



Breakdown of a Dell Latitude E7470

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IST 110: INFORMATION, PEOPLE, AND TECHNOLOGY

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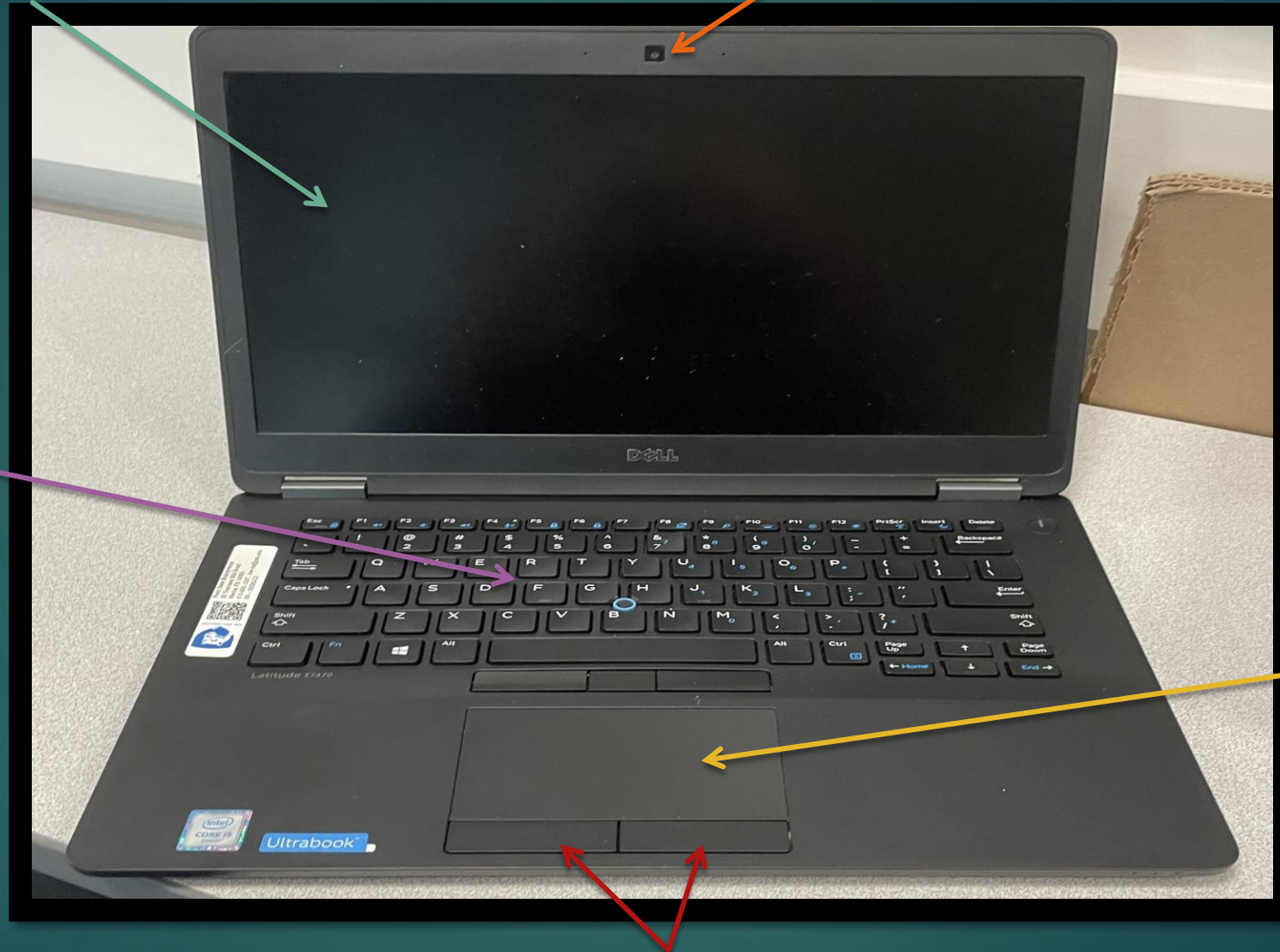
Computer Screen (Output Device)

Computer's Camera
(Input Device)

Keyboard
(Input Device)

Touchpad
(Input Device)

Left and Right Click Buttons (Input Devices)



**HDMI Port
(Input / Output Device)**

Motherboard (Enclosed in Box)

DC Charge Port

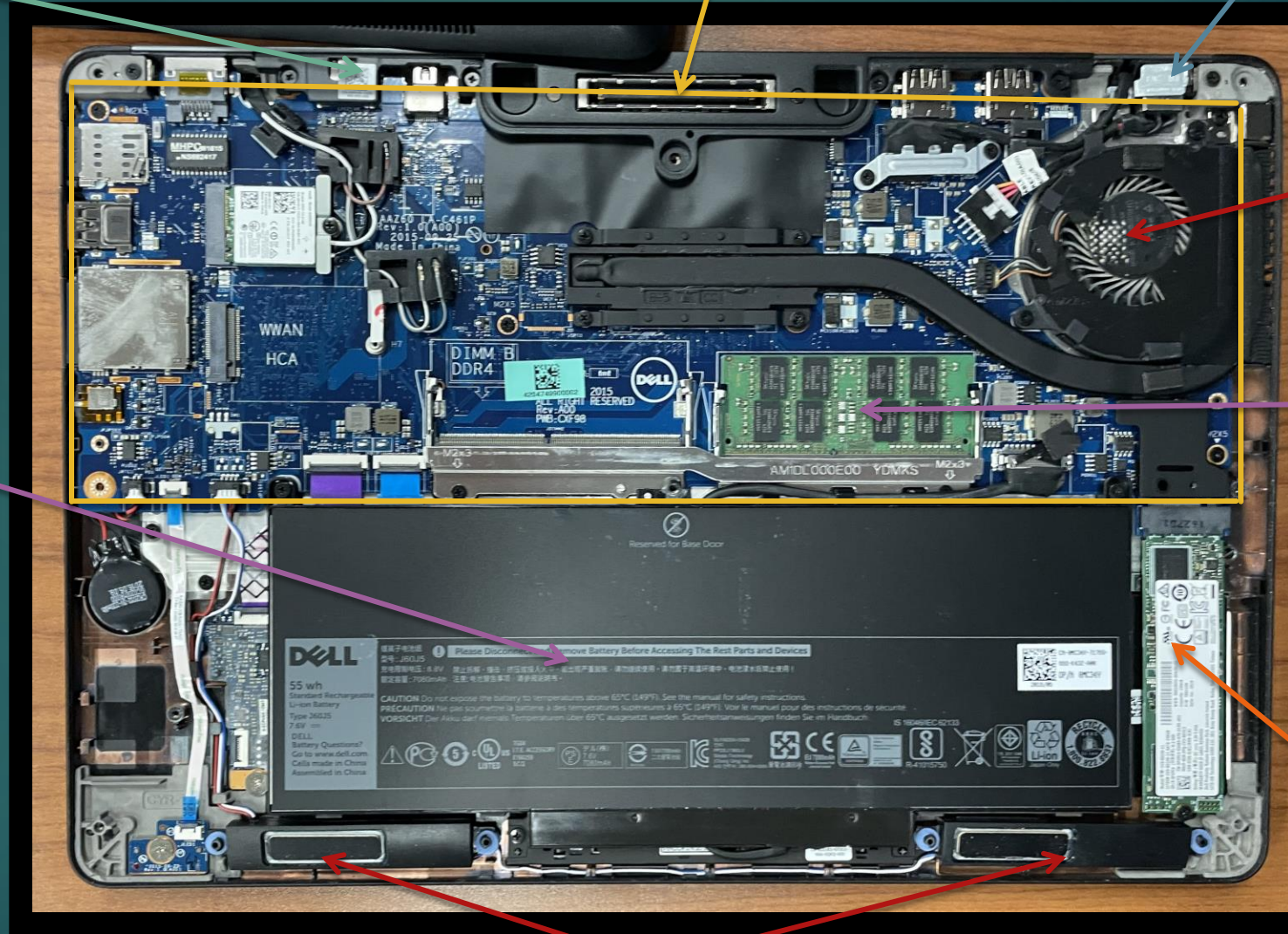
**Computer Fan
and Heatsink**

**Random Access
Memory**

**Standard
Rechargeable
Lithium-ion
Battery (Power
Supply)**

Solid-state Drive

Right and Left Speakers (Output Devices)



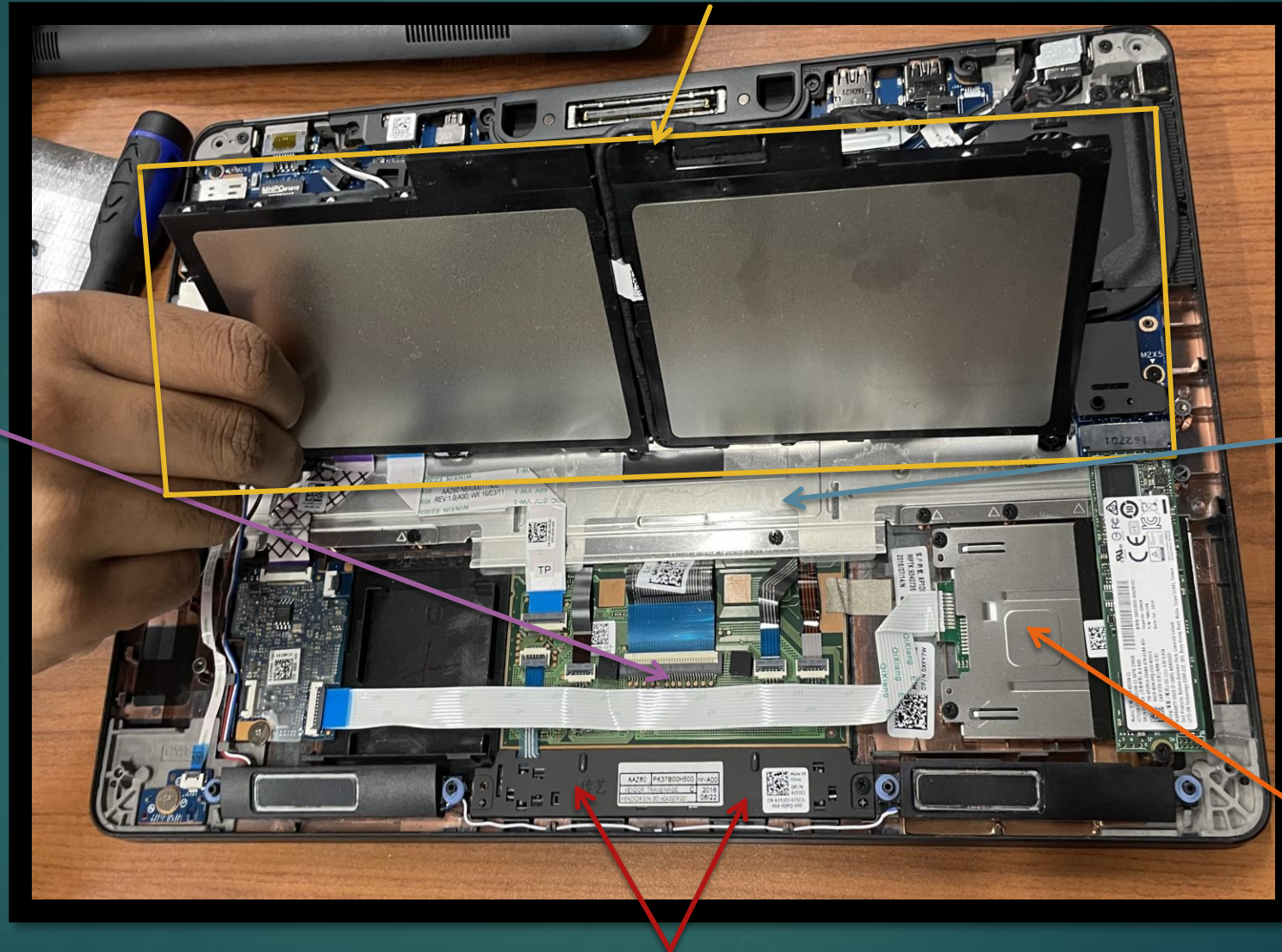
Standard Rechargeable Lithium-ion Battery (Power Supply)

Bottom of the Touchpad (Input Device)

Backend of the Keyboard (Input Device)

Smart Card Reader (Input Device)

Left and Right Click Buttons (Input Devices)



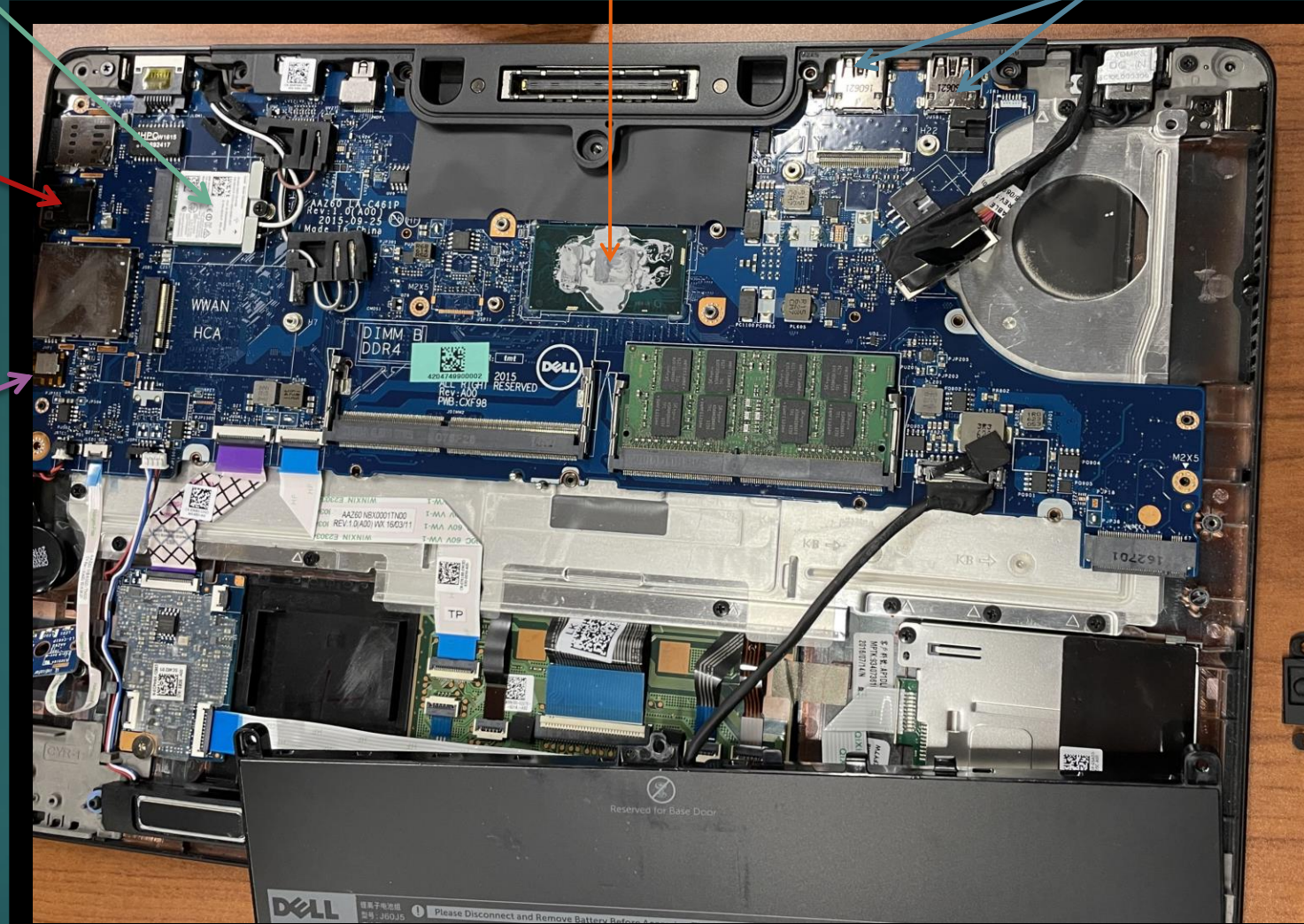
Network Card (Input /
Output Device)

Central Processing Unit

USB Ports (Input /
Output Devices)

USB Port
(Input / Output
Device)

Headphone Jack
(Output Device)



Reflection of Breakdown

For this assignment, my group and I disassembled and then reassembled a Dell Latitude E7470 portable computer. This is the first time I have ever properly disassembled a computer and then put it back together. The inside of the Dell Latitude looked very much how I had expected it to. Though, I have seen the inside of a Lenovo laptop before, and I have seen pictures of the insides of other computers. The hardest thing about this project for me was trying to figure out where all the screws went. And, in the future I will try to keep track of where each individual screw came from. Another difficulty was figuring out which individual component was the CPU. Originally, we thought it was the part that I later identified to be the network card. However, while reading a guide on removing the fan, I identified the CPU as the chip in the center of the motherboard beneath the heatsink. I also noticed while looking at the computer that it has extra slots in it for additional RAM.

Reflection of Breakdown

The most interesting thing that I found in the documentation about this computer is that almost every guide has you remove the internal battery from the computer. This makes sense though since the battery could cause electrical shock and could get damaged if punctured. I also found it interesting that it's important to ground oneself before messing with the inside of a computer.

This project has helped to give me the confidence to disassemble and then reassemble a computer. Now that I have done it once I would like to try disassembling and then reassembling another computer. However, I probably won't as I don't want to end up damaging it in the process. After completing this project, I did experiment with disassembling a calculator, but I couldn't get the circuit board to come out. In the future, I would very much like to learn to properly fix, modify, and build computers as well as other hardware devices.