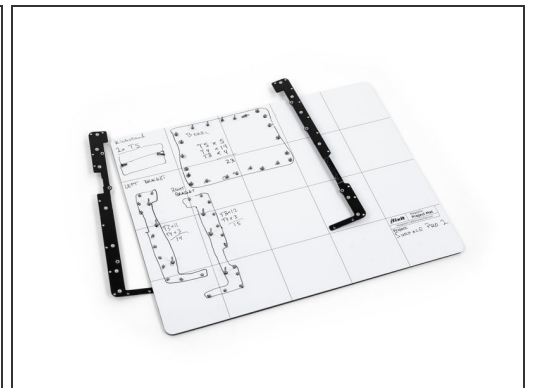
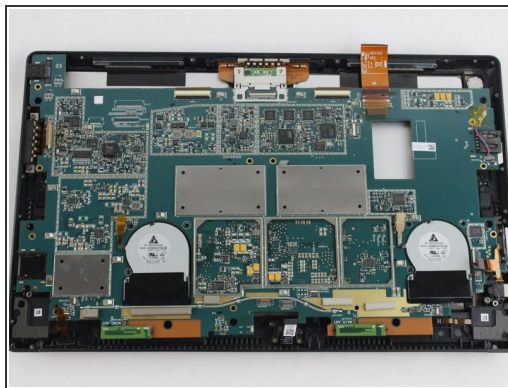
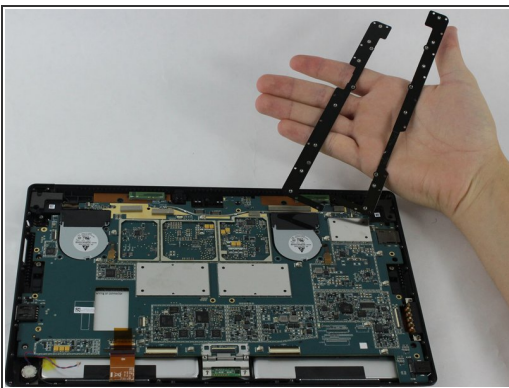
- Detach the orange cables that connect the screen to the motherboard by pulling on the small tabs. Using the nylon spudger, release these cables.
- ❗ Please note the third small connector in red.
- Allow the glue to cool before letting it come into contact with any other surface.

## Step 5 — Motherboard



- Make sure that the front-facing camera is completely disconnected, and then remove the plastic bracket.
  - Remove the 22 screws on the bezel.
  - Remove the left and right brackets; the left has 16 screws and the right has 15 screws.
- ★ The three different torx screws used are T3, T4, and T5.

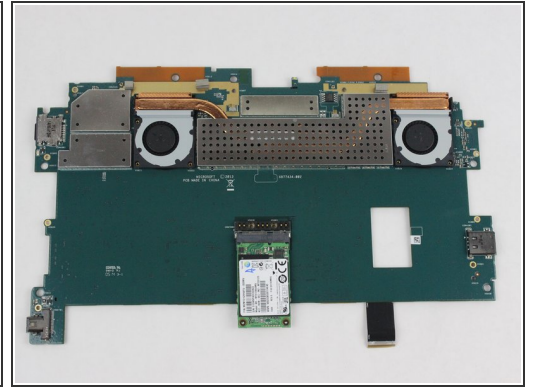
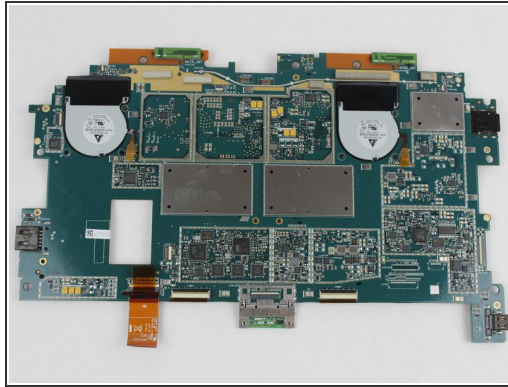
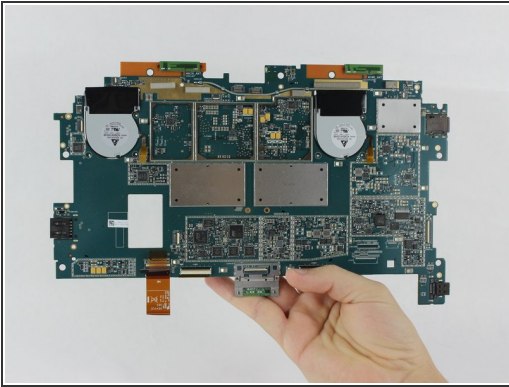
## Step 6





- Once the brackets are removed, set them aside.
- ⓘ The motherboard itself also has screws.
- Remove the 25 screws of varying sizes that attach the motherboard to the back plate.
- ⓘ View the attached photo of a screw diagram to help keep track of your screws.



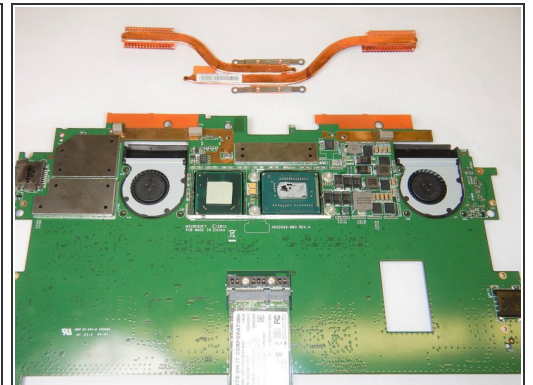
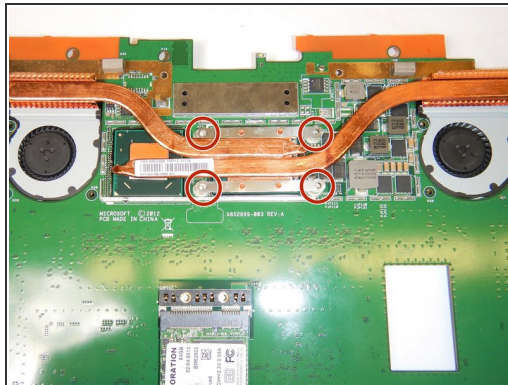
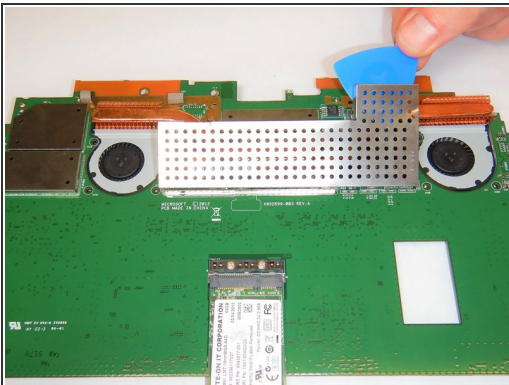
## Step 7



 You have now completely removed the motherboard, and it should look like the pictures shown.


 Be sure to be cautious with all the connections with the cables on the motherboard.

## Step 8 — Heat Sinks

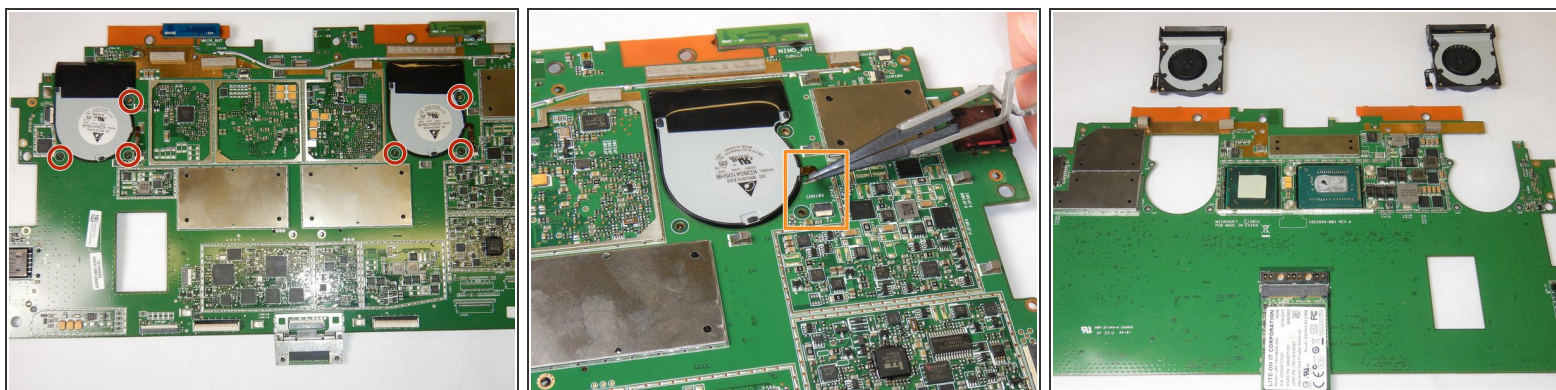


 Be sure to use gloves or tools because metal is sharp along the edge.

- On the underside of the motherboard locate the heat shield which is located between the two fans near the top of the motherboard.
- Remove the heat shield using an opening pick by lifting along the edges.
- Remove all four Torx T5 screws located in each corner of the heat sink mounting frame.
- Carefully lift off the heat sinks from the motherboard.

 During reinstallation of the heat sinks, be sure to clean both contact surfaces with isopropyl alcohol and [reapply thermal paste](#).

## Step 9 — Fan



- On the top side of the motherboard, remove the three Torx T5 screws that secure each of the two fans to the motherboard.
- Remove the ribbon cables that connect the fans to the motherboard from their clamps.
- ⓘ The ribbon cables are fragile and are prone to damage if too much force is used.
- Remove the fans through the underside of the motherboard.

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