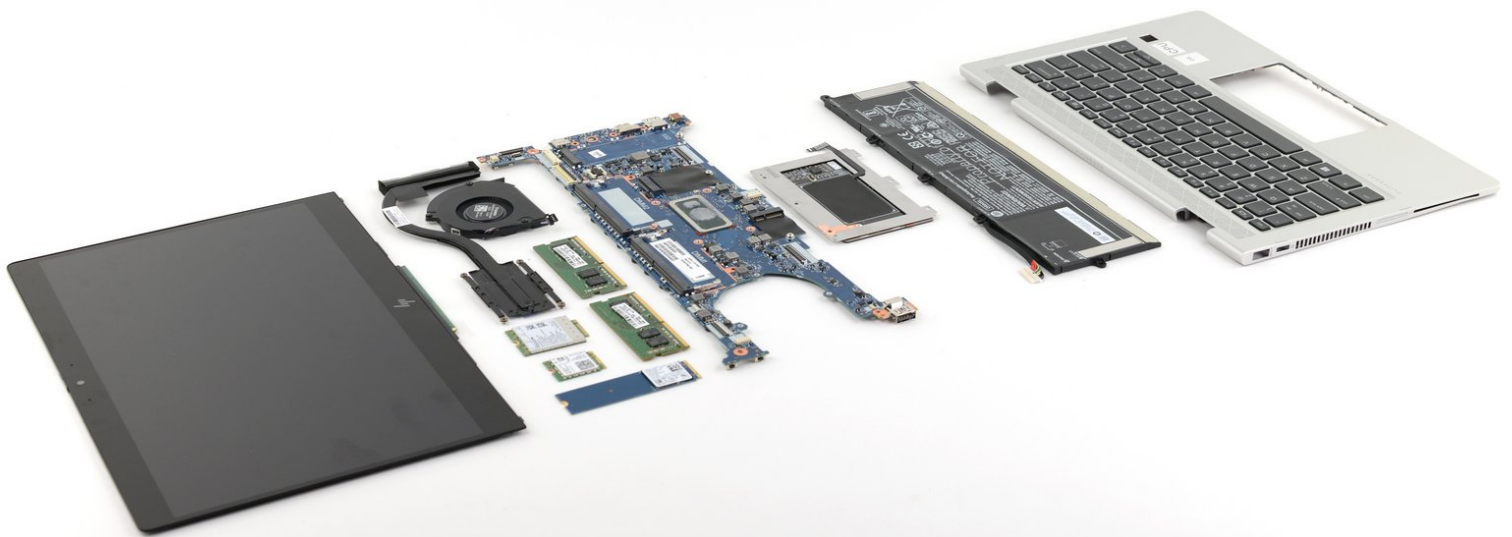




# HP EliteBook 830 x360 G6 Repairability Assessment

Repairability assessment of the HP EliteBook 830 x360 G6.

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## Step 1 — HP EliteBook 830 x360 G6 Repairability Assessment



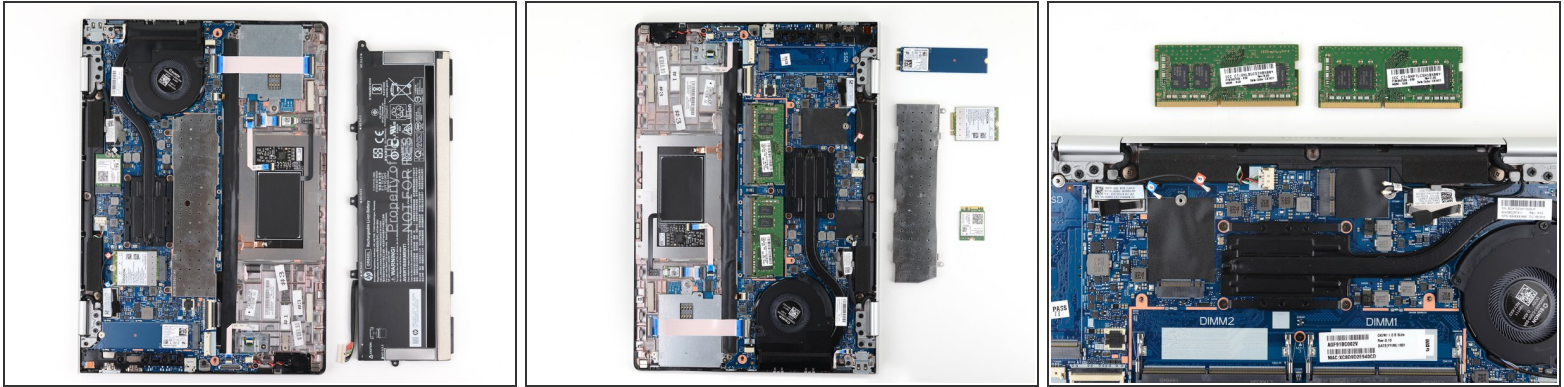
- Exterior reference photos.
- The laptop isn't ingress-proofed, so many gaps in the keyboard and lower case—including ports, vents, speaker grilles, etc.—may allow water damage or particle buildup.

## Step 2



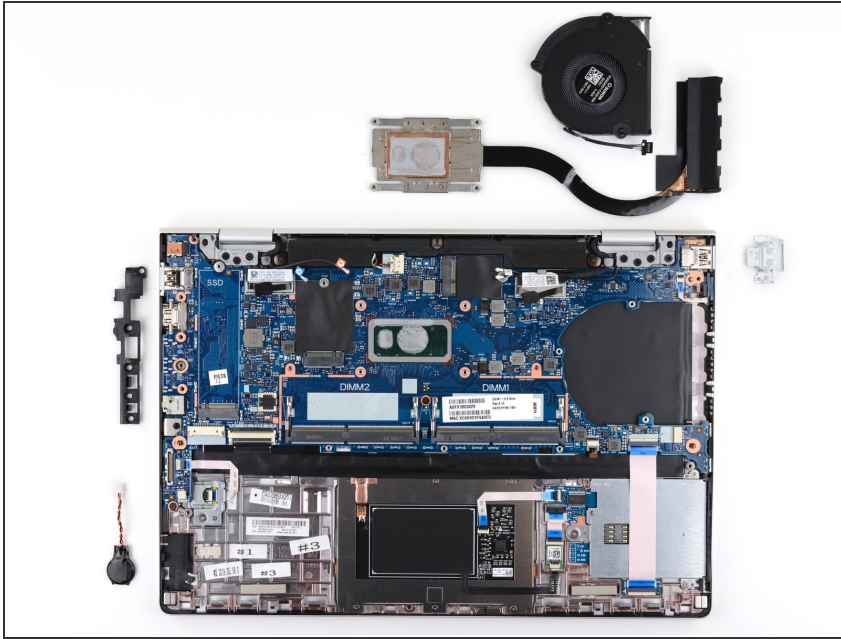
- The lower case is secured by a few captive Torx screws. Torx isn't as common as Phillips, but should better withstand repeated removal. Captive screws will also be hard to lose.
- The case is fairly well secured and requires a thin plastic prying tool to gain access; fingernails won't be strong enough and metal tools will likely scratch the laptop surface.
- The bottom case contains no major components, making for easy replacement, and the laptop itself has a flat construction that allows access to most components at this stage.

## Step 3



- The battery is immediately accessible after removing a few standard screws. No adhesive holds it down.
- ❗ A laptop battery is consumable—even if it's kept in mint condition, the battery will wear down and need replacing. An easily accessible battery is very important for the life of the device, as well as its end-of-life recycling.
- The wireless cards and SSD are immediately removable, secured only by Phillips screws.
  - The modularity of these items is a great point in favor of repairability and device longevity, as well as user privacy with regards to the SSD.
- The RAM is still covered by an unlabeled EMI shield, but only a few screws and clips secure it, making it trivial to remove.

## Step 4



- The heat sink and fan are modular. They're immediately and easily removed by loosening captive Phillips screws. Access to these components is desirable for maintenance and cleaning.
- The BIOS/CMOS battery is also immediately accessible. While these batteries are very low power and often last a long time, they will eventually need replacing, so easy access is appreciated.
- Also immediately accessible are a couple non-essential port cover/stabilizers.
  - The ports are unfortunately soldered to the mainboard, meaning that failure will be costly to repair. Brackets to support the ports are a welcome reinforcement—hopefully postponing an expensive repair, if not preventing it entirely.

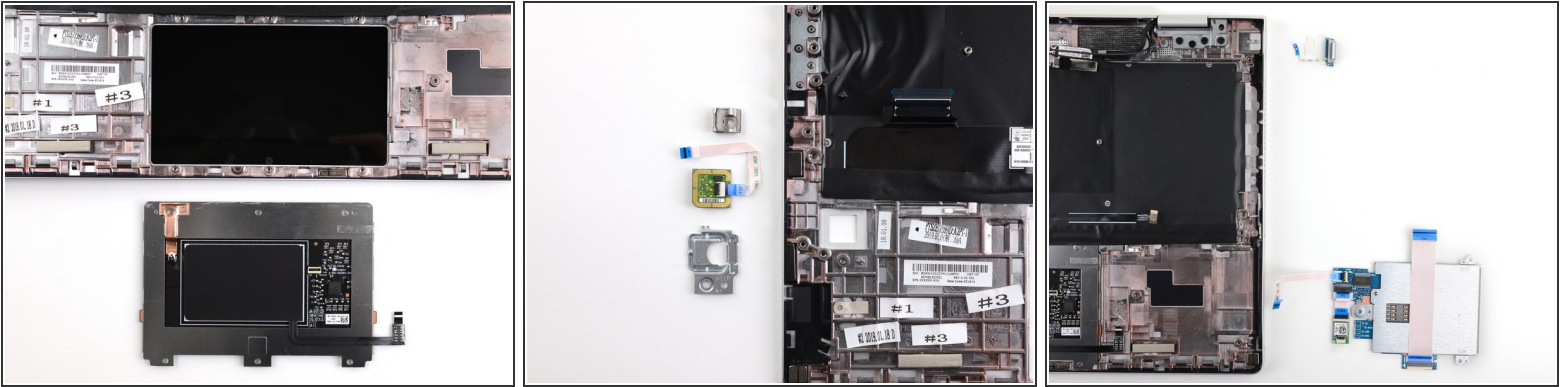


## Step 5



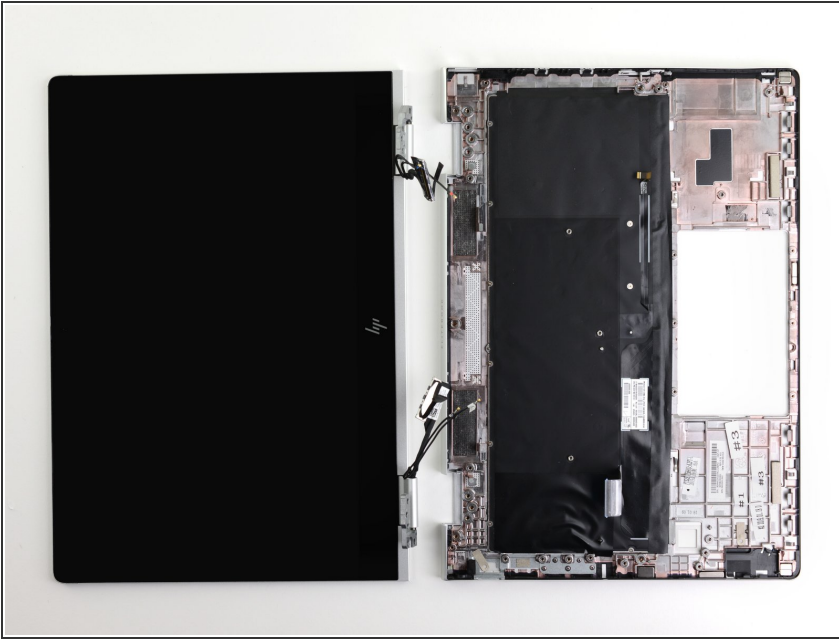
- The motherboard is removable after the heat sink assembly, and after some (mostly labeled) connectors are disconnected. The motherboard contains the CPU, volume buttons, and ports.
- High-wear components like ports and buttons make for a very expensive replacement when they're soldered to the motherboard.
- The placeholder SIM tray comes out without a fuss in this version. Prior editions required complicated motherboard removal, so this is a nice change.
- The speaker can be removed at the same time as the motherboard, but it's slightly easier with the motherboard removed. Its modularity and simple cable layout is appreciated.

## Step 6



- With the battery removed, the following components are accessible:
  - The trackpad assembly, which is secured with standard screws and no glue.
  - The fingerprint sensor and its interconnect cable.
    - The lock bracket can be removed after the motherboard.
  - The peripheral port with an interconnect cable adhered to it.
- The power button is not easy to pry out of its recess even with the motherboard removed, and could likely be removed earlier. The modularity of this button is appreciated considering the number of components soldered on the main board.

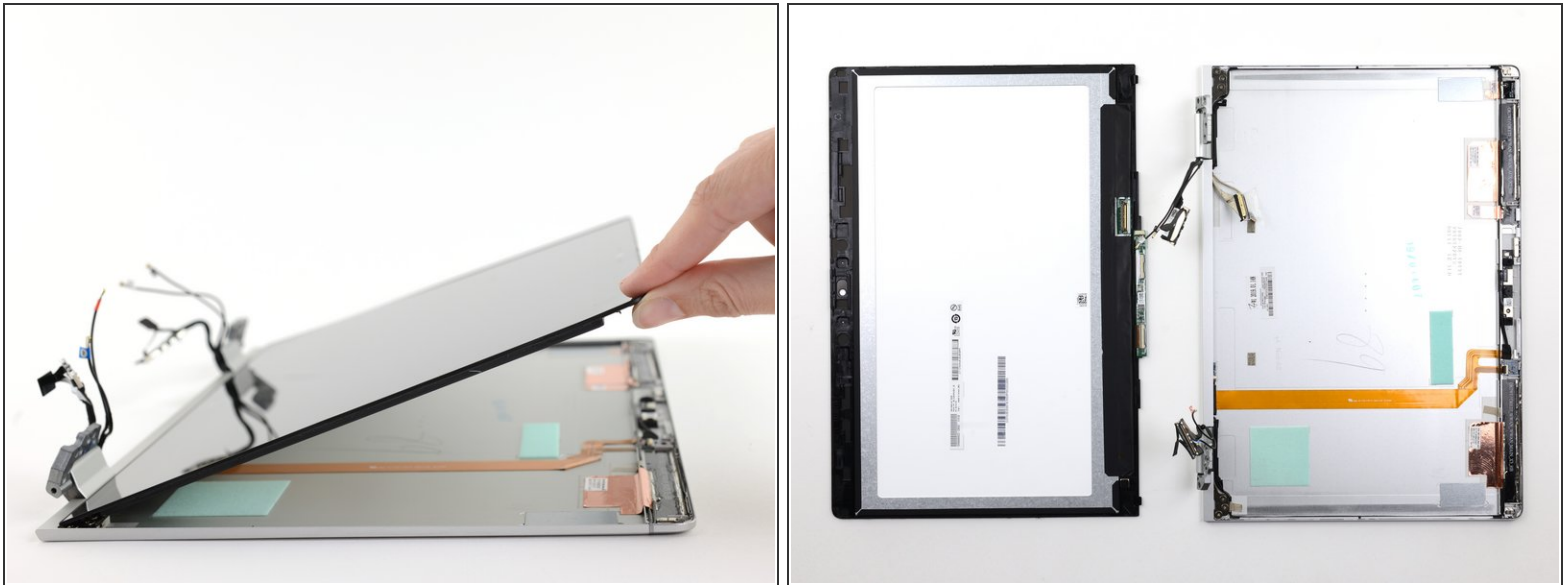
## Step 7



- The display is actually removable upon opening the bottom case, which is great for repairability.
- That said, the cables are tough to wrangle, making hinge removal a little tricky.
- The keyboard assembly can be removed intact after some large stickers and a few dozen screws are removed.
- This procedure is not ideal, but not terrible—lengthy, but not especially challenging. Presumably the stickers provide EMI shielding and should be reinstalled, but doing so without damage will be a challenge. Removing and replacing the many small screws will also be a marathon.



## Step 8



- The webcam slider provides a fairly safe access point. The thin adhesive is easy to slice through, and the lack of breakable plastic clips makes removal and reassembly much easier.
- The display must be opened from the top so that the bottom end can slide out. Starting from the base will likely break clips and maybe a board.
- The plastic bezel did not separate in display removal this time around, making the repair easier. If the bezel needs to be transferred to a new part, it may be damaged in the process.
- The display is quite easy to disconnect, and no cables or components are in danger during the prying procedure.
- The display houses no additional components, allowing for quicker replacement.
- Remaining in the display case are the upper sensor assembly and several antennas secured by copper tape, which may be a challenge to remove and replace intact.

## Step 9



- The labeled hinges with labeled plastic cable securers are the final items to be removed.
- Ideally the aforementioned antennas won't fail, but their cables run through the hinges, which stresses them over time. The copper tape will complicate replacement.

## Step 10



### REPAIRABILITY SCORE:



- The HP EliteBook 830 x360 G6 earns a 9 out of 10 on our repairability scale (10 is the easiest to repair):
  - SSD, RAM, and battery are accessible and removable.
  - Manufacturer provides free user-accessible repair documentation.
  - All screws are standard Phillips and Torx.
  - Overall mostly modular, but the motherboard contains both ports and CPU making for expensive repairs.