

Introduction to Hardware

Day 5: Session 1

Introductions



Instructors

- Name
- Job / Company
- Industry Experience
- Something interesting

Volunteers

- Name
- Job / School
- Something interesting





Session Overview



Learning Objectives

- Define technology hardware
- Describe purpose of technology hardware
- Identify server components
- Discuss differences between laptop & desktop components
- Describe Networking components
- Compare & Contrast gaming consoles with other hardware





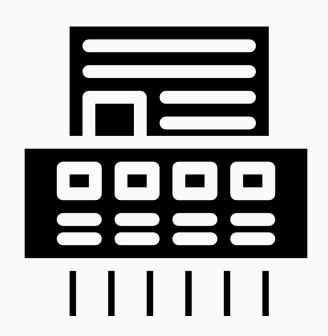
What is Technology Hardware?



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Hardware (H/W), in the context of technology, refers to the physical elements that make up a computer or electronic system and everything else involved that is physically tangible. This includes the monitor, hard drive, memory and the CPU. Hardware works hand-in-hand with firmware and software to make a computer function. – techopedia.com

https://www.techopedia.com/definition/2210/hardware-hw



What is Technology Hardware?



Hardware Components are
the individual parts, with specific jobs,
that when combined produce Compiled
Hardware, the devices we use every day.





Student Activity



Examples of Compiled Hardware Items

- Desktops
- Laptops
- Servers
- Gaming Consoles
- Network Switches
- Smartphones

- Tablets
- Smart TVs
- Tesla Cars
- Digital Cameras
- Digital Readers (e.g. Kindle)
- Can you name more?







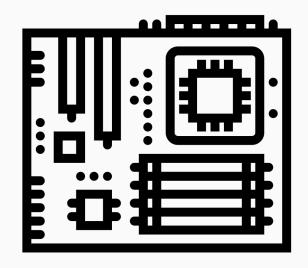
Server Components



Hardware Components in a Server:

- Motherboard
- CPUs
- Memory Chips
- Hard-Drives
- Network Cards
- Storage controllers
- Can you think of some others?





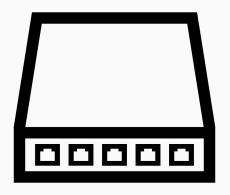
Networking Hardware



Networking uses other types of compiled hardware including:

- Switches
- Routers
- WiFi Access Points
- IP Cameras
- IoT Devices
- Can you think of some others?





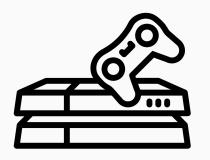
Gaming Consoles vs. Desktops & Laptops

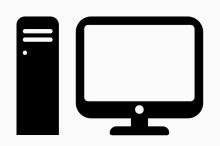


Gaming Consoles

- Specialized for a few limited tasks (e.g.) gaming, streaming content
- Hardware components selected to optimize performance for specific tasks

Can you think of some others similarities and differences?





Gaming Consoles vs. Desktops & Laptops

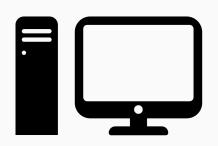


Desktops & Laptops

- Designed to perform a wide variety of different tasks
- Hardware not necessarily optimized for a specific task (but can be as in gaming PCs)

Can you think of some others similarities and differences?





Closing / Wrap-up



What we learned?

- Define technology hardware
- Describe purpose of technology hardware
- Identify server components
- Discuss differences between laptop & desktop components
- Describe Networking components
- Compare & Contrast gaming consoles with other hardware



What's next...



End of session 1

- Time for break
- Snacks served in Cafeteria
- Remember to use restrooms



