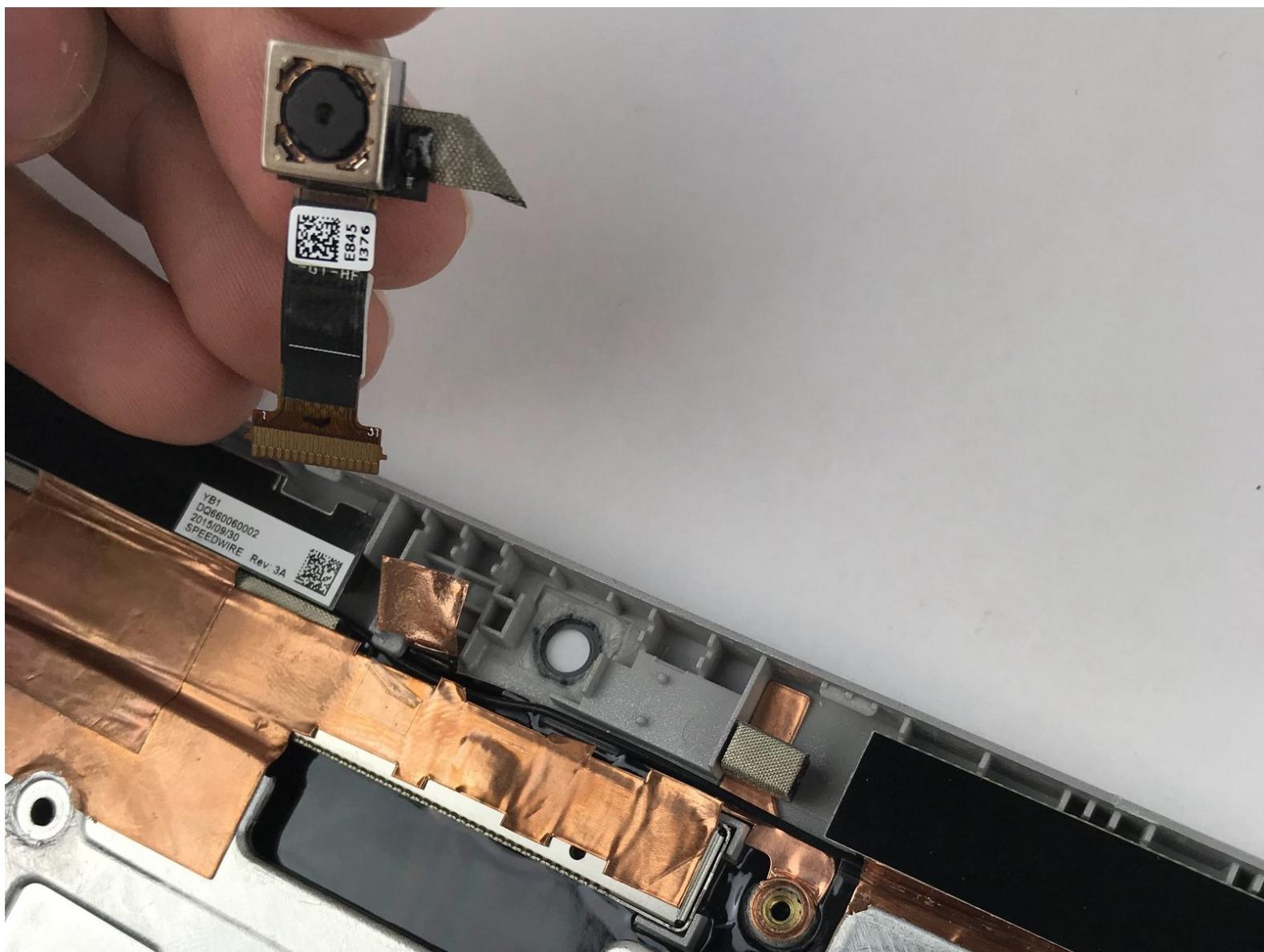




# HP Spectre x2 12-a002dx Back Camera Replacement

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## INTRODUCTION

Cameras on devices can sometimes get damaged. This guide shows how to replace the back camera on this device

### TOOLS:

- [Phillips #000 Screwdriver](#) (1)
- [Spudger](#) (1)
- [iFixit Opening Tools](#) (1)
- [Heat Gun](#) (1)
- [Tweezers](#) (1)
- [Phillips #00 Screwdriver](#) (1)

## Step 1 — Screen



- Make sure the device is powered off and the kick stand is retracted.
- The HP Spectre should be placed on a flat surface with the keyboard detached.

## Step 2



- To remove the screen, there is an entire system of clips which need to be undone as well as 4 Phillips M1.5x2.7 screws.
- The screws should be removed using a Phillips #000 screwdriver. There is a sticker where the laptop attaches to the keyboard.
- Heat the sticker (if needed) and use fine point tweezers to grip the sticker and remove it.

## Step 3



- Use the plastic opening tools or insert a spudger to begin unclipping the system.
- Pry the screen off once all the clips have been unclipped.

! The screen may shatter if not already shattered (beware of flying glass).

## Step 4



- This screen will break. there are double tape underneath the frame, that is not listed in here.

## Step 5



- Remove the connecting cable of the screen and battery. Use a spudger to reveal the adhesive strip and carefully peel it off.
- Insert a spudger to the other end and release the ZIF connectors. Detach the cable.

*(i)* While a metal spudger is pictured, use a black nylon spudger instead because it is ESD safe.

## Step 6 — Back Camera



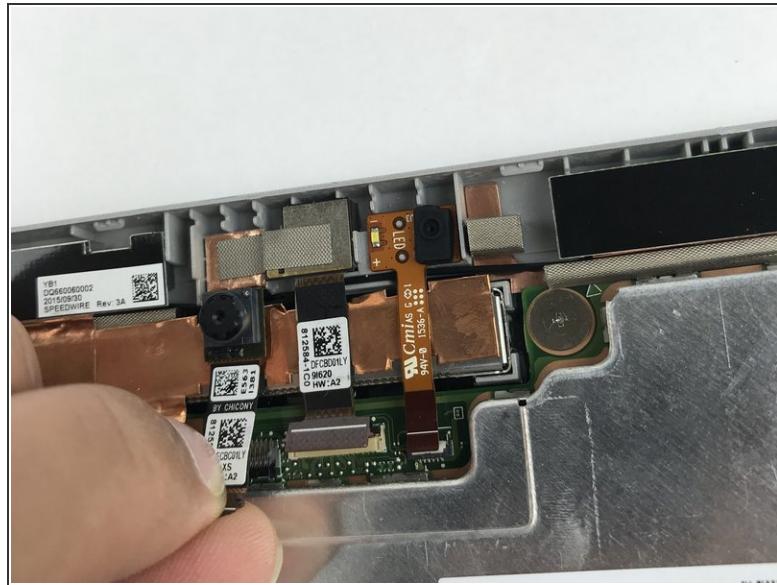
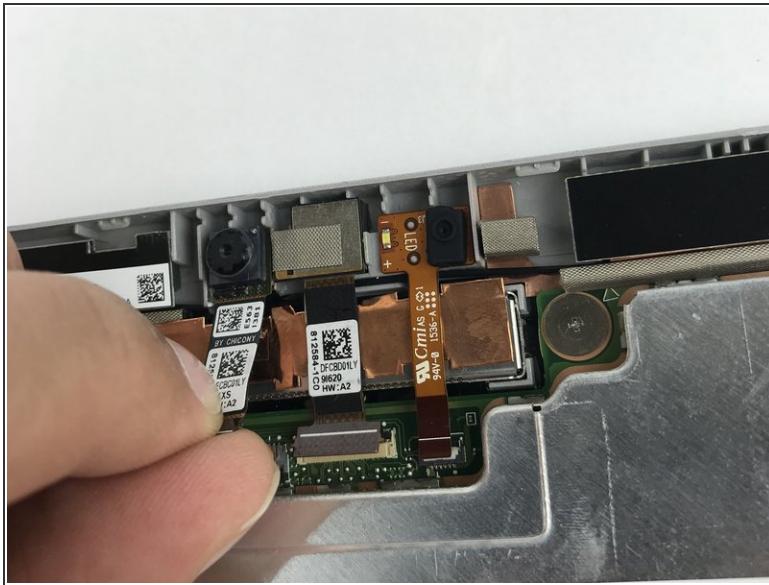
- The HP Spectre X2 Has three Cameras: A front facing webcam (blue arrow), a rear Facing webcam (orange arrow), and a 3d camera (red box). The 3d camera is covered by tape that connects to the heat sink.

## Step 7



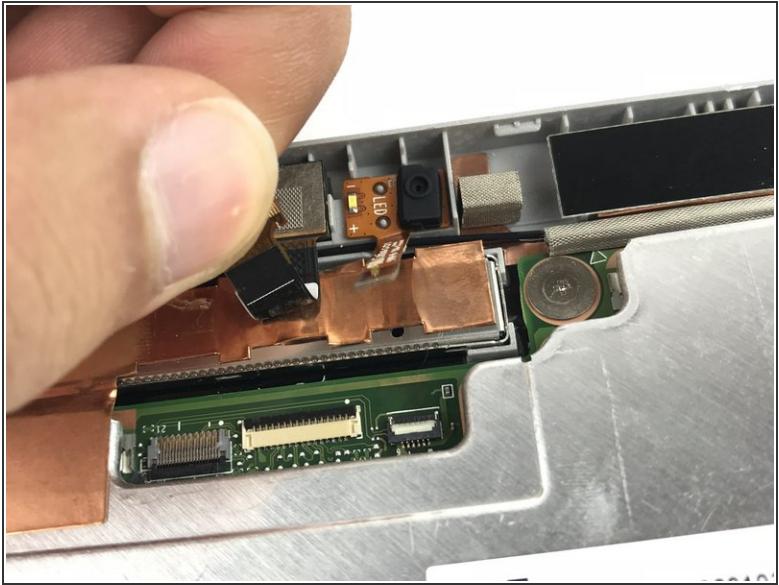
- Begin by removing the ribbon that connects the front facing webcam to the motherboard. You can use a black nylon spudger as pictured to do this.

## Step 8



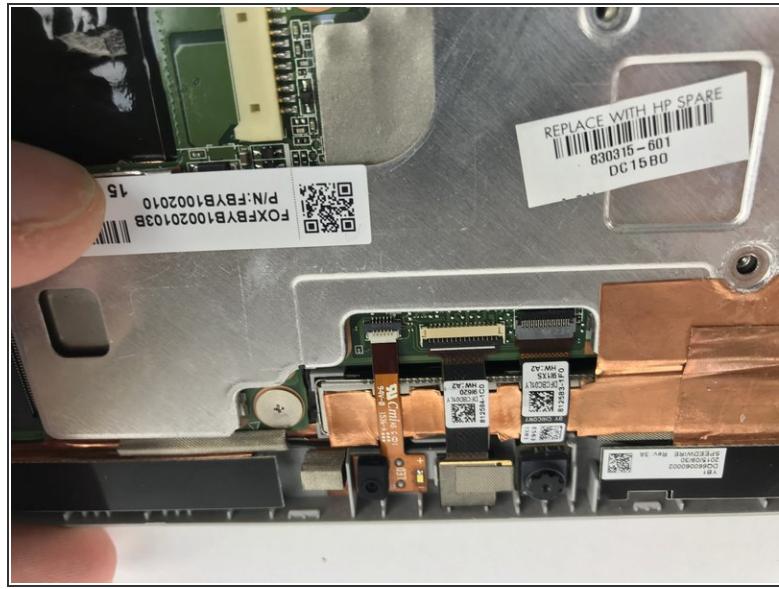
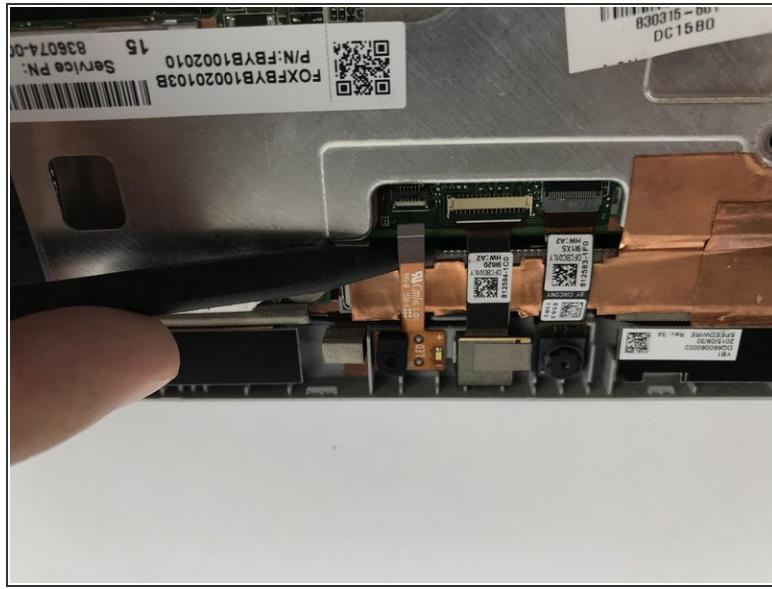
- (i)* The Front facing webcam is secured to the HP spectre by the laptop frame and adhesive on the ribbon cable connecting the camera to the motherboard.
- To remove the camera, peel back the ribbon cable and then slide the camera down and out of the laptop frame,

## Step 9



- The rear facing webcam is secured in the same manner as the front.
- Remove the ribbon connecting the camera to the motherboard, and slide the camera down and out of the laptop frame.

## Step 10



*(i)* Next to the webcam is the Led light.

- To replace the LED camera light, disconnect the ribbon cable from the motherboard. The LED light should slide freely out of the assembly.

*(i)* The black nylon spudger may be used here again.

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