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3D DESIGN PROJECT: 3D PRINTED MINECRAFT CREATIONS WITH PRINTCRAFT



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What you need to know:

Basic understanding of a computer

What you need:

- Computer
- A Minecraft account
- An Internet connection

With this tutorial, you will learn how to build something in Minecraft that you can 3D print in real life. This can be done by logging on to a Minecraft server called Printcraft, building your object on that server, and then downloading the 3D printable file. This works best on a computer with a mouse (rather than a touchpad).

1. Download Minecraft (minecraft.exe for Windows, minecraft.dmg for Mac) here: <https://minecraft.net/download>

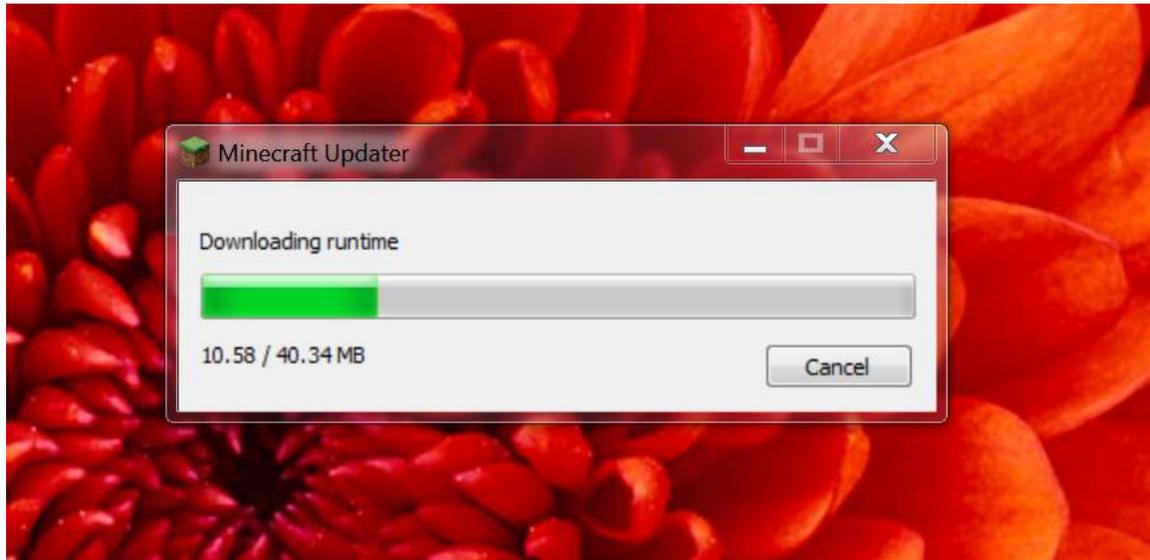
Minecraft for Windows

Download and run [Minecraft.msi](#). This will install Minecraft and create a shortcut in your start menu. If you'd like a version without an installer, you may use [Minecraft.exe](#) instead. You do not need Java installed to run either of these.

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2. Launch Minecraft



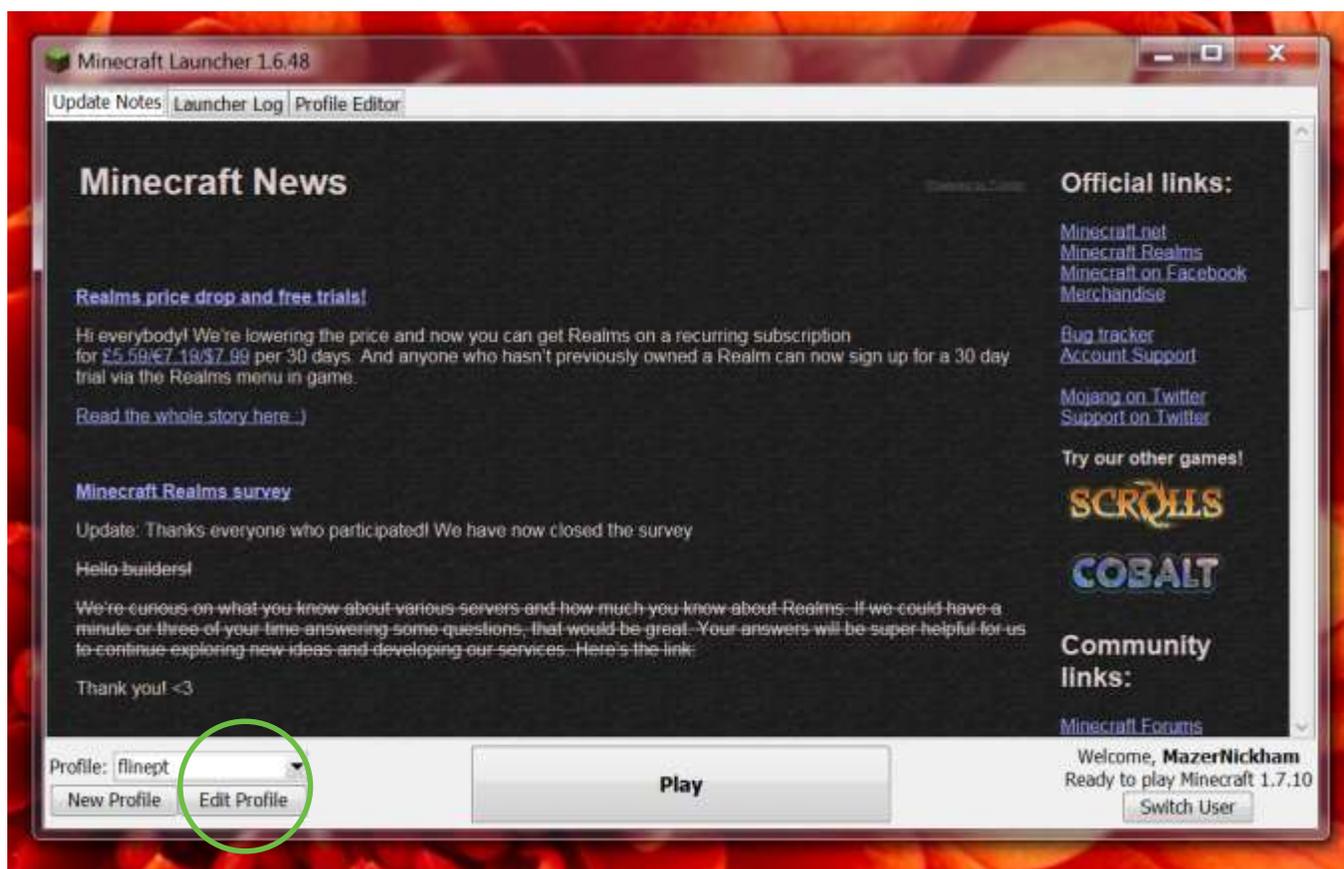
3. Login with your Minecraft account



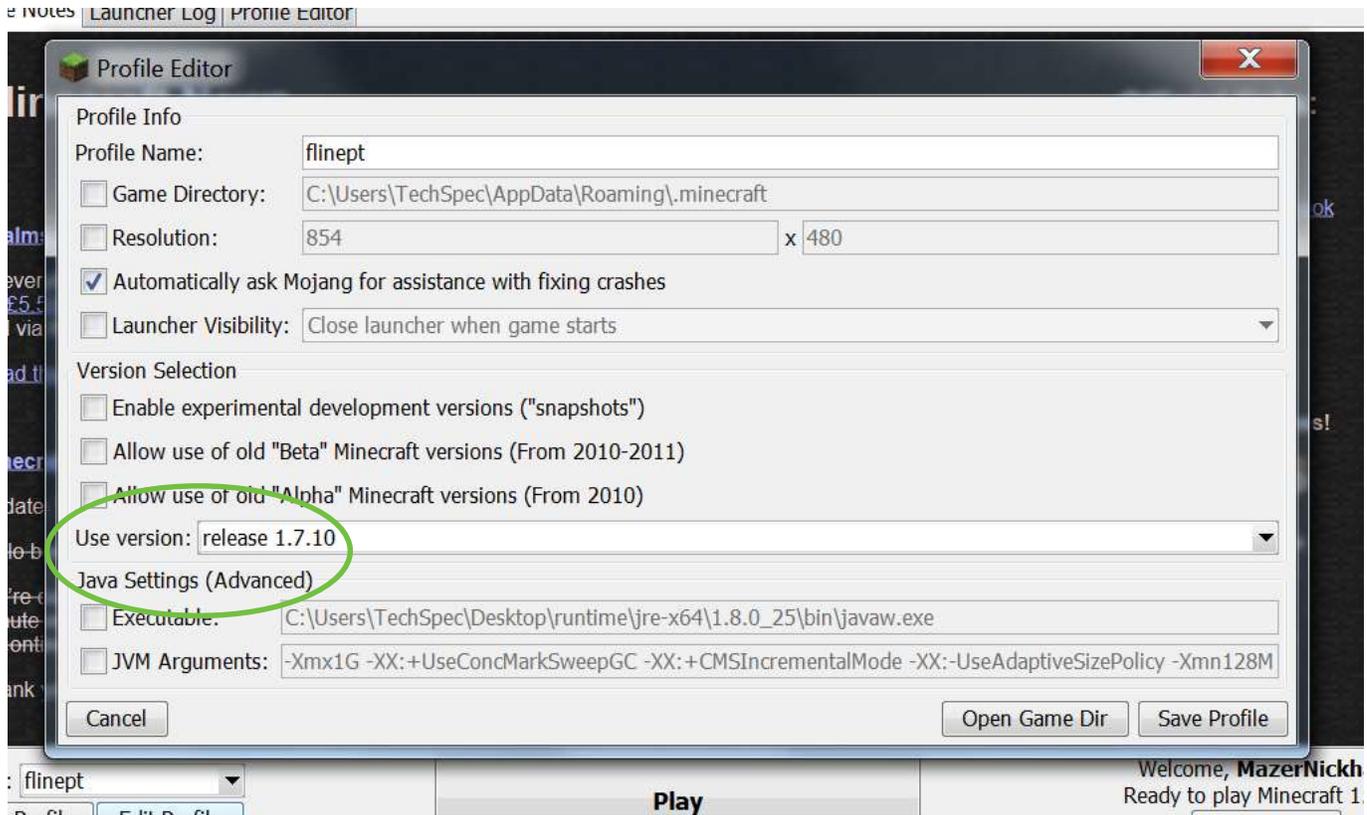
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4. **To play on Printcraft's server, you will need to play an older version of Minecraft. To do this, on the launcher screen (it says "Minecraft News" at the top), click "Edit Profile" and in the "Use Version" drop-down menu, select "release 1.7.10." Click "Save Profile."**



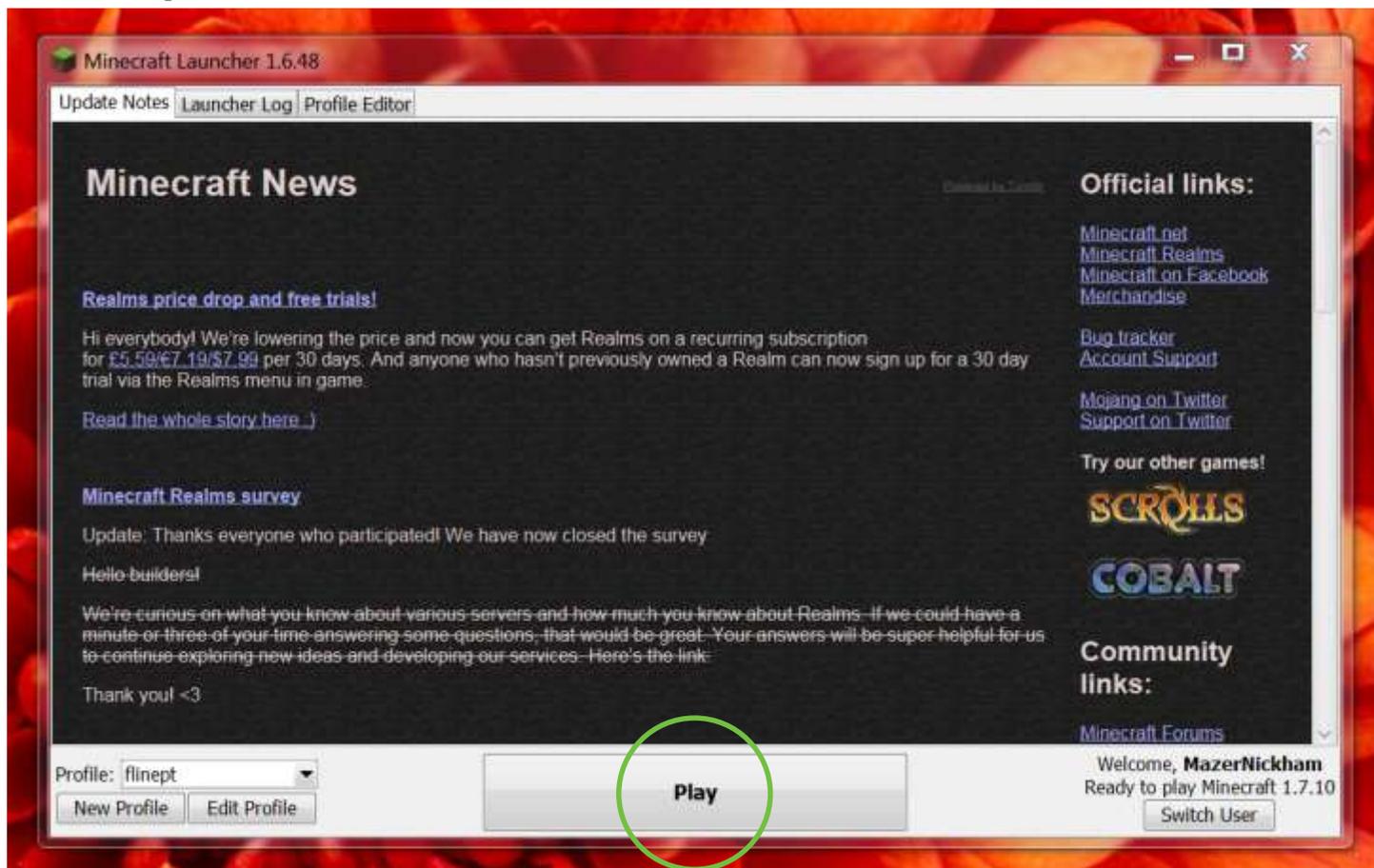
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5. Click "Play."



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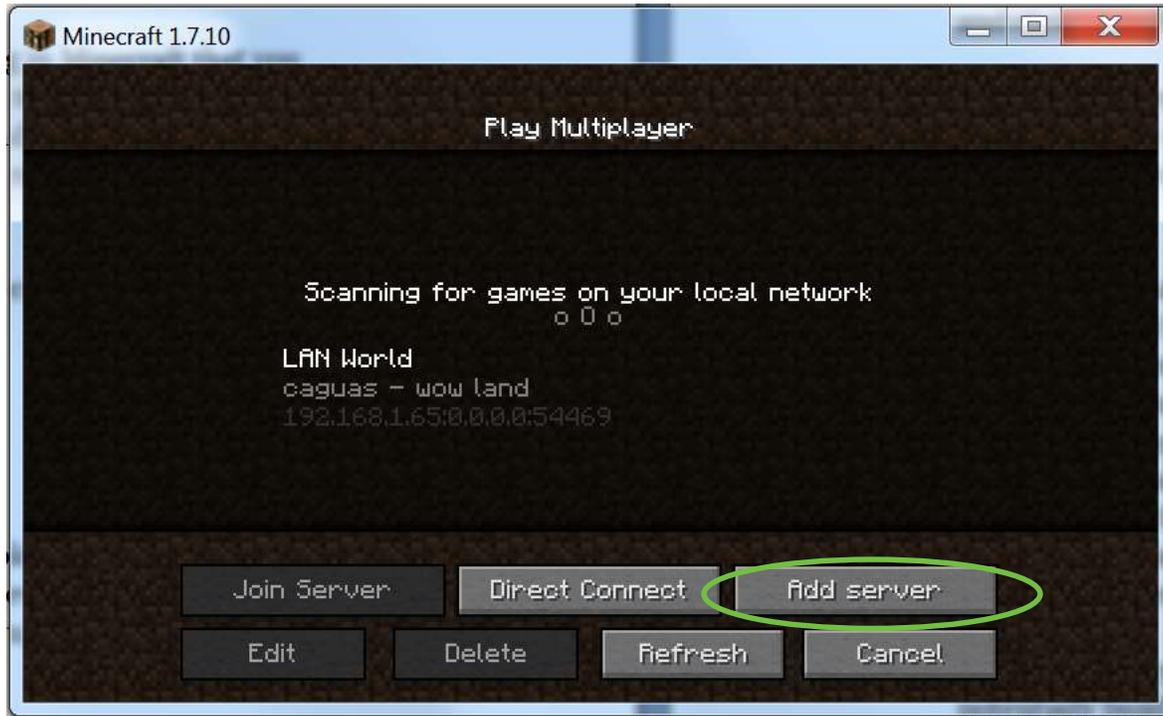
6. Once the main Minecraft screen loads (it may take several minutes), click **"Multiplayer."**



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7. Click "Add Server."



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8. You will be prompted to enter a server name and server address. Printcraft has two servers you can use – **one for the US and one for Europe. It doesn't matter which one you use, but if you can't get one to work, try the other one. In my experience, the Europe server works more often than the US server.**

EU Minecraft Server - eu1.printcraft.org

US Minecraft Server - us1.printcraft.org

You can enter any name you want into the “Server Name” field – it is just for your reference. In the “Server Address” field, type in “eu1.printcraft.org” or “us1.printcraft.org”. Don't worry about the “Server Resource Packs” option when adding a server. Click “Done.”



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9. Once the server connection is established, click on the server you wish to join, **and click “Join Server.”**



Note: When you first enter the Printcraft server, you might find yourself in a building. Go towards any of the exists (north, south, east, or west). Sometimes the game glitches when you exit the building. Just keep walking and eventually it will stop glitching.

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10. Find a large square plot of land with nothing being built inside of it yet (this will **be easiest if you're flying – the controls for flying are listed below in “Basic commands”**), and **start building (the controls for building are listed below)**. If you start building and you get the message **“You don't have permission for this area”** then the plot has been claimed by another user and you will not be able to build there (You can also check if a plot has been claimed by looking at the control panel structure for the plot. On the sign that gives the **plot's number, if an owner is mentioned underneath the plot's number, then that plot has been claimed**). Just find another plot that is unclaimed and empty.



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11. **Press E to view your inventory and choose up to nine blocks you'd like to** potentially build with. Some blocks cannot be used in Printcraft because they cannot be 3D printed. Most cube-shaped, stair, and slab blocks can be used. Choose the blocks by clicking on a block to select it, and then clicking on one of the nine slots near the bottom to place the block in that slot. Press E again to exit your inventory, and select a block to build with by pressing the number key (1-9) which corresponds to its slot.



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12. Build the item you would like to 3D print (the building commands are listed below). Try making a house, a nametag, or a statue!



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13. When you are done building, go to the control panel closest to your workspace (in the game, at the edge of your square plot).



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14. **Right click on the small gray rectangular button above “Print.”** In a few seconds, a **hyperlink** will appear. To click on it, press “/” and then you’ll be able to click on the hyperlink.



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15. When it asks “Are you sure you want to open the following website?” click “Yes.”



Basic commands

Move forward, left, backward, right - WASD

Move viewfinder - Move mouse

Jump - Space

Fly - Rapid double space to start flying, hold space to fly higher, rapid double space to land

Run - Rapid double W

Open inventory - E (press E again to exit inventory)

Choose a different building block - Number keys

Place block - Right click

Destroy block - Left click