



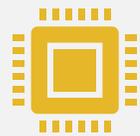
Mankato Computer Technology

LEARN THE BASICS OF FINDING, BUYING AND SETTING UP A COMPUTER. DISCOVER THE VARIETY OF PROGRAMS AND APPLICATIONS, AND GET HELP DETERMINING WHICH ONES YOU WANT OR NEED.

IS IT TIME TO UPGRADE YOUR COMPUTER?



Computers are changing all the time, with updates coming even more frequently. But when is it time for you to upgrade your computer?



Let the guys share with you the warning signs for when you have outgrown your computer, and how to go about choosing its logical successor.

Minimum Requirements

- ▶ So the absolute minimum you want to be running Windows 10 is 4GB of RAM.
- ▶ Anything less than that and it becomes unusable.
- ▶ 8GB or more is optimal.
- ▶ Pentium processors and Intel Dual core processors should be tossed in the trash.
- ▶ For processors i3 is low end but ok, i5 is good, i7 and i9 are overkill for most.
- ▶ i5 is probably the sweet spot between performance and affordability.
- ▶ Solid state drives have gotten a lot cheaper over the years and people should definitely seek them out-- they will do a lot to improve performance.

Budget, Mid, and High Range Options

Our budget option for laptops and desktops is:

i3 Processor

8GB RAM

1TB HDD

Our mid-range option (this is what I steer the majority of people toward) is:

i5 Processor

8GB RAM

1TB Solid State Drive

Higher end we normally special order because they are typically north of \$1,000 and if someone wants something like that they typically have a use in mind/certain specs and features that they are looking for.

What Windows do I have?

- ▶ Windows 7 is already out of support.
- ▶ Windows 8 is going out of support in 2023.
- ▶ In terms of upgrading, it depends heavily on if your computer has drivers for Windows 10.
- ▶ *Windows 11
- ▶ For a lot of people the rule of thumb is if the computer is less than 5 years old it is worth upgrading, if older, it should be replaced.
- ▶ There are exceptions of course for people who have older top of the line machines (but most people don't).

Are you in the market for a new computer, but are overwhelmed by the wide variety of options available?

With a variety of tablets, laptops, desktops and other devices available, the market can be hard to navigate for a typical consumer.



Apple, Microsoft, Google, and other manufacturers are all vying for their piece of the market and each offer unique products.



Many people struggle with old devices simply because they want to avoid the headache that goes into finding something new.

What to look for when you buy a computer

Tower/Desktop



A form of computer that has been around for quite a while is a tower.



A tower is one style of desktop computer that, because of its size, people keep on or near a table or desk.



Compact Desktop

- ▶ Compact desktops, which have the volume of a shoebox, and can sit be kept on your desktop.
- ▶ Check into a compact desktop, such as Intel's NCU, if you like your computer small but non portable.



All In One

▶ Another form of desktop computer is called an all-in-one. With this type of computer, all the brains of the computer are stored in a casing behind the monitor, so the entire computer sits on your desk or table.



Laptop

- ▶ A laptop is portable, weighing anywhere from 2 to 8 pounds.
- ▶ The monitor, keyboard, and mouse (in the form of a flat touchpad) are built into the laptop.



Tablet

- ▶ A thin, flat [mobile computer](#) with a [touchscreen display](#), which is usually in color, processing [circuitry](#), and a rechargeable [battery](#) in a single device.
- ▶ Tablets often come equipped with sensors, including [digital cameras](#), a [microphone](#), and an [accelerometer](#), so that images on screens are always displayed upright.
- ▶ The touchscreen display uses the recognition of finger or stylus [gestures](#) to replace the [mouse](#), [trackpad](#) and [keyboard](#) used in [laptops](#).



Features

In addition to your computer's model, take into account which of these is most important to you:

- ▶ Memory
- ▶ Processor
- ▶ Battery Life
- ▶ Keyboard
- ▶ Screen
- ▶ Peripherals
- ▶ Software
- ▶ Warranty

Processor

The Intel Core i3, Core i5, Core i7, and Core i9 Processors are the most powerful processors available in the consumer market. So by getting a laptop with an Intel Core i3 Processor, you are getting the most affordable option of the best quality products on the market. 4GB of RAM and 500GB Hard Drive capacity are more than enough for most users, but can be upgraded to your liking.

- ▶ Most processors today are multiple-core processors, such as the i3, i5, i7, and i9 processor lines from Intel.
- ▶ Those with two processors are called *dual-core*; those with four processors are called *quad-core*; and processors with six cores are referred to as *hexa-core*.
- ▶ The bottom line with cores is that the more you have, the faster your computer can process instructions because all the cores can work at once.



Memory

- ▶ Your computer should have at least 8 gigabyte (GB) of RAM.



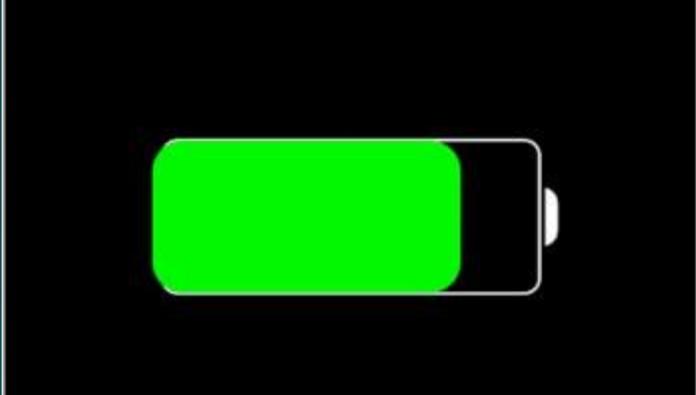
Type of hard drive:

- ▶ Computers have traditionally used hard drives to store programs and data. In many computers a solid state drive is used in place of a hard drive.
- ▶ The access speed (how fast your computer retrieves data) of solid state drives is much higher than the access speed of hard drives.
- ▶ If you need a computer which processes information very quickly look for one with a solid state drive.



Battery Life

- ▶ If you choose a laptop and will be using your laptop in settings without a power source, such as on a plane or in the doctor's waiting room, look for a model with longer battery life (some offer 10 hours or more).



Wireless Capability

- ▶ To connect to some wireless devices and networks, you need wireless capability.





Keyboard:

- ▶ Make sure the keyboard feels comfortable to you.

Manufacturer support:

- ▶ Check the warranty and technical support available. Also check for helpful documentation on the manufacturer's website.

Included software:

- ▶ Some computers come with utility programs such as antivirus software or productivity software such as Microsoft Office. Be aware that some of this software offer only short-term trial versions and you have to pay to buy the full version upgrade.

Screen:

- ▶ Computers come with screens that range from 9 inches on smaller laptops to 28-inch desktop models.
- ▶ A 15-inch monitor is comfortable for most people, but if you do work with higher-end images or watch videos, consider a larger screen as larger screens may be easier on your eyes.
- ▶ Consider getting a touchscreen to take advantage of all of Windows 10 touchscreen features.



Peripherals

- ▶ **CD/DVD drive:** Computers might come with a CD or DVD drive or not. If a computer is right for you in other ways but doesn't have a CD/DVD drive, consider opting for an external drive.
- ▶ **Graphics and sound cards:** If you want to use multimedia or game software, ask for more sophisticated sound and video features such as a discrete graphics card or discrete sound card.
- ▶ **A webcam:** If you will be calling your friends or grandchildren over a service such as Skype, it's useful to have a built-in webcam to transmit video images while talking. Most computers today include a webcam located just above the computer screen.



Looking for something special?

- ▶ Of course, we can also special order a computer to meet your needs should they be more specific or out of the norm.
- ▶ Any computers purchased through Mankato Computer Technology can be serviced at our office should they need it.
- ▶ If you do have a problem with your computer while it is under warranty, you can bring it to us to handle the warranty process instead of having to ship it off to another state for several weeks.
- ▶ So if you are in the market for a new computer, but are wary of diving into a market with a plethora of options available, give us a call to get pricing on something that will meet your needs without breaking the bank!

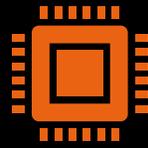


Computer Tips

- ▶ **Set up a password:** By assigning a password to your Windows user account, you may prevent people from accessing your files and personal data.
- ▶ **Protect your laptop from damage:** If you have a laptop invest in a good case for your laptop to protect it from damage when travelling. Also, get a screen protector, which is a thin sheet of plastic that you place across your screen to prevent scratches.
- ▶ **Consider using a picture password:** If your computer or laptop is in a spot where other people surround you, consider using a picture password, which is almost impossible for people to get past. Also be aware that using a pin rather than a password is probably the least secure way to go because it's so short and made up entirely of numbers.

Computer

Maintenance: You need to perform some basic maintenance on your computer to keep it running in top shape. Here's some advice to keep your computer secure and performing optimally:



Windows Firewall: Turn on the Windows Firewall feature to stop people and programs from downloading malicious code and viruses to your computer from the Internet.



Antivirus software: You can use antivirus software such as Windows Defender, which comes with all Windows 10 computers, or a third-party antivirus program such as MacAfee, to scan your computer and remove viruses.



Use System Restore: You can create a System Restore Point to save current settings and revert to those settings if your computer begins having problems. This can happen after installing a new program or driver for hardware.

Maintenance Continued

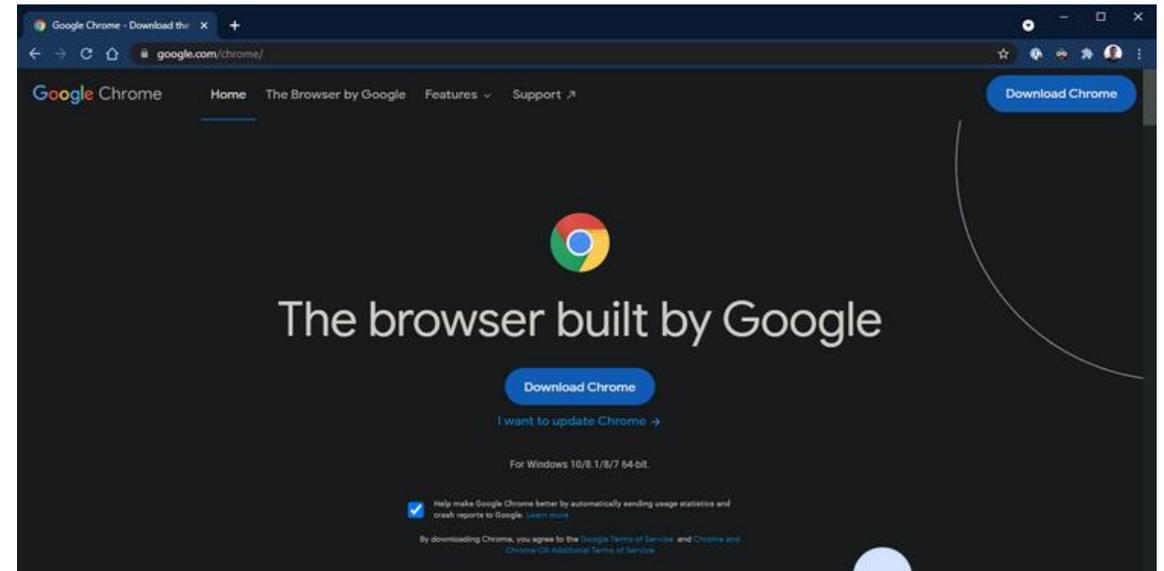
Optimize your hard drive: Optimizing your hard drive cleans out any damaged or obsolete files to improve your computer's performance.

Battery life: If you have a laptop or tablet, you should be aware that all batteries wear out and your computer's is no different. If your battery doesn't hold a charge as long as it used to, consider buying a replacement battery from the manufacturer.

Perform a Disk Cleanup: Use the Disk Cleanup feature to free up some disk space on your hard drive. This helps your computer perform better.

Programs and Applications

- ▶ *15 Must-Have Windows Apps and Software for Any New PC*
- ▶ *<https://www.makeuseof.com/new-windows-pc-must-have-applications-to-install-first/>*
- ▶ Internet Browser: Google Chrome

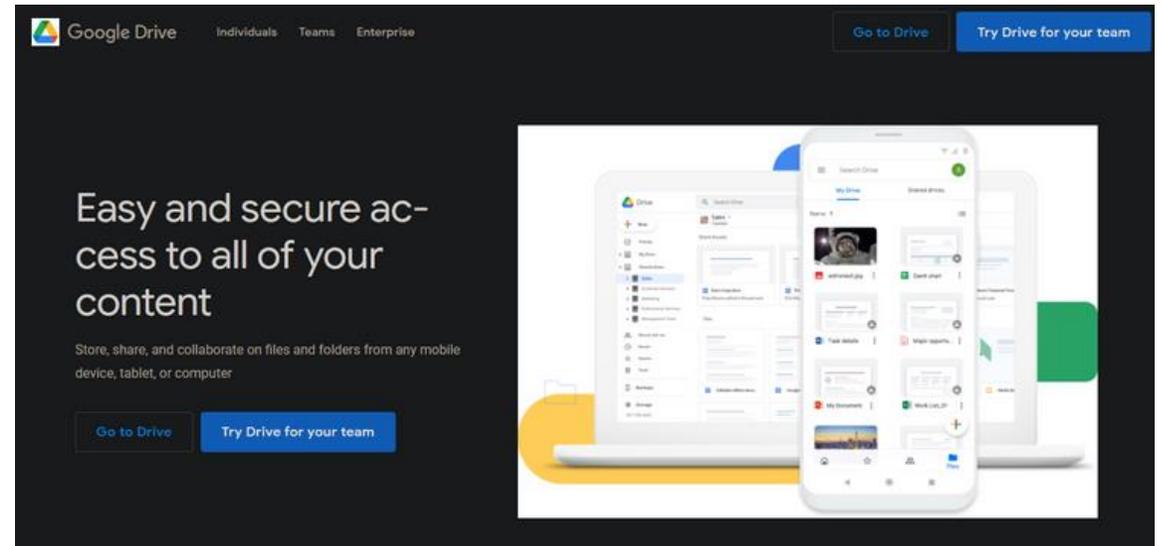


Browsers

- ▶ *Unsurprisingly, Google Chrome is still our top browser pick. It's super-speedy, includes little conveniences like letting you instantly search Google for an image, and has a vast library of Chrome extensions. Throw in cross-platform syncing that lets you open your desktop tabs on your phone and vice-versa, and you've got a fantastic browser for all purposes.*
- ▶ *Chrome isn't without its faults, however. Plenty of people want to avoid Google's pervasive tracking in Chrome, and it gobbles a lot of RAM. But the good news is that you have plenty of other fantastic browsers to choose from, like Firefox and Opera.*
- ▶ *Even the built-in [Microsoft Edge is now based on Chromium](#), so give it a try if you prefer Microsoft's approach over Google's.*

2. Cloud Storage: Google Drive

- ▶ If you only pick one cloud app service, Google Drive is the one you should install. It offers 15GB of free storage, which is shared across your Google account with Google Photos and Gmail too.
- ▶ Google Drive offers an app for every major platform, so you can take your files anywhere. In addition to syncing files you place in the dedicated Google Drive folder, the desktop app makes it easy to back up folders on your computer and external devices, too.
- ▶ It's also super easy to share files with others, plus the service plays well with Google's productivity suite. Whether you use it as part of your backup plan, as a cloud flash drive, or for setting up shared folders with others, Google Drive is an essential Windows 10 app pick.



3. Music Streaming: Spotify

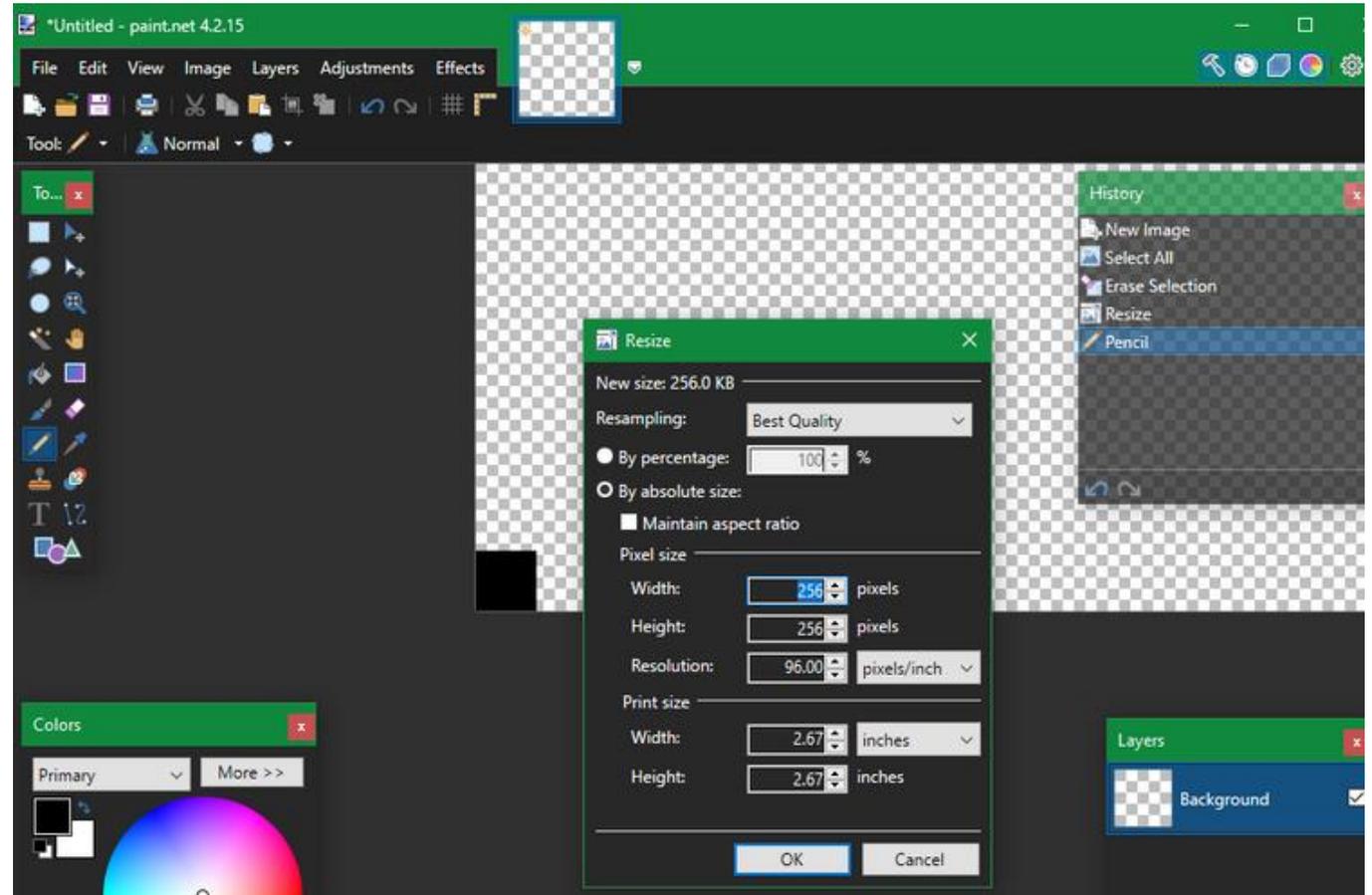
- ▶ Years ago, listening to music on your desktop meant painstakingly importing and organizing a collection of MP3s. That's no longer the case; music streaming services eliminate the need for buying individual albums physically or digitally.
- ▶ There are many music streaming services in the market, but we think the essential pick for Windows 10 is Spotify. Its ad-supported free plan lets you listen to as much music as you like, and there are [several Spotify Premium plans](#) that are worth it for avid listeners. Spotify is also home to hundreds of podcasts, making everything available in one convenient place.

4. Office Suite: LibreOffice

- ▶ *Chances are you'll need a tool that lets you work with documents, spreadsheets, and presentations at some point. You might think that paying for Microsoft Office is the only way to do this, but that's far from the truth.*
- ▶ *No Windows user should go without LibreOffice. It's a completely free and powerful office suite that includes alternatives to Microsoft Word, Excel, PowerPoint, Access, and more. Once you get used to a few small aesthetic differences from MS Office, you'll be flying through your work with LibreOffice.*

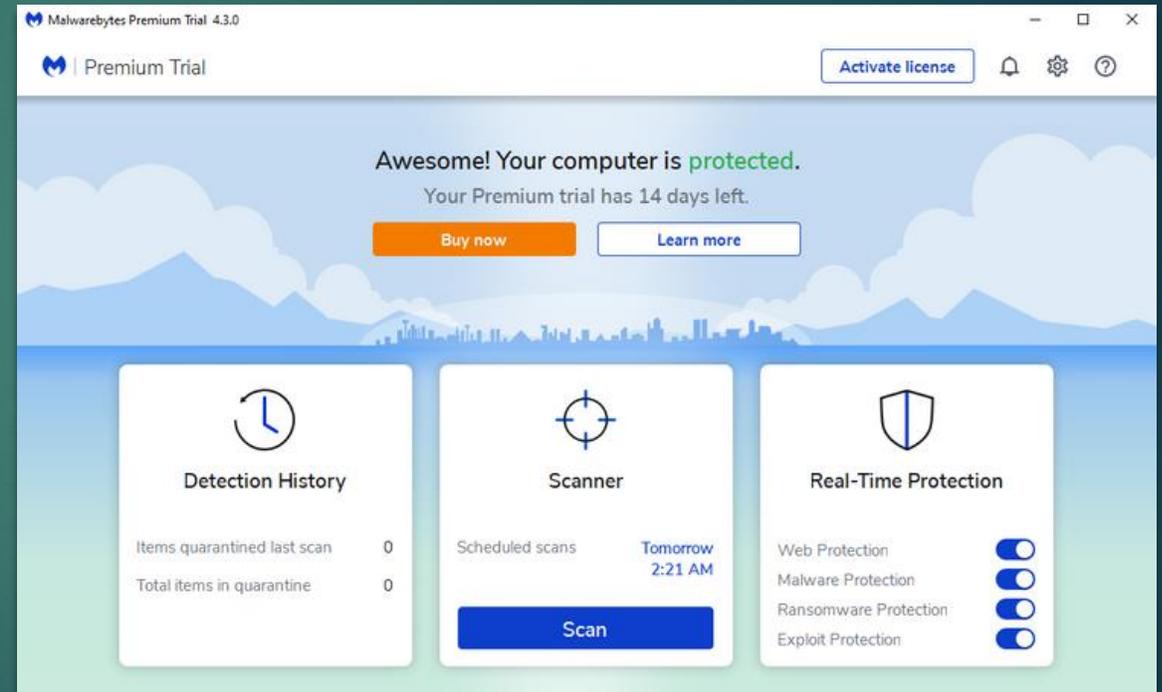
5. Image Editor: Paint.NET

- ▶ Whether you want to try your hand at basic image manipulation, need a way to blur sensitive info in screenshots, or want to retouch old photos, everyone should have an image editing program installed. Photoshop is the gold standard for this, but there are plenty of free tools that are more accessible.
- ▶ Paint.NET is a must-have Windows app for your image editing needs. It's far more powerful than Microsoft Paint, but doesn't overwhelm you with loads of confusing tools. You can easily blur out parts of an image, auto-level photos to make them look better, and add text and shapes to your pictures in just a few clicks. Plenty of plugins allow you to expand its functionality, too.



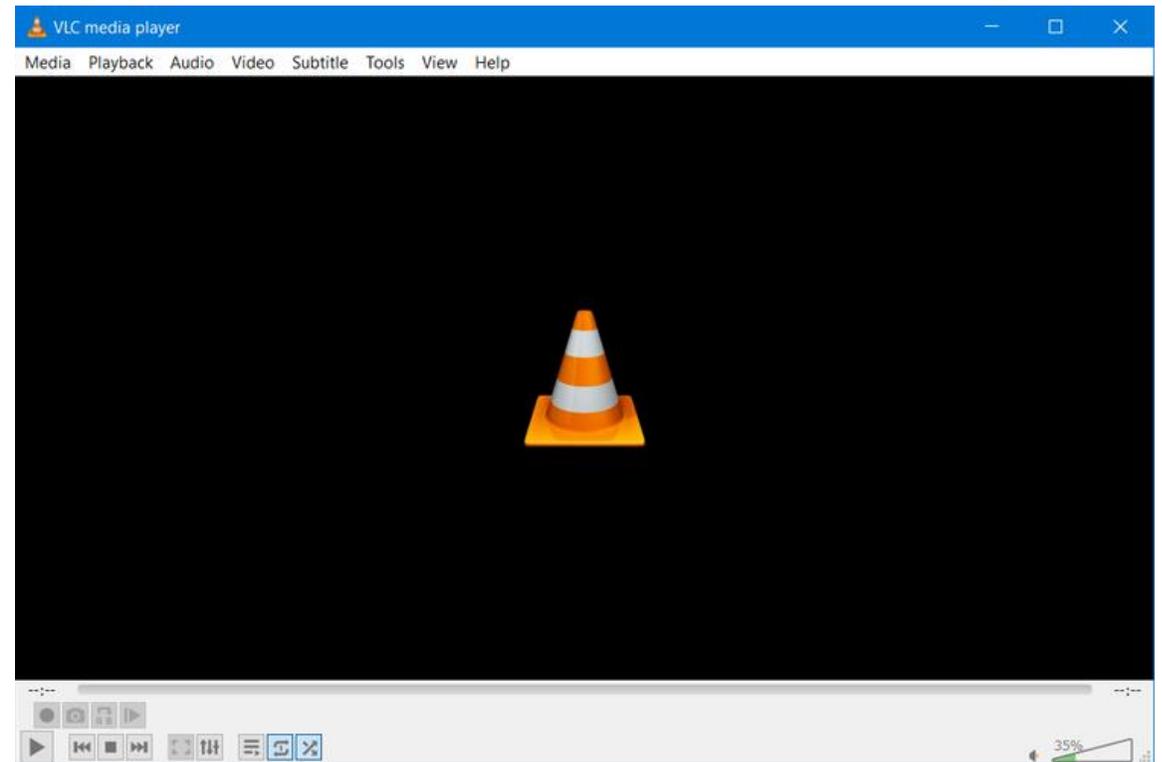
6. Security: Malwarebytes Anti-Malware

- ▶ Windows 10 includes Windows Defender, which is a good enough antivirus for most users. However, it's wise to keep a secondary security program installed.
- ▶ For this, you can't beat [Malwarebytes](#). The free version lets you scan your system for malware that your antivirus might not catch. And for a powerful blended security solution, [upgrading to Malwarebytes Premium is worth the cost.](#)



7. Media Player: VLC

- ▶ Thanks to YouTube's ubiquity, you probably don't watch local videos too often. However, everyone should still keep a solid video player around on your desktop for when you need to play media files locally. Even if it's not one of the things you think to download on a new computer right away, it will come in handy someday.
- ▶ For this task, nothing beats [VLC Media Player](#), which packs a ton of features and is capable of playing nearly every video and audio format imaginable. You might not break it out often, but give VLC a download while you're setting up your PC. You'll save yourself the hassle of messing with video codecs or using QuickTime, which isn't supported for Windows any longer



8. Screenshots: ShareX

- ▶ [Taking a screenshot on Windows](#) is useful for everything from capturing funny moments to having a record of important information. The basic Snipping Tool and Snip & Sketch apps only provide a barebones feature set, so you need something better in your pack of essential Windows apps.
- ▶ You won't find a more powerful free screenshot tool than ShareX. With tons of capture methods, a solid built-in editor, the ability to run automated steps after you take a screenshot, and extra tools like a color grabber and ruler, ShareX has an impressive feature set for no cost

9. File Compression and Extraction: 7-Zip

- ▶ *Windows includes native support for simple zipped files, but anything beyond the basics requires a more powerful tool. While this isn't the most exciting software category, a file extractor is still a must-have PC app so you can work with any kind of archived files you might encounter.*
- ▶ *7-Zip is the gold standard for [file compression and extraction apps](#). It's small and installs in seconds, is easy to use, and stays out of your way when you're not using it. Those who needs advanced features will still find them in 7-Zip, though.*
- ▶ *The only drawback of 7-Zip is its aged appearance. If you can't get over that, take a look at PeaZip, which is a similar tool with a much more attractive interface. Either way, you certainly don't need to pay for tools like WinRAR.*

10. Messaging: Rambox

- ▶ *Chances are that you use at least one messaging service to stay in touch with your friends during the day. With so many options to choose from, there's no way we could pick the best messaging service, because it all depends on what your friends use. So why not have all of them in one place?*
- ▶ *Rambox is our pick for the best messaging app on Windows. It lets you add accounts from dozens of popular messaging services, including WhatsApp, Facebook Messenger, Skype, Telegram, GroupMe, Hangouts, Discord, and many more.*
- ▶ *The app simply adds a new tab for every service you use, letting you keep up with every group in one window. It includes some extra features that make it more useful than opening these apps in your browser, and you can easily close one program when it's time to focus.*

11. Clipboard Manager: ClipClip

- ▶ *A clipboard manager is an important Windows app because it saves you a lot of time. Instead of only being able to keep one item on your PC's clipboard at once, clipboard managers let you keep track of the last several dozen entries you've copied.*
- ▶ *ClipClip is a great Windows 10 clipboard manager to use. In addition to logging what you copy, the app also lets you pin frequent snippets for easy access, and create folders for easily pasting canned text like addresses, email responses, and similar.*
- ▶ *The app doesn't overwhelm you with options, but does let you tweak its hotkeys, disable clipboard monitoring when needed, and choose what the app ignores. Add it to your list of basic Windows software and you'll never have to worry about [managing your PC's clipboard](#) again.*

12. Password Manager: Bitwarden

- ▶ *It's not humanly possible to create strong passwords for every account and remember them all. That's why you need a password manager. It's a secure service that creates good passwords for you and locks them behind one master password, which is the only one you have to remember.*
- ▶ *Bitwarden is the best free password manager and one of the most important pieces of software you can download. In addition to the desktop app, you'll need to install the Bitwarden extension in your browser of choice to easily auto-fill passwords. Follow our [complete guide to getting started with a password manager](#) to learn how to get started.*

13. Backup: Backblaze

- ▶ *Backing up your PC is essential, as there's only a natural disaster, break-in, or malware attack could wipe out all the files on your machine. You don't want to lose all your documents, photos, and other files and have to start from scratch.*
- ▶ *We like Backblaze as an essential backup service for Windows 10. For just a few dollars a month, the service backs up everything on your PC, as well as any external drives you connect, to the Backblaze cloud. You don't have to worry about choosing what gets backed up, and there are no limits to your backup size either.*
- ▶ *While it's the only app on this list that doesn't have a free option, backing up is worth paying for. If you ever lost all your files, the app will pay for itself in an instant.*
- ▶ *As an additional backup layer, or for your main backup if you can't afford Backblaze, you should try EaseUS Todo Backup Free. It's an easy-to-use tool for making local backups of your files.*

14. Storage Management: TreeSize Free

- ▶ *Everyone knows the hassle of running low on storage space. That's why one of the other apps you should install on every Windows system is a disk analyzer.*
- ▶ *TreeSize Free is a straightforward way to find out what's taking up space on your computer. Simply open it and tell it which disk to scan, and it will order all the folders on your PC based on how large they are. You can then see the largest files on your computer and take action to delete or move them accordingly.*
- ▶ *Don't waste time trying to manually hunt through folders and find large files—let this essential utility do it for you.*

15. Scripting: AutoHotkey

- ▶ *If you want to automate more on your computer, then AutoHotkey is something you need to download. It's a custom scripting tool that let you define your own commands, making it as useful as whatever you can dream up.*
- ▶ *As just a few examples, you can create quick text expansion, enable automatic typo correction, override certain keyboard keys, and create macros to perform several actions with a few keypresses.*
- ▶ *AutoHotkey can be a little intimidating at first, but once you get the hang of it, it's a powerful tool to have in your kit. See our [guide to getting started with AutoHotkey](#) and [great AutoHotkey scripts to try](#) as an introduction.*

The Top free apps for a Windows 10 PC

- ▶ Itunes
- ▶ Netflix
- ▶ What's App
- ▶ Xbox
- ▶ Icloud
- ▶ Amazon Prime
- ▶ Spotify
- ▶ Tik Tok
- ▶ Facebook
- ▶ Instagram
- ▶ Hulu