

# Microsoft Surface Pro 5 Camera Tie Bar Replacement

The camera tie bar mounts the front and rear...

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# INTRODUCTION

The camera tie bar mounts the front and rear cameras as well as providing additional mounting support for the right and left speakers. It also connects to the motherboard via a small ribbon cable.

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## TOOLS:

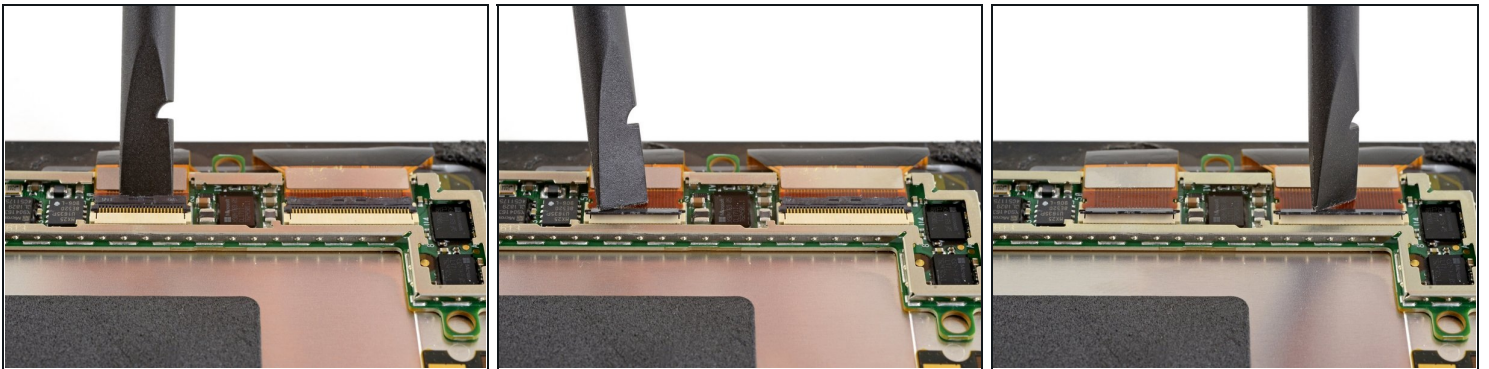
[Tesa 61395 Double-Sided Tape](#) (1)  
[Microfiber Cleaning Cloths](#) (1)  
[Isopropyl Alcohol](#) (1)  
[iOpener](#) (1)  
[iFixit Opening Picks \(Set of 6\)](#) (1)  
[iFixit Opening Tool](#) (1)  
[T4 Torx Screwdriver](#) (1)  
[Spudger](#) (1)  
[T5 Torx Screwdriver](#) (1)  
[Tweezers](#) (1)  
[Suction Handle](#) (1)  
[Heat Gun](#) (1)

## PARTS:

[Surface Pro 5/6 Adhesive Strips](#) (1)

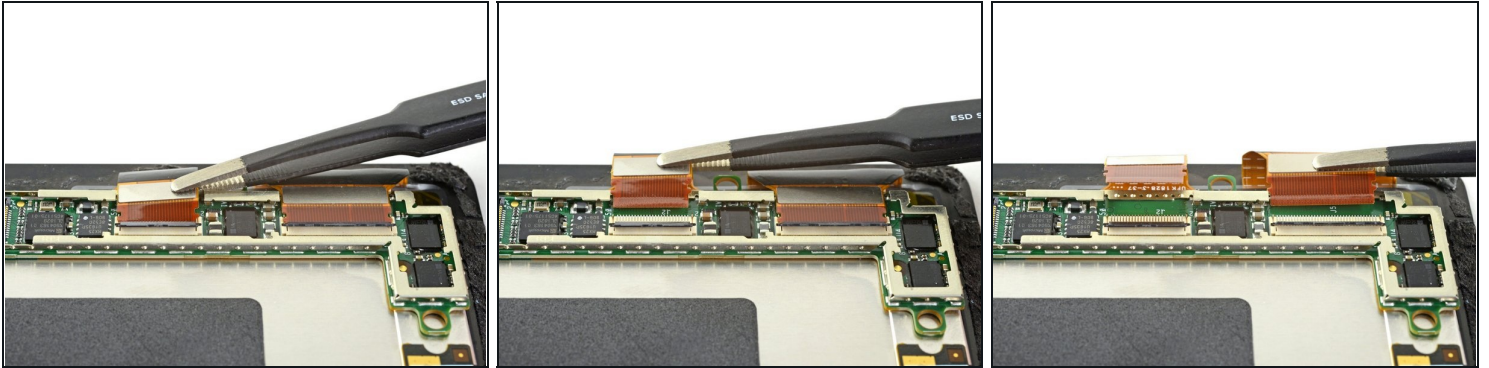
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## Step 1 — Disconnect the display board



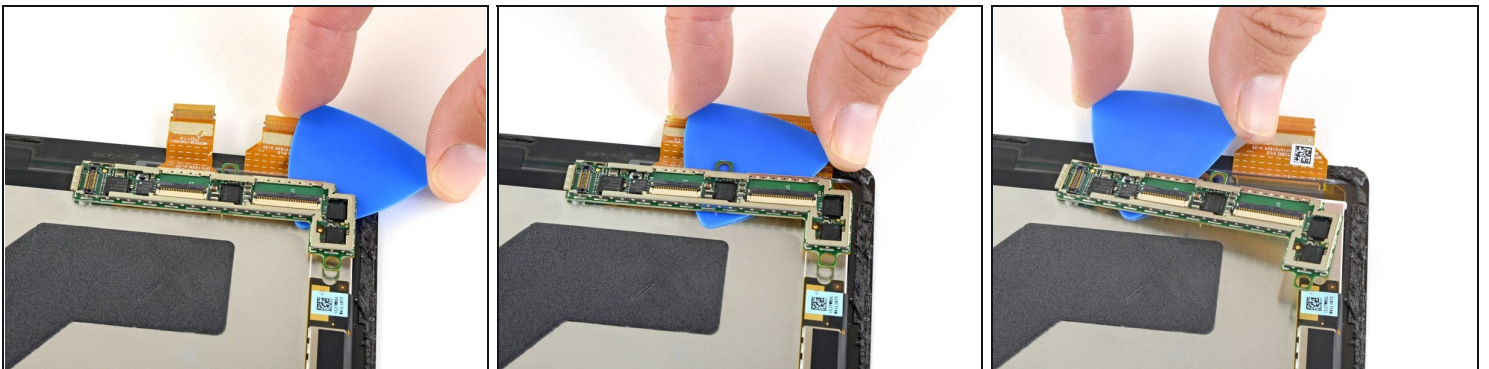
- Use a spudger to flip up the small locking flaps on the display cable ZIF connectors.

## Step 2



- Use tweezers to slide the display cables straight out of their sockets on the display board.

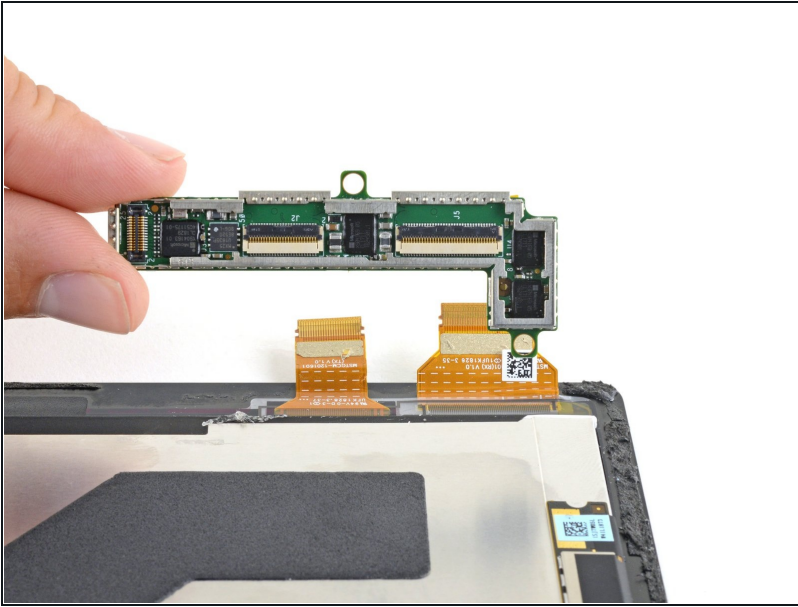
## Step 3 — Remove the display board



- Slide an opening pick under the display board to separate the adhesive holding it onto the back of the screen.



## Step 4



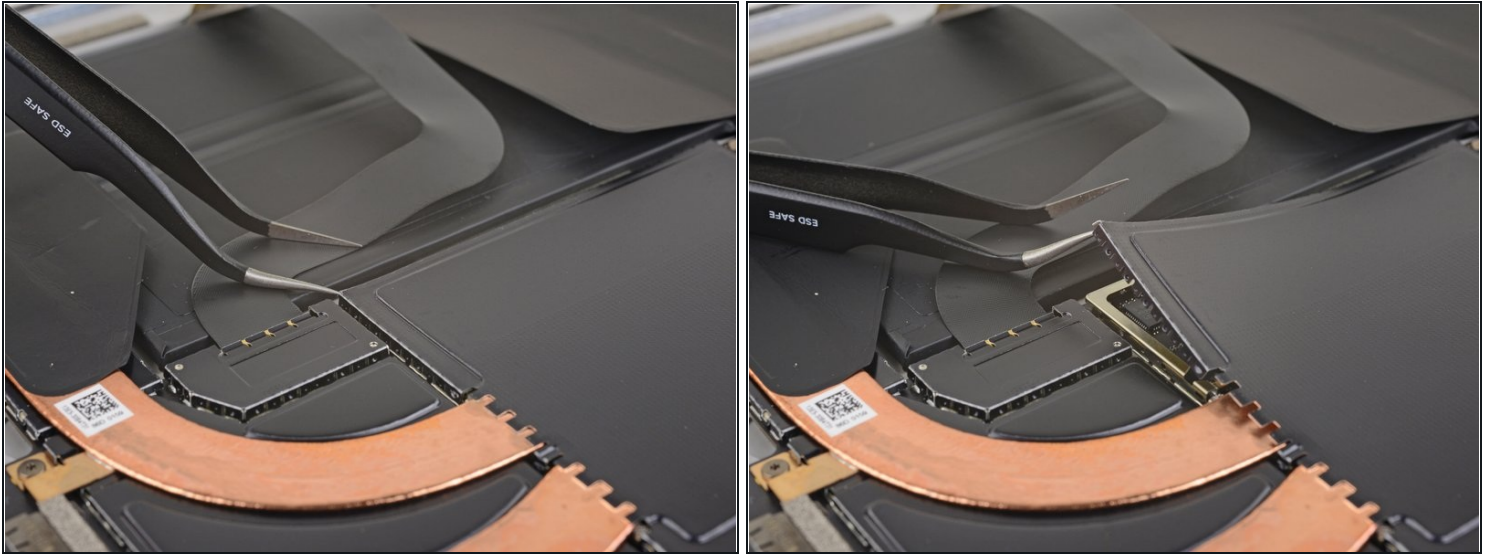
- Remove the display board.
- ★ During reassembly, use a strong double-sided tape or a [precut adhesive card](#) to secure the display board. Clean off the old adhesive before applying new adhesive.
- To ensure correct positioning, plug in both display connectors before adhering the board to the display.

## Step 5



- Only the screen remains.

## Step 6 — Remove the heat sink shield

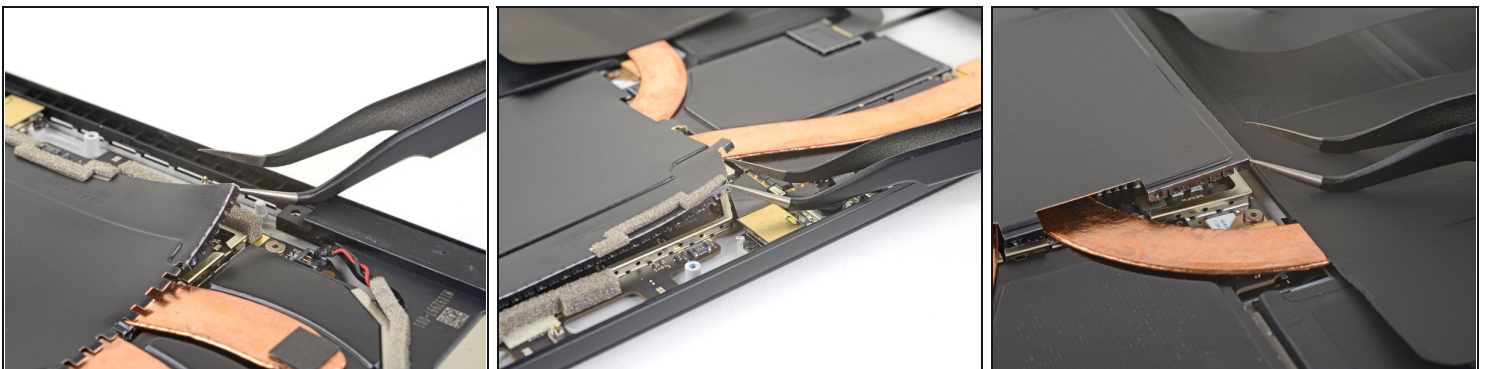


- Insert one point of a pair of pointed tweezers into a gap in the corner of the EMI shield covering the heat sink.
- Use the tweezers to pry the EMI shield away from the motherboard as much as you can without bending it. Do not remove it yet.

⚠ Try not to deform the shield too much—you will need to reinstall it during reassembly.

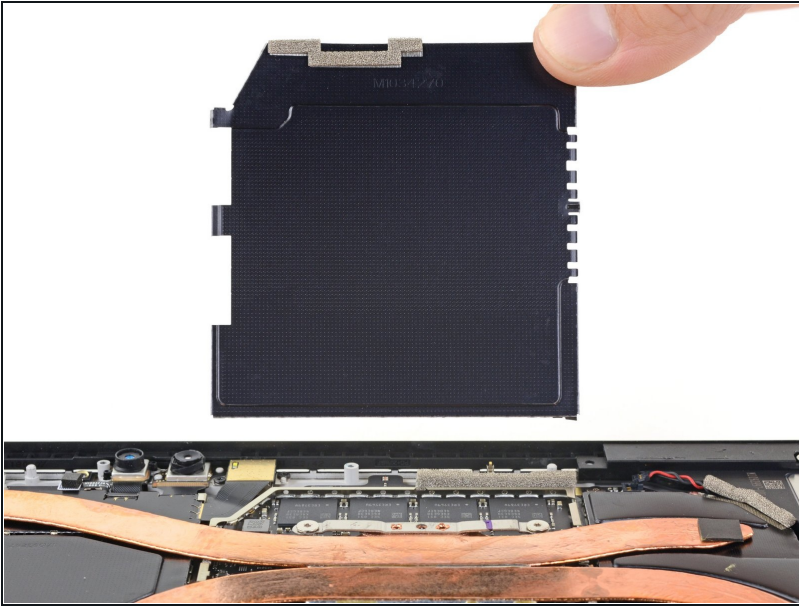
⚠ Take care not to puncture the battery with the tweezers while working on this shield.

## Step 7



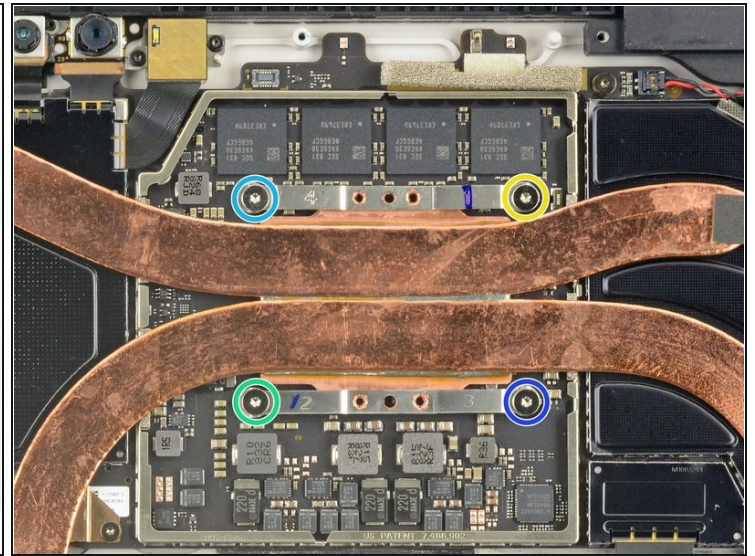
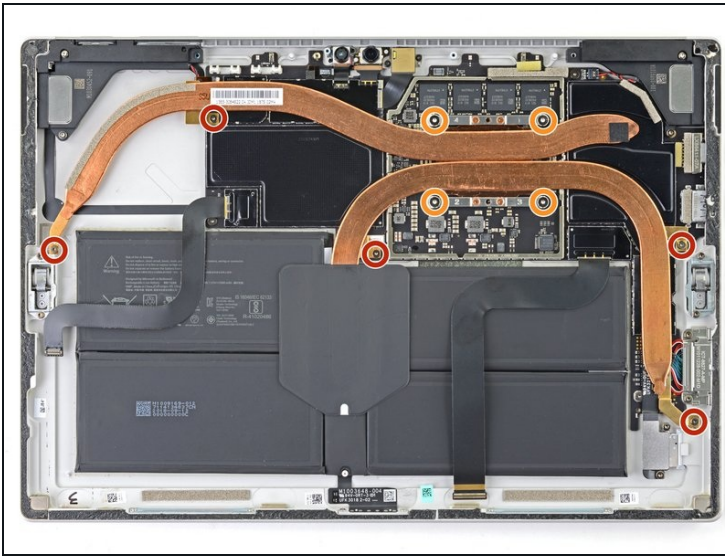
- Repeat the last step for each corner of the EMI shield covering the heat sink.

## Step 8



- Remove the heat sink shield.

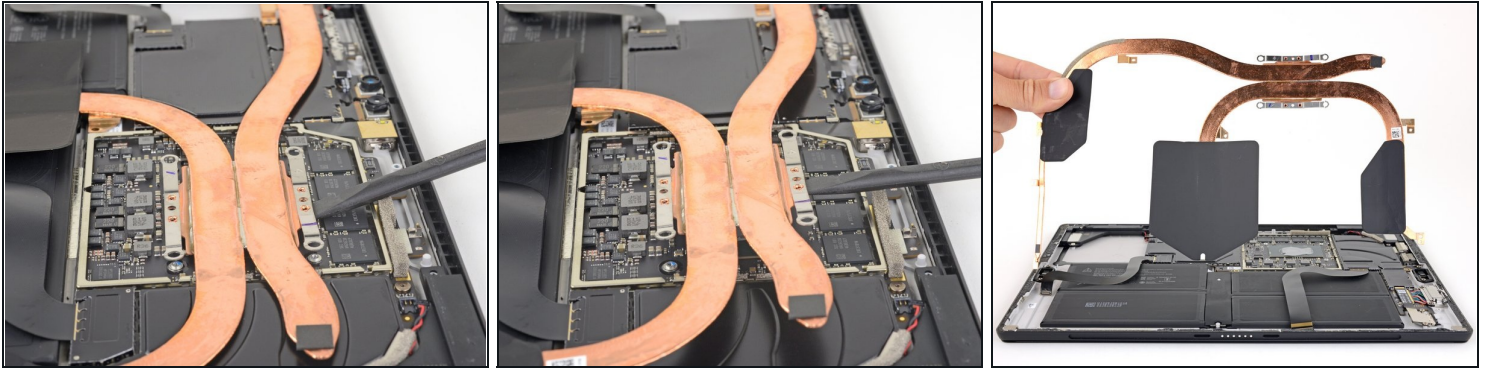
## Step 9 — Remove the heat sink



- Remove the ten Torx screws securing the heat sink:
  - Five 2.6 mm-long T3 screws
  - Four 3.3 mm-long T5 screws
- ☑ During reassembly, tighten the heat sink screws in the following criss-cross pattern, one turn at a time, until they're tight:
  - Screw 1
  - Screw 2
  - Screw 3
  - Screw 4

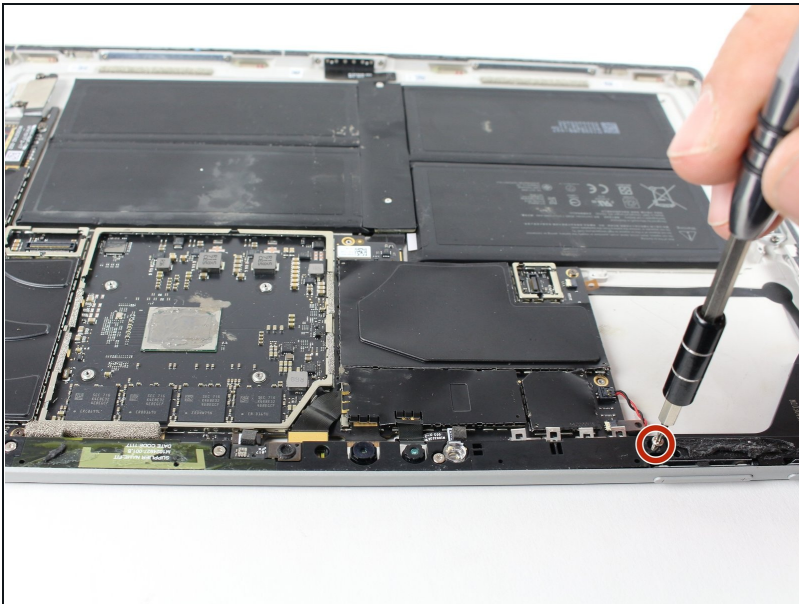


## Step 10



- Use the flat end of a spudger to gently pry the heat sink straight up and off of the CPU.  
⚠ Take care not to dent or crease the heat sink pipes during removal.
- ☑ During reassembly, make sure to [properly clean the heat sink and CPU, and apply new thermal paste.](#)

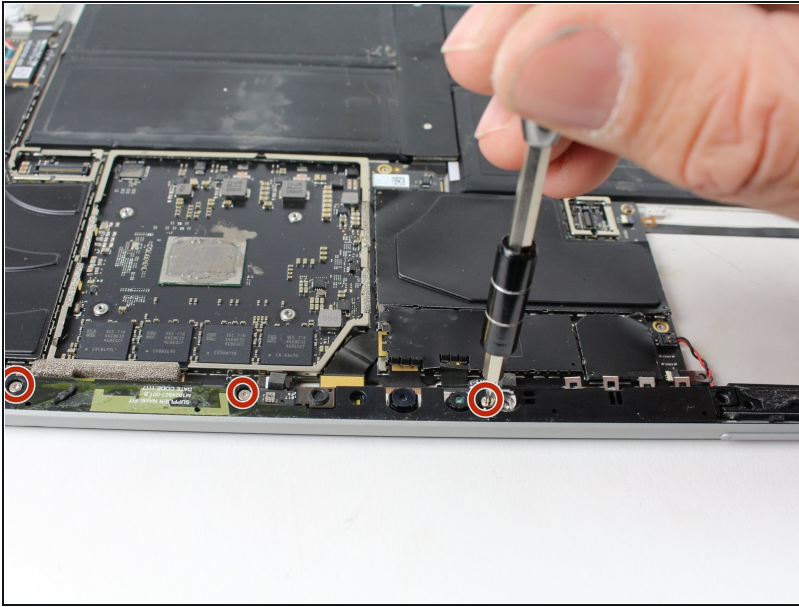
## Step 11 — Camera Tie Bar



- Remove the Torx T5 x 6mm screw connecting the black tie bar to the power button/volume control/speaker assembly.

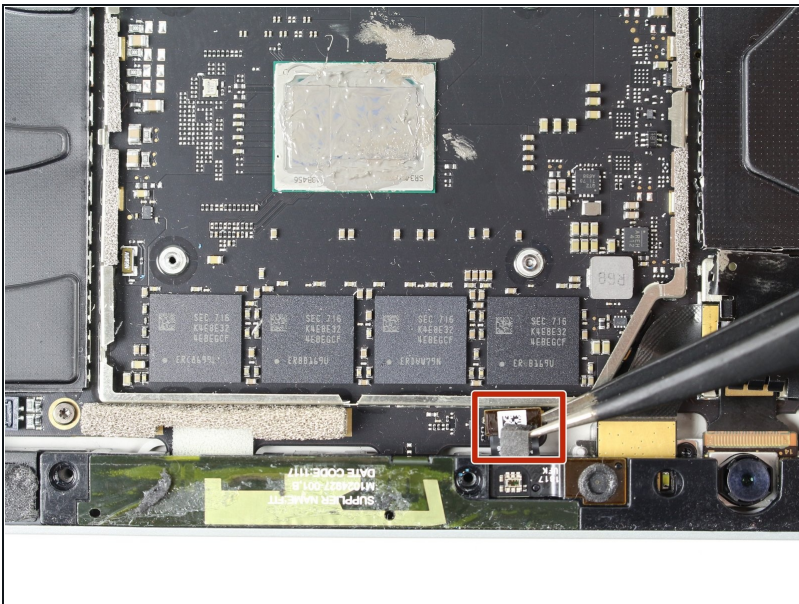


## Step 12



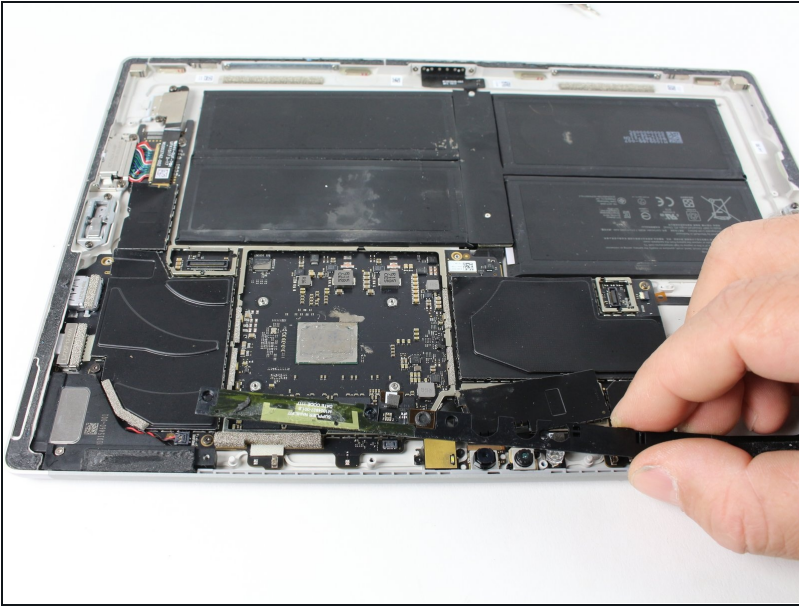
- Remove the remaining three Torx T5 x 4.5mm screws holding down the camera tie bar.

## Step 13



- Disconnect the small ribbon cable connecting the camera tie bar to the motherboard by pulling up with tweezers.

## Step 14



- Lift the camera tie bar off of the device.

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