

How To Make A Minecraft Server

Minecraft is a very popular sandbox for many reasons. It is easy to learn and use, allows you to build whatever you want, and it is very creative.

However, the biggest reason Minecraft is so mainstream is because of the ability to play with other people. This is not to confuse with online games such as Call of Duty, where you and your friends can play preloaded levels together. Online Minecraft allows you and your friends to create an entire world from the ground up with nothing holding you back. You need to establish a server so you can play online with friends.

Please note: It is a good idea to get permission from your parents before you create a private server. You should have a parent present to view this tutorial and not download any extra.

What is a Minecraft Server? Things to Consider Before Hosting a Minecraft Server Steps for Creating a Minecraft Server

Enjoy Your Multiplayer Minecraft Server

What is a Minecraft Server?

A Minecraft server allows multiple people to play together in the same Minecraft world. This can be done in different ways so make sure you fully understand your options.

You can rent a server through a third-party, such as Apex Hosting or Hostinger. It does nearly everything for you, but you need to pay a monthly service fee for it. This can be as low as \$5, depending on the service you use.

You can manage a server yourself. This allows you to control the server's operation and saves you money. This article focuses on making your own Minecraft server without using a third-party.

Minecraft also runs personal multiplayer servers, called Realms, just for you and your friends. A Realm allows you to access your Minecraft world online, even when you log out.

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Things to Consider Before Hosting a Minecraft Server

Benefits of Using Hosting Your Own Minecraft Server

- You can have total control over the server at all times. You can get it done as quickly as possible if you need it. There's no need to rely solely on someone else to do the work.
- You can upgrade your computer in any way you wish to improve its performance. Server hosting companies often charge higher prices for higher specs. However, if you have the latest generation processor and the most powerful graphics card your server will be the best.
- It can be fun to setup and learn how to configure networking. You will learn about different network features that are not available elsewhere.

It will not cost you more than what it costs to run your computer. Hosting companies can be expensive, but hosting your server yourself will only cost what it takes to keep the computer running.

Hosting your own Minecraft server can be very rewarding, but it does have a few drawbacks you should understand before attempting it yourself.

To run your server, you will need the appropriate hardware. This includes either a Windows 7 running system or a Mac running MacOS 10.4 or higher. Although it is possible to host your own server using a Chromebook, this tutorial does not cover that.

- You will need an active internet connection as well as access to your router.

Your computer specs will depend on the server you use and how many players there are at any given point. Your server will need more RAM and a faster processor to handle the more players. You can also add mods to your server. If you are only playing vanilla (meaning no mods), then you can get away without much RAM.), but as soon as you start adding those awesome mods you'll want to double, triple, or even quadruple the amount of RAM dedicated to your server.

- Since you will have to run the server from a computer, you'll want a decent internet connection that is hardwired to your PC that can handle everyone playing simultaneously. No one wants to log onto a Minecraft server only to lag and get booted every 15 minutes for a modem restart. Note that although a computer is needed to run the server, your friends can play on your server from any platform as long as they are using the exact same Minecraft

edition that you are running. If you run a Minecraft Java Edition 1.6.4 server, your friends will need Minecraft Java Edition 1.6.4 installed on their devices.

- It's completely your responsibility on how this server is run. It's your responsibility to fix any problems that may arise. You can rely on players to fix any bugs or issues they have. If there are disputes among players, you will often be the one to handle them.

It's more than downloading a program and turning on the computer. You will need to configure the network and router, learn more about port-forwarding, as well as use the command line to edit configuration files.

Cyber attacks on your computer and private data can result from the above requirements. This could expose your network to security risks like DDoS attacks. If your IP address falls in the wrong hands someone can find sensitive data about you, such as your address! Please be cautious if you choose this route. Also, ensure you follow the next steps safely. If you want to own your server but don't want it to be hosted by you, please see our article on Apex server hosting.

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Steps for Creating a Minecraft Server

1. Get Started with Java: Download the latest version

Still here? Great! Let's begin making our own Minecraft server.

Start by creating a folder to store all our downloads. You can put this anywhere you'd like, but I find it easiest to create a new folder on your desktop.

In our examples, we will be placing everything inside a folder called "My Awesome Server" directly on the desktop. Click on any empty space on your desktop to create a folder. Then you can rename the folder to something of your choosing.

Once you have created your folder, it is time to download the files needed to host your server. Let's get started by making sure Java is installed on your computer. You can do that by clicking [here](https://www.java.com/en/download/) or going to <https://www.java.com/en/download/>. The link will take to the correct download regardless of whether you're using a Mac or a computer.

Add the installer in the folder you created in step 1. Once you download the installer, double-click it and follow along with the prompts.

2. Download the Server.jar File

After you have downloaded the latest Java version, you will need to download the server.jar file.

You may notice a different version number when you follow the tutorial images/gifs. That's fine, the steps should be identical.

You might get a warning message from your computer that this file may contain harmful components. This is a normal warning for any file in the .jar format. These should be a warning if you don't know the source. That being said, I think we can trust Minecraft on this one.

If you're given the option, save this file into the "My Awesome Server" folder. You can copy and paste the file or drag it into the folder after it is done.

3. Create Your Server Configuration Files

Once you have found your server.jar file within your "My Awesome Server", click it twice or right-click > to create your configuration files.

To prevent your server from crashing immediately, you will need to agree to an EULA agreement (End User License Agreement). Open up the EULA file (it may say eula.txt depending on your machine) and change eula=false to eula=true. Then go to File > Save or press ctrl+s to save this document.

4. This that or the other Run Your Server

Double-click your server.jar again. This will create a few new files and allow your server to start.

If your goal was to make your own Minecraft server to play with friends on the same internet connection as you then you have reached the end. Congratulations!

If you have friends connected to the same internet, log on to Minecraft and click the Multiplayer tab. They will be able find the server you just created. Both of you must be using the exact same version Minecraft.

However, if you wish to play with your friends using an internet connection other than yours (such as a home), then you still have some work to do. In that case, continue on....

5. Port forwarding

Warning: This section is the most difficult. It can also pose security risks. You should always have a parent accompany you to this step.

Port forwarding allows your friends to connect directly to your server from other internet connections than you. This step will differ depending on the router you use.

I will outline the steps required to set up my Xfinity router for port forwarding. However, you will need to look into your router and follow its instructions.

Navigating to the Port Forwarding section at Xfinity's website is the first thing I did. This was what I found by searching "How to Port Forward my Xfinity Router", so I recommend a similar search, but with your router's specific name.

The next step for me had common configurations to use, including Minecraft, so I went ahead and chose that. If you don't have this option, it is important to know that port number 25565 can be used for Minecraft.

Any other port number won't work. Note that I have blocked my IP Address. This is the part that you want protected from anyone you don't trust or know. Depending upon your router, they may reserve a customized IP address for the user (Xfinity did this to me). If that's the case, this is the IP Address you will provide to your friends. If they do not reserve one for you, you will have to use your own IP address.

Once you have completed Port Forwarding, your friends should be able to log into Minecraft and click the Add Server button. You can name the server anything you like (it does not need to match your name). Then, enter your IP address. If you don't know your IP number, you can use Google to search "What's my IP Address" and it should be the first result.

When adding a server to an IP address, you may or not need the 25565 at the end. If it does not recognize the server, we recommend that you try it without it.

6. Configuring Server Properties

Now that you have a server running, it's time for you to make any changes you like. In the "My Awesome Server", folder, you will see a file called server.properties. Your computer won't know how the file can be opened right now. But if you right click it and select Open with you should see a list of options.

You can open this in any text editor of your choosing, but Notepad works just fine if you aren't attached to another one. When you open it up you'll see a long list of different server properties. You can edit each one to your liking.

Here is a list of all properties and their meanings. But let's start with the most common.

difficulty - this takes either a string or integer property that sets the difficulty level of your server. Integer values can be 0, 1, 2 or 3. String values represent peaceful, normal, easy, or hard. hardcore - This is a boolean that indicates whether or not your players will be handled if they die in a game. If the value is true then players are automatically put into spectator mode when they die. level-seed – This is a default value and will automatically generate a seed for your server. You can find a seed online and copy it here.

max-players - this sets the maximum number of players allowed on your server at one time. This is useful if your computer struggles to run when there are many users logged on simultaneously.

motd - this sets a Message Of The Day for all players to see when they log in on your server. It can be helpful to give useful information to everyone at the same time.

pvp is a value in booleans that allows players to kill each others when it is true.

Here's how my server.properties looks when I open it using Windows Notepad.

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How to Play Minecraft With Friends

Enjoy Your Multiplayer Minecraft Server

There you go! You are now running your own Minecraft server and you can have all your friends join it as you wish.

There are many things you could do with your own server. We suggest starting small before you get too crazy.

Minecraft can quickly consume resources that most people don't have. Your computer may struggle to handle all you ask it to. Don't share your IP address publically with anyone you don't know or trust.

If you found the article helpful, please let us know by posting a Discord message.

We'd also love for you to come and hang out with us on our Minecraft server! Our subdomain (server address) is `mc.codewizardshq.com`. First, you will have to verify your information using Discord by sending a DM to CWHQ Minecraft Server#9605 where your pin code will be provided.