

Buying Your Next Device



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About Me

- Education:
 - BSIT – Information Technology (Web Development)
 - MAEd – Adult Education (Online Curriculum Development)
- Employment:
 - Retired US Navy Chief Petty Officer
 - Microsoft Tech Support
 - Muscular Dystrophy Assn.
 - Tucson VA Hospital
- Volunteer
 - Web Director, Computer Booters of Sun Lakes User Group
 - APCUG (Association of Personal Computer User Groups) Speakers Bureau
 - President, New Adventures in Learning – Lifelong Learning arm of Chandler/Gilbert Community College.



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Devices



Smartphone



Tablet



2in1



Laptop



Netbook



Desktop



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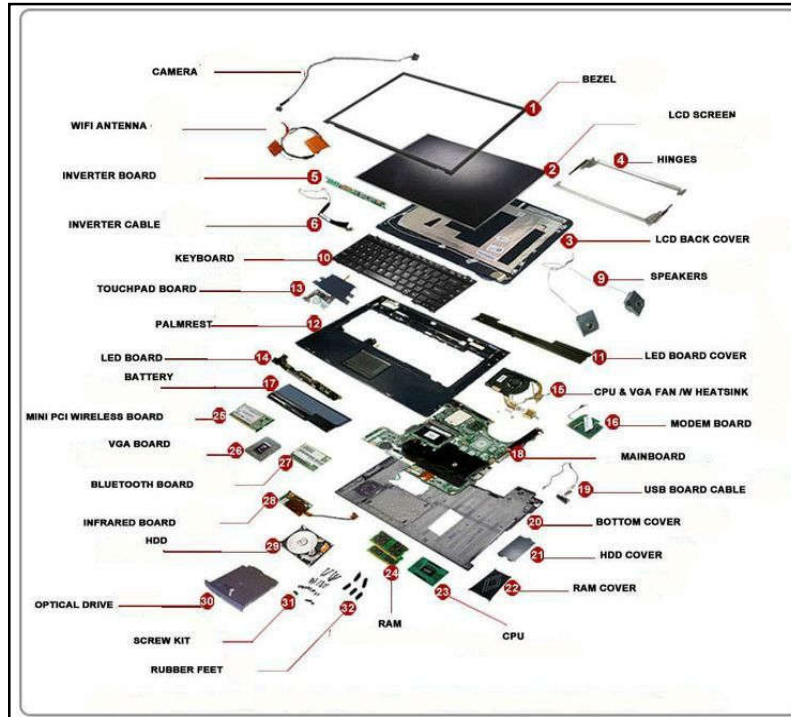
Today's Devices

Whether you're looking to play games, stream movies, or stay connected while traveling or at home, the latest computing devices balance portability with the performance and power you need.



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What's Inside

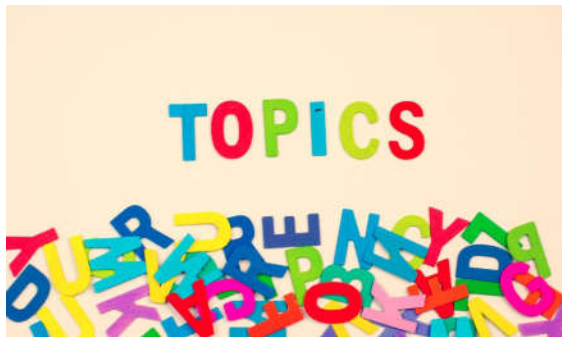


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Presentation Topics

- Use Cases
- Form Factors
- Operating Systems
- Screen Features
- Processors
- Memory
- Internal Storage
- Additional Features



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How will you use your device?

- **Light use:**

- Browsing the web
- Paying bills online
- Email and social networking
- Organizing and sharing digital photos.



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How will you use your device?

- **Average use:**

- Storing and streaming music and movies
- Tasks like spreadsheet and document creation.



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How will you use your device?

- **Demanding use:**
 - Multitasking with multiple tabs and programs
 - Sophisticated graphics and photo editing
 - Video production.
 - Online games



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2-in-1s vs. Traditional Laptops

- Form Factor
 - Traditional “clamshell”
 - 2-in-1
 - Combine a powerful laptop and a go-anywhere tablet in one lightweight, portable device (and may also be called “convertible” or “hybrid” laptops).



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Operating Systems



MacOS



Windows



Linux



ChromeOS



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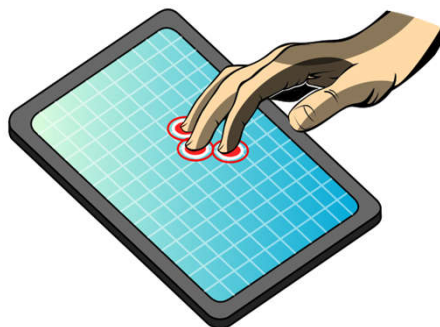
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Screen Features

Touch Screens

- Touch-screen laptops make navigating on your computer more intuitive.
- Tap to select, hold and drag to move items, swipe to scroll and pinch to zoom, just as you would on a smartphone or tablet.
- Currently available on many Windows laptops and select Chromebooks.



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Screen Features

Screen Size

- Laptop screen sizes range from about 11 up to 17 inches, measured diagonally.
- A larger screen is ideal for gaming, watching movies, photo and video editing, and viewing documents side by side.
- Keep in mind, a big screen can increase the overall size, weight and power consumption of a laptop.



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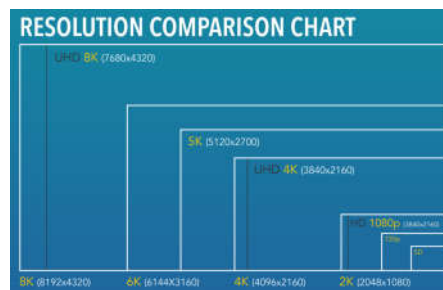
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Screen Resolution

- **Full HD:** 1920 x 1080 resolution allows you to watch Blu-ray movies and play video games without losing any level of detail.
- **HD+:** 1600 x 900 resolution is great for casual gaming and watching DVD movies.
- **HD:** 1366 x 768 resolution is standard on mainstream laptops. Good for web surfing, email and basic computing tasks.



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Screen Resolution

- **4K Ultra HD:** 3840 x 2560 and 3840 x 2160 resolutions boast four times the pixels of Full HD.
- **QHD (Quad HD) and QHD+:** With 2560 x 1440 and 3200 x 1800 resolutions, respectively, the extremely high pixel density creates crisp detail and sharp text.
- **Retina display:** 2560 x 1600 and 3072 x 1920 resolutions are found in Apple's 13" and 16" laptop displays, respectively.



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Processors

Intel® processors

- **Core i9:** Intel's top-tier processor.
- **Core i7:** A popular choice for "power users" like gamers, graphic designers, photographers and videographers.
- **Core i5:** Mid-grade Core processor.
- **Core i3:** The entry-level Core processor.



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Processors

AMD processors

- **Ryzen 9:** AMD's premium processor.
- **Ryzen 7:** Performance for intensive tasks.
- **Ryzen 5:** All-around multimedia performance
- **Ryzen 3:** Responsive and efficient to maximize battery life.



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Processors

Apple

- The Apple M1 chip is Apple's first chip designed specifically for Mac, and can be found in the latest generations of MacBook Pro and MacBook Air.



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CPU Threads & Cores

- **Multithreading** is a technique which allows a CPU to execute many tasks of one process at the same time. These threads can execute individually while sharing their resources.
- **Multicore** is a processor with two or more cores and can process multiple sets of instructions simultaneously.
- Its clock speed is twice, yet multicore CPU's generally consume less energy.



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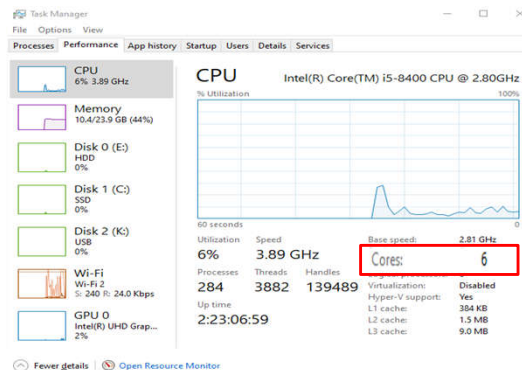
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Processor Cores

- Find out how many cores your processor has
1. Press **Ctrl + Shift + Esc** to open Task Manager.
 2. Select the **Performance** tab to see how many cores and logical processors your PC has.



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Compare CPUs

Compare the performance of up to 5 different CPUs

Compare List

Add other CPU:

Q Intel Core...

COMPARE

[PassMark - CPU Comparison \(cpubenchmark.net\)](https://www.cpubenchmark.net)

<https://www.cpubenchmark.net/singleCompare.php>



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Memory

- **Random-access memory**, or RAM, is important because it helps your processor tackle multiple tasks at once.
- A minimum of 4 gigabytes (GB) is required for basic computing, and 12GB or more is recommended if you're into graphics and advanced photo or video editing.



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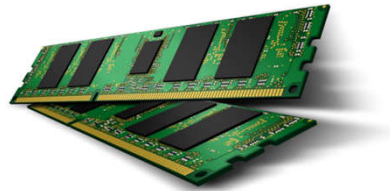
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Memory

- Most laptops have 4GB–12GB pre-installed, and some have up to 64GB.
- If you think you might need more memory later, choose a model that lets you expand the RAM.
- Many devices today are not expandable due to form factor design.



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Internal Storage

- **Traditional hard disk drives (HDD)**
 - Larger storage capacities
 - Added weight and thickness
 - Added heat and noise.
- **Solid state drives (SSDs)**
 - Lighter, faster, cooler and quieter.
 - More expensive per GB.



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Additional Features

Connectivity

- Laptops typically provide several options for staying connected to the internet as well as to other devices.
 - Wi-Fi
 - Bluetooth



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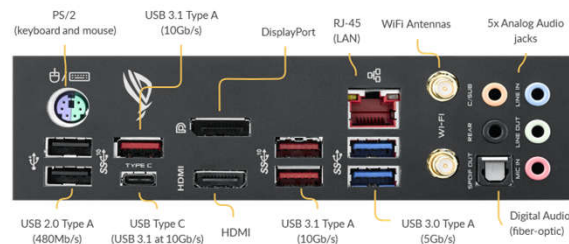
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Additional Features

Ports

- USB-A – Legacy ports
- USB 3.0
- USB 2.0
- USB Type-C:
- Thunderbolt
- HDMI or mini HDMI
- Media card slots



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Additional Features

Security

- Some laptops offer additional physical security features to help safeguard you and your information.
 - Fingerprint reader
 - Webcam privacy shutter or kill switch.
 - Face recognition



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Applications

- Internet Browser
- Office Applications
- Games
- Web Conferencing
- Video/Audio Production
- Graphics/Animation Design
- Image Editing
- Email
- Video Streaming



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Accessories

- An ergonomic mouse or keyboard
- Webcams
- Printers
- Sleeves and bags
- Headsets
- Docking Stations
- Portable Storage
- Sound Systems



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Laptop Quiz

- Laptop Finder Quiz will help to decide What laptop should you buy.

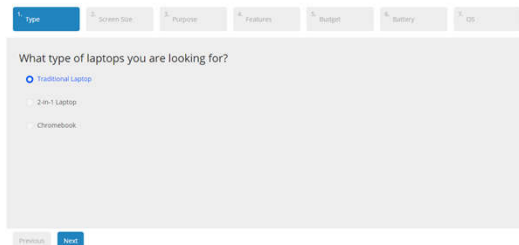
[Laptop Finder - What Laptop Should I Buy Quiz | Laptop List](https://www.laptoplist.com/laptop-finder)
<https://www.laptoplist.com/laptop-finder>

What Laptop Should I Buy Quiz in 2021

Laptop Finder Quiz will help to decide What laptop should you buy in 2021.

A unique feature of LaptopList.com is this **Laptop Finder Quiz**. Participate in the short quiz, answer each question with single or multiple options about screen size, price, features, intended use type, etc and get a list of recommended laptops by our system.

The Recommendation list has a **unique URL** and you can **Bookmark, Share,** and **save the link** for later use.

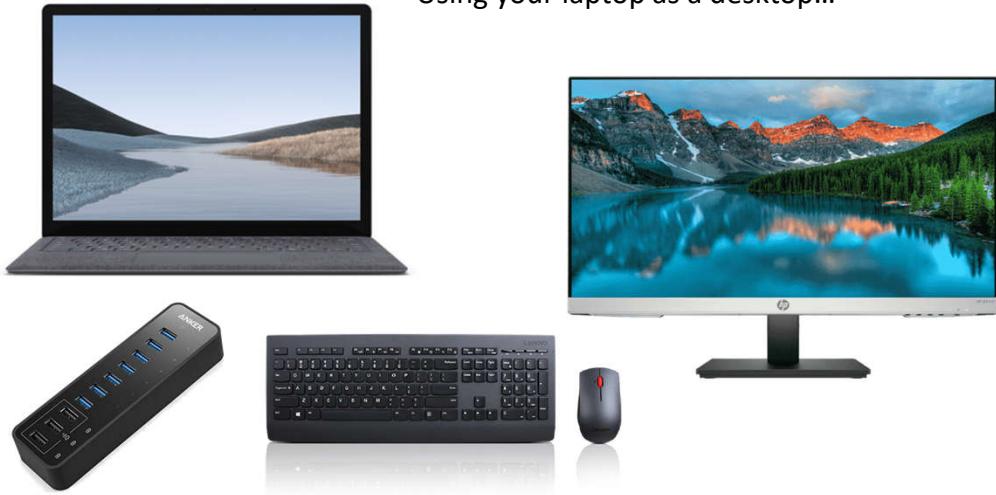


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Laptop 2 Desktop

Using your laptop as a desktop...



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Tablet vs Laptop

 An infographic comparing a tablet and a laptop. The tablet side has a pink background with diagonal lines and lists: 'Useful for point interaction', 'Small size travels well', and 'Longer battery'. The laptop side has a darker pink background with circles and lists: 'Good storage capacity', 'Using for frequent writing', and 'Fully contained system makes for a solid stand-alone usage'. The Lifewire logo is in the bottom left.

- Useful for point interaction
- Small size travels well
- Longer battery

- Good storage capacity
- Using for frequent writing
- Fully contained system makes for a solid stand-alone usage

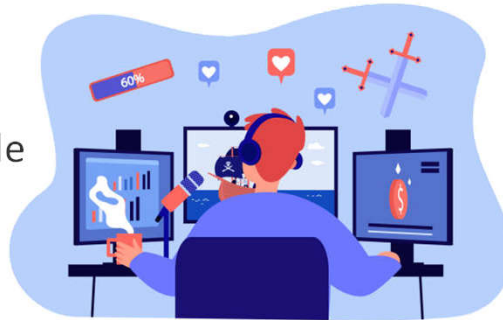


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Putting It All Together

- Consider what your purchase is for
 - Home
 - Work
 - Gaming
- Decide on your basic style
 - Desktop
 - Laptop
 - Tablet
 - Hybrid



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Putting It All Together

- Decide on an operating system
 - Windows
 - Mac
 - Linux
 - Chromebook
- Consider what software you want
- Determine your price range



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Putting It All Together

- Determine what options you need
 - RAM
 - Storage
 - Processor
- Research
 - Reviews
 - Top 10 Reviews
 - ConsumerReports
 - Google Search



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Putting It All Together

- Consider where to purchase
 - Online
 - Big Box
 - Specialty Store
- Prices
 - Clearance
 - Sales
 - Open Box
 - Refurbished




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Latest Desktop Mini PC
Intel Core i7-1165G7 2.8 GHz – 4.7 GHz Turbo, 8 Thread, 12MB Cache, Kingston 32GB RAM, Kingston 1TB PCIe SSD, 28W Intel Iris Xe Graphics, Win 10 Pro

Built with Intel® Core™ i7 processors

Intel® NUC 11 Performance Mini PCs and Kits

Model	NUC11PAH7 Mini PCs
Processor	11th Generation Intel® Core™ i7-1165G7 processor 2.8 GHz – 4.7 GHz Turbo, 4 core, 8 thread, 12 MB Cache
Graphics	28W Intel® Iris® Xe Graphics, up to 1.3 GHz
Memory	Kingston 8GB/16GB/32GB
Storage	Kingston 256GB/512GB/1TB
Operating System	Windows 10 Pro
Other Features & Technology	HDMI 2.0b port Mini DisplayPort 1.4 port Two Thunderbolt™ 3 ports (fast charging) Intel® Ethernet port Intel® Wi-Fi 6 and Bluetooth 5 Three USB 3.1 Gen2 port SDXC slot with UHS-II support Beam-forming, far-field, quad-mic array, with Alexa support Quad display, and 4K support Front consumer infrared port Kensington Lock Ready 3-Year Limited Warranty
Lid	Standard flat lid
What's Inside	Mini PC, US Power Plug, US AC Cord, Mounting Bracket, User
Warranty	Three-year original warranty for Barebone from Intel. Three-year warranty for upgraded RAM / SSD, OS from GEEK*. For more

The Power of Small
www.intel.com/NUC

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Geezer Tech
Chandler, Az
 Technology For The Age Challenged



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