

Disassembling a Macbook Pro (a1278)

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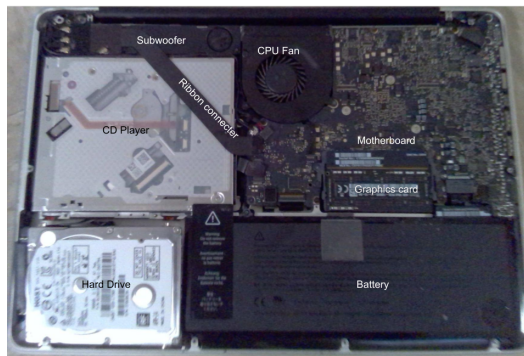
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495 words

We chose an old Macbook Pro because we thought it would be complex and fun to take apart. We also knew that the Technology Director Ms. Krevda probably had some old broken Macbooks that we could take apart. The Macbook we chose was the a1278 model that was built in mid 2012.

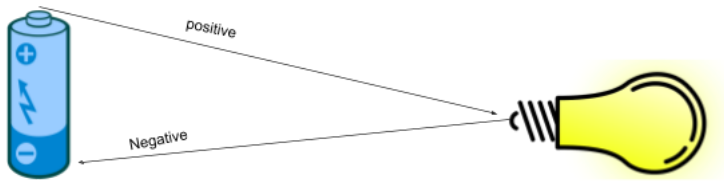
Even though we were not able to take out all of the parts we were able to get a full part count from [Apple support](#), and these included. 13.3-inch (diagonal) LED-backlit glossy widescreen display, and 2.9GHz dual-core Intel Core i7 processor with 4MB L3 cache. The memory included 4GB of 1600MHz DDR3 and 8GB of 1600MHz DDR3 with storage being 500GB 5400-rpm hard drive along with 750GB 5400-rpm hard drive. 94 total US keys and a Built-in 63.5-watt-hour lithium-polymer battery. The graphics card was an Intel HD Graphics 4000.

Here is a Diagram of the computer.



A battery works by the process of oxidation and reduction. If you look at one of those normal AA batteries, the positive side absorbs electrons that the negative side oxidized, that sends electrons out and they are

absorbed by the lightbulb and then sent back to the battery's negative side. Anything connected to the positive wire will be powered. The battery is dead because not all of the electrons are put back in the loop and the thing absorbing power is taking all of the electrons.



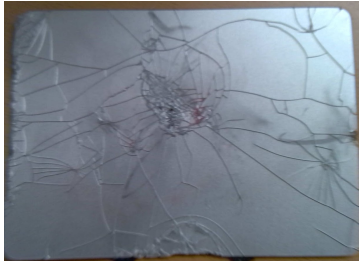
The hard drive works by having multiple disks layered on top of each other with a magnetic reader and a magnetic writer. The data is stored by using the writer to change the magnetic pull from one to the other and one of them being zero and the other one these sections are called bits. The reader reads them to see if they are one or zero then takes the reading as a number letter or even photo.

The CD player works by shining a laser on to the disk and if it is a pit it is a one if it is land it is a zero. The laser tells what it is because the land will send back more light than the pit. While spinning it and moving closer just like a record player.

These all work together to make a working computer thanks to the CPU located in the motherboard. When the CPU receives an input it sends a request down to the memory in the disk drive which sends up what needs to be executed because of that input then sends that task back to the CPU where it is processed and executed. If you click on the play button for the CD player it

will send the request to the CPU then down to memory then back up to the CPU where it plays the CD player. All of this is powered by the battery.

We learned battery acid is poisonous and that a computer is a very well built and complex system.



Mouse pad



Hard drive