

Find Windows 11 specs, features, and computer requirements

Here's an overview of how to find device specification requirements, versions, and languages available for Windows 11.

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System requirements

These are the basic requirements for installing Windows 11 on a PC. If your device does not meet these requirements, you may not be able to install Windows 11 on your device and might want to consider purchasing [a new PC](#). If you are unsure whether your PC meets these requirements, you can check with your PC Original Equipment Manufacturer (OEM) or, if your device is already running Windows 10, you can use the [PC Health Check app](#) to assess compatibility.

Processor:	1 gigahertz (GHz) or faster with 2 or more cores on a compatible 64-bit processor or System on a Chip (SoC)
RAM:	4 gigabyte (GB)
Storage:	64 GB or larger storage device Note: See below under "More information on storage space to keep Windows 11 up-to-date" for more details.
System firmware:	UEFI, Secure Boot capable
TPM:	Trusted Platform Module (TPM) version 2.0
Graphics card:	Compatible with DirectX 12 or later with WDDM 2.0 driver
Display:	High definition (720p) display that is greater than 9" diagonally, 8 bits per color channel
Internet connection and Microsoft accounts:	<p>Windows 11 Home edition requires internet connectivity and a Microsoft account to complete device setup on first use.</p> <p>Switching a device out of Windows 11 Home in S mode also requires internet connectivity. Learn more about S mode here.</p> <p>For all Windows 11 editions, internet access is required to perform updates and to download and take advantage of some features. A Microsoft account is required for some features.</p>

There may be additional requirements over time for updates, as well as requirements to turn on [specific features](#) within the OS.

Feature-specific requirements for Windows 11

Some features in Windows 11 have increased requirements beyond those listed above in the minimum requirements section. Below are some additional details regarding requirements for key features:

- **5G support** requires 5G capable modem.
- **Auto HDR** requires an HDR monitor.
- **BitLocker to Go** requires a USB flash drive (available in Windows Pro and above editions).
- **Client Hyper-V** requires a processor with second level address translation (SLAT) capabilities (available in Windows Pro and above editions).
- **Cortana** requires a microphone and speaker and is currently available on Windows 11 for Australia, Brazil, Canada, China, France, Germany, India, Italy, Japan, Mexico, Spain, United Kingdom, and United States.
- **DirectStorage** requires an NVMe SSD to store and run games that use the "Standard NVM Express Controller" driver and a DirectX12 GPU with Shader Model 6.0 support.
- **DirectX 12 Ultimate** is available with supported games and graphics chips.
- **Presence** requires sensor that can detect human distance from device or intent to interact with device.
- **Intelligent Video Conferencing** requires video camera, microphone, and speaker (audio output).
- **Multiple Voice Assistant (MVA)** requires a microphone and speaker.
- **Snap** three-column layouts require a screen that is 1920 effective pixels or greater in width.
- **Mute/Unmute from Taskbar** requires video camera, microphone, and speaker (audio output). App must be compatible with feature to enable global mute/unmute.
- **Spatial Sound** requires supporting hardware and software.
- **Teams** requires video camera, microphone, and speaker (audio output).
- **Touch** requires a screen or monitor that supports multi-touch.
- **Two-factor Authentication** requires use of PIN, biometric (fingerprint reader or illuminated infrared camera), or a phone with Wi-Fi or Bluetooth capabilities.
- **Voice Typing** requires a PC with a microphone.
- **Wake on Voice** requires Modern Standby power model and microphone.
- **Wi-Fi 6E** requires new WLAN IHV hardware and driver and a Wi-Fi 6E capable AP/router.
- **Windows Hello** requires a camera configured for near infrared (IR) imaging or fingerprint reader for biometric authentication. Devices without biometric sensors can use Windows Hello with a PIN or portable Microsoft compatible security key.
- **Windows Projection** requires a display adapter which supports Windows Display Driver Model (WDDM) 2.0 and a Wi-Fi adapter that supports Wi-Fi Direct.
- **Xbox (app)** requires an Xbox Live account, which is not available in all regions. See [Xbox Live Countries and Regions](#) for the most up-to-date information on availability. Some features in the Xbox app will require an active Xbox Game Pass subscription. [Learn more about the pass.](#)

Feature deprecations and removals

When upgrading to Windows 11 from Windows 10 or when installing an update to Windows 11, some features may be deprecated or removed. Please see below for information regarding some of the key features impacted:

- **Cortana** will no longer be included in the first boot experience or pinned to the Taskbar.

- **Desktop wallpaper** cannot be roamed to or from device when signed in with a Microsoft account.
- **Internet Explorer** is disabled. [Microsoft Edge](#) is the recommended replacement and includes IE Mode which may be useful in certain scenarios.
- **Math Input Panel** is removed. Math Recognizer will install on demand and includes the math input control and recognizer. Math inking in apps like OneNote are not impacted by this change.
- **News & Interests** has evolved. New functionality has been added which can be found by clicking the Widgets icon on the Taskbar.
- **Quick Status** from the Lockscreen and associated settings are removed.
- **S Mode** is only available now for Windows 11 Home edition.
- **Snipping Tool** continues to be available but the old design and functionality in the Windows 10 version has been replaced with those of the app previously known as Snip & Sketch.
- **Start** is significantly changed in Windows 11 including the following key deprecations and removals:
 - Named groups and folders of apps are no longer supported and the layout is not currently resizable.
 - Pinned apps and sites will not migrate when upgrading from Windows 10.
 - Live Tiles are no longer available. For glanceable, dynamic content, see the new Widgets feature.
- **Tablet Mode** is removed and new functionality and capability is included for keyboard attach and detach postures.
- **Taskbar** functionality is changed including:
 - People is no longer present on the Taskbar.
 - Some icons may no longer appear in the System Tray (systray) for upgraded devices including previous customizations.
 - Alignment to the bottom of the screen is the only location allowed.
 - Apps can no longer customize areas of the Taskbar.
- **Timeline** is removed. Some similar functionality is available in Microsoft Edge.
- **Touch Keyboard** will no longer dock and undock keyboard layouts on screen sizes 18 inches and larger.
- **Wallet** is removed.

The following apps will not be removed on upgrade but will no longer be installed on new devices or when clean-installing Windows 11. They are available for download from the Store:

- [3D Viewer](#)
- [OneNote for Windows 10](#)
- [Paint 3D](#)
- [Skype](#)

Keeping Windows 11 up-to-date

As part of the effort to continually improve the Windows experience, software updates and fixes are created and released. These updates are delivered to your device during the device's supported lifecycle.

Ensuring that your device is kept up to date is important for your device security and functionality. With an internet connection, Windows 11 will periodically check for updates so you don't have to (ISP fees might apply). You can check to see if there are any pending or optional updates available for your device by going to **Settings | Update & Security | Windows Update** .

It is important to ensure you have enough free storage space to install updates and you may need to check to see if your hardware is still supported by your Original Equipment Manufacturer (OEM).

Visit the [Lifecycle FAQ for Windows products](#) to learn more about Windows lifecycle and servicing policies.

More information on storage space requirements to keep Windows 11 up-to-date

The size of the Windows operating system that comes with your device and the amount of free storage space needed to download and install Windows updates are highly variable as they depend on a variety of factors. [Visit here to learn why](#). The factors that impact the amount of free space needed to take an update include: the versions of Windows previously installed on the machine; the amount of free storage space available from Windows files to reuse, such as the virtual memory pagefile or hibernation file; which applications are installed on your device; and how those applications store data. When updating, Windows will attempt to free up enough space automatically and to guide you through freeing up even more if the automatic cleanup is not sufficient. You can also take steps on your own to free up space.

Language versions

Windows 11 full localization languages include: Arabic (Saudi Arabia), Bulgarian (Bulgaria), Chinese (PRC), Chinese (Taiwan), Croatian (Croatia), Czech (Czech Republic), Danish (Denmark), Dutch (Netherlands), English (United Kingdom), English (United States), Estonian (Estonia), Finnish (Finland), French (France), French (Canada), German (Germany), Greek (Greece), Hebrew (Israel), Hungarian (Hungary), Italian (Italy), Japanese (Japan), Korean (Korea), Latvian (Latvia), Lithuanian (Lithuania), Norwegian, Bokmål (Norway), Polish (Poland), Portuguese (Brazil), Portuguese (Portugal), Romanian (Romania), Russian (Russia), Serbian (Latin, Serbia), Slovak (Slovakia), Slovenian (Slovenia), Spanish (Spain), Spanish (Mexico), Swedish (Sweden), Thai (Thailand), Turkish (Turkey), Ukrainian (Ukraine).

Additional languages available as [Language Interface Packs](#)