

# Computer Purchasing Guide

## [Updated 11/2022]

### Chromebooks

**Pros:** Great Battery life, low cost, ease of use, does productivity work efficiently.

**Cons:** Not ideal for GPU based workloads such as nonlinear video editing, CAD, and software development.

**Use case:** General Computing (eg. word processing, web browsing, media viewing)

#### Specs

	Minimum	Recommended
RAM	4gb	8gb
Screen Resolution	1366x768	1920x1080
Storage	16gb	32gb
End of auto-update	2025	2026+

#### Recommended Models

14" Screen: [Lenovo 14e gen 2](#)

11" Screen: [Lenovo 100e mk2](#)

To see how long a specific Chromebook will continue to receive updates, please refer to [Google's auto-update policy support page](#).

# Windows Laptops

**Pros:** Can do almost any computing task, huge software catalog, large variety of form factors and models to choose from.

**Cons:** More expensive than Chromebooks, cheapest options can be a poor experience, Windows is less intuitive than ChromeOS. On average poorer battery life.

**Use case:** General Computing, CAD, programming, Video Editing, Graphics work

## Specs

	Minimum (general use)	Recommended (graphics/gaming/Video editing)
RAM	8gb	16gb
Storage	256gb SSD	256+ SSD
CPU	Intel i3, or AMD Ryzen 3	Intel i5, Intel i7, AMD Ryzen 5, or 7
Graphics	Intel integrated	Ryzen Vega/RX, Nvidia GTX/RTX graphics
Operating System	Windows 10, or Linux	

**Recommended Models** (sorted from lowest to highest starting price)

**Lenovo Ideapad Series** \*preferably with Ryzen CPU (low cost for good performance)

**Acer Nitro 5 Series:** affordable entry level to mid range gaming/CAD/Graphic design capable laptops)

**Lenovo Thinkpad L,T,X,P lines**

**Dell XPS 13 and 15 lines:** (Focus on portability and battery life over raw performance)

**Asus TUF line** (mid to high end gaming/CAD/Graphic design laptops)

**Razer Blade line** (high end gaming/CAD/Graphic design capable)

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# Mac Laptops (Apple)

**Pros:** generally good build quality (dependent on model), High end specs compared to low cost PC/Chromebook options, excellent battery life on M1 equipped devices

**Cons:** Higher cost of entry than PC alternatives, compatible with less existing software than windows, limited choice of devices. Limited ability to run major enterprise and engineering software (eg. Creo, Solidworks)

**Use case:** Using apple exclusive software (eg. garageband, iMovie), General Computing, programming, Non Linear Video Editing, Graphics work.

**Recommended Models:** Like a windows PC it depends on intended task.

General Computing	Graphics Work	Nonlinear Video Editing	Programming
M1/M2 Macbook Air	M1/M2 14" macbook Pro	M1 Max + 512gb storage	M1/M2 14" macbook Pro

**Minimum recommended Specs:**

8GB RAM recommended

256gb storage recommended

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## Glossary of terms

**CPU:** Central processing unit (aka processor). Runs programs and executes any general computing task. A faster CPU means things tend to open faster.

**GPU:** Graphics processing unit (aka video card). Used to render 3D images and do video work. Very important for CAD, graphic design, non-linear video editing, and, to an extent, software development.

**RAM:** Random-access memory. Temporary storage for running tasks. A common example of a RAM dependent task is having many tabs open at once in your web browser.

**Non-Linear Video Editing:** Professional video editing software such as Final Cut Pro or Adobe Premiere. Requires a high end computer and is vastly more demanding and capable than very

basic editors such as iMovie or Windows Movie Maker.

**General Computing:** Document / presentation / spreadsheet creation, email, anything that can be done in a web browser, etc.

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