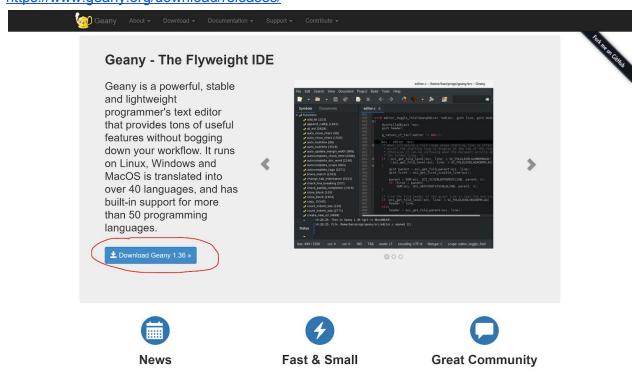
Geany and MinGW installation instructions (for Windows 10)

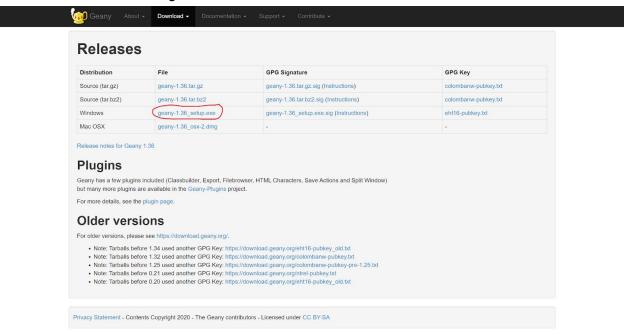
Geany Setup:

First we will set up Geany, then afterwards we will install and set up the MinGW compiler. Here are the steps for setting up Geany on your Windows 10 device:

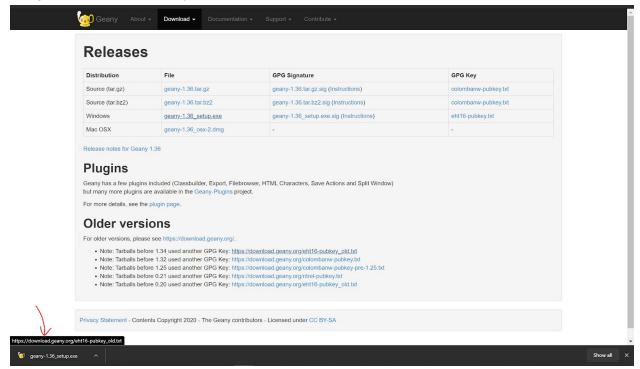
- 1. Go to the Geany homepage by following this link: https://www.geany.org/
- Navigate to the downloads page by clicking the blue "Download Geany 1.36" button on the website, or alternatively by following this link: https://www.geany.org/download/releases/



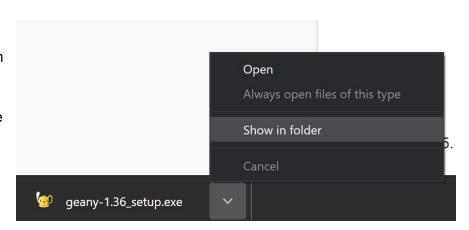
3. From there, double click on the Windows "geany-1.36_setup.exe" file under the "Releases" column heading and beside the "Windows" row.



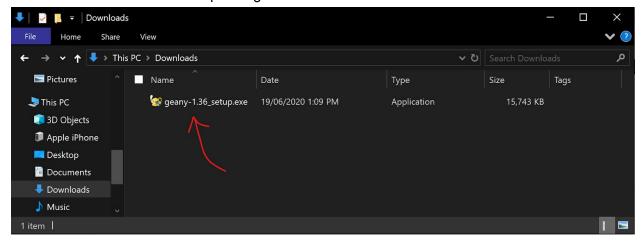
4. After you click that, a download should start. You will see it along the bottom of your Google Chrome browser if you use Chrome.



Once the download is complete (when there is no "seconds remaining" on your download bar), click on the up arrow next to the download and click the option "Show in folder" - this will take you to your downloads folder on your computer.



If you are using a different web browser or you cannot see it, just navigate to your downloads folder on your computer, using File Explorer and go to "This PC", then find your "Downloads" folder. If the Geany setup download isn't there, try repeating steps 1 to 4 in order to download the setup file again.

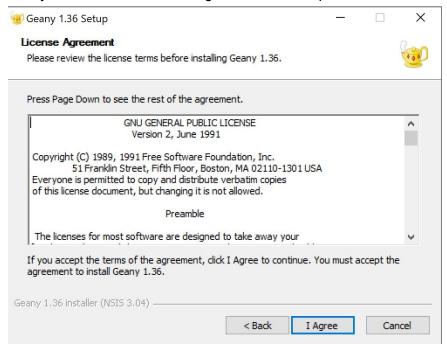


- 5. Now that we have downloaded the Geany setup application, we need to run it in order to set up Geany on our computer. Double click on the "geany-1.36_setup.exe" file in your Downloads folder (see above screenshot) to start running the setup application.
- 6. You might get a message from your computer along the lines of "Do you want to allow this app to make changes to your device?" You should get two options: Yes, or No. Select "Yes" by clicking on the Yes button to allow the installation process to continue.

7. Now you should get a pop-up which will say "Welcome to Geany 1.36 Setup" and will have two buttons along the bottom of the window: "Next >" and "Cancel".

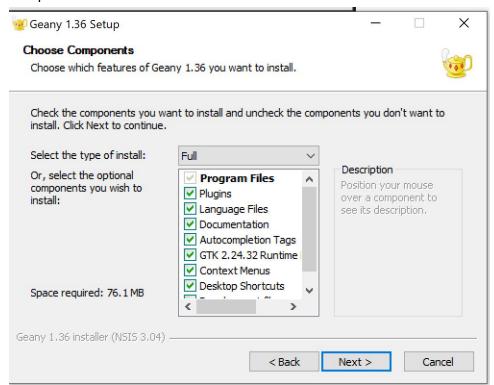


- 8. Click the "Next >" button to continue the setup process
- 9. Next you will have a License Agreement come up



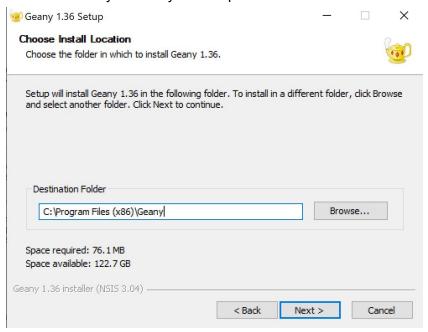
10. Make sure you read through and agree with all of the terms on the agreement before you select the "I Agree" button to continue the Geany installation. If you do not agree with the terms, you cannot use Geany.

11. Once you click the "I Agree" button, you should see a pop-up asking you to "Choose Components".

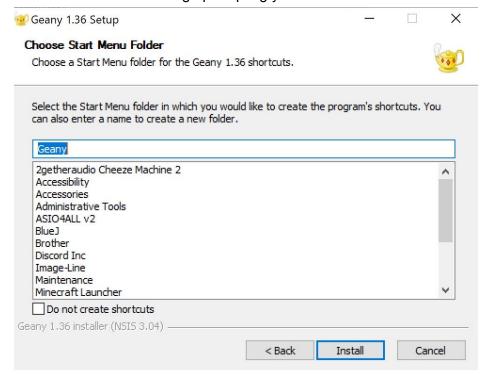


12. The Geany setup application will have automatically ticked the green boxes for you, which dictate what parts of Geany you will be installing. If you have none of the boxes ticked by default, manually tick the ones we want to install (by clicking the little squares), which is all of them but the last one called "Development files". We do not need this part of the download for our project. Once the boxes are ticked, click the "Next >" button to continue.

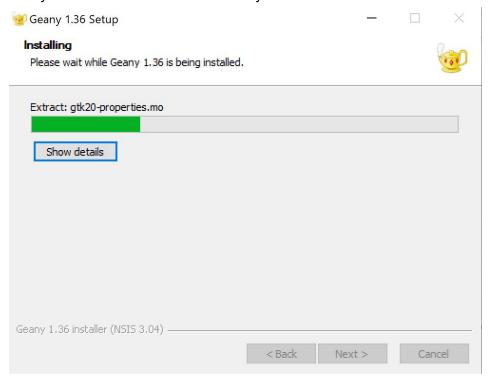
13. From there you will see a message that will ask you to choose where you would like to install the Geany files on your computer.



- 14. By default, the Geany setup will select your C: drive on your computer inside your "Program Files" for the destination folder. I would recommend just allowing the files to be downloaded there, to the default location, it makes finding the files a lot easier later. However, if you do wish to change the destination folder, you can click the "Browse..." button on the screen and select a different folder for the Geany files.
- 15. You will then see a message prompting you to "Choose Start Menu Folder"

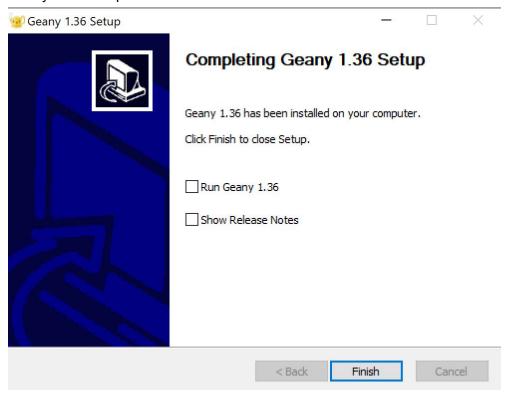


- 16. It is asking you to select a folder in your Start Menu on your computer for the Geany shortcut to be placed. Again, I would recommend just going with the default option they have given us, which is creating a new folder called "Geany" (typed for you already by default as you can see in the screenshot above) for the Geany shortcut on the Start Menu. Now click the "Install" button on the bottom right corner of the prompt to continue.
- 17. Now you will see all the files install on your device:



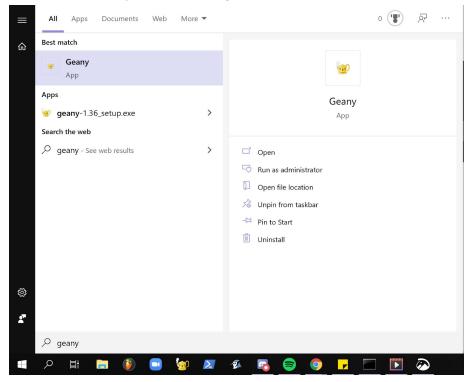
18. During this process, you do not need to do anything, you can just sit back and watch the progress on the installation, measured by the green bar on the Geany 1.36 Setup pop-up. This part shouldn't take too long, but if it does take longer than a minute, please just be patient. If something goes wrong or you accidentally close it, abort the process and repeat steps 5 to 18.

19. Once the files have all been installed, you will see a message that says "Completing Geany 1.36 Setup".



- 20. Leave both boxes unticked and select the "Finish" button to finalise the installation process. This will close the Geany 1.36 Setup program which signals the end of the process. Now we can double check that Geany has actually been set up properly by running it!
- 21. Click the Windows logo on the very bottom left-hand corner of your computer's screen to open the Start Menu.

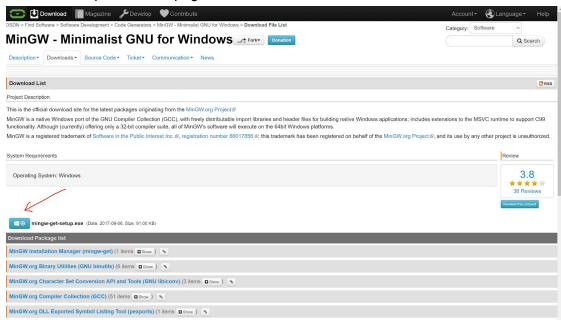
22. Now, without clicking anything else, type "geany" using your computer's keyboard. You should immediately see something like this:



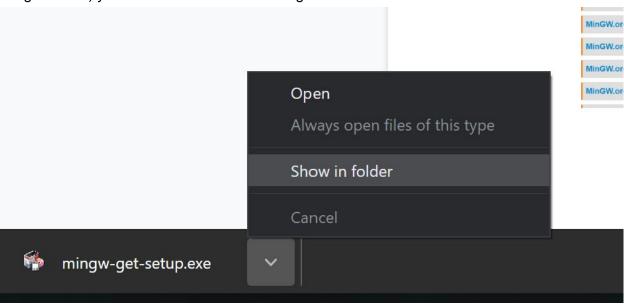
23. Double click the Geany App underneath the "Best match" heading. This will launch Geany with a blank file. You can close Geany now if you wish, by clicking the red "X" at the top right-hand side of the Geany program. Now we can move on to installing MinGW, our compiler we will use with Geany.

MinGW Setup:

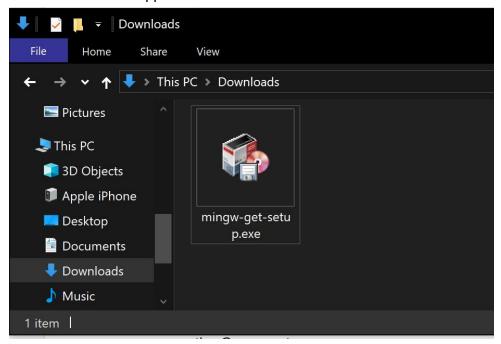
 Follow this link to start the installation of MinGW: https://osdn.net/projects/mingw/releases/
 2. This link will open the webpage for the MinGW download, which will look like this:



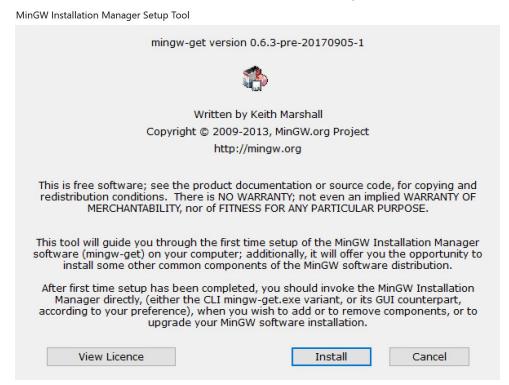
- 3. Click the blue Windows button (which is about halfway down the page). Next to the button it will say "mingw-get-setup.exe", which is the file we want to be installing.
- 4. Once you click the blue button download button, the download will start and (if you are using Chrome) you will see the download along the bottom of the browser:



Once the download is done, click on the download and select "Show in folder" to show the download in your Downloads folder on your computer, just like we did in Step 4 of the Geany setup. 6. Now, in your Downloads folder on your PC, double click the "mingw-get-setup.exe" to start the installation application.

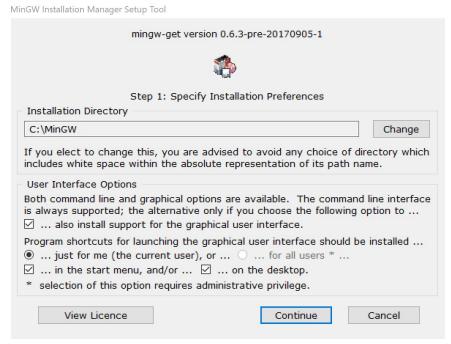


7. Once you double click the downloaded .exe file, the application to install mingw will launch. When it does, select the "*Install*" button along the bottom of the window.

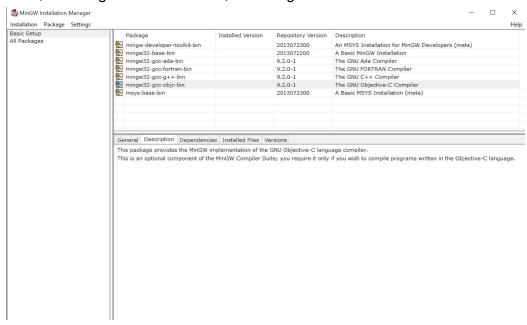


8. Once you click "Install" the installation program will prompt you to specify your installation preferences, including the file path of the folder you want to download the files for MinGW to. For all of the preferences, leave them how they are by default and

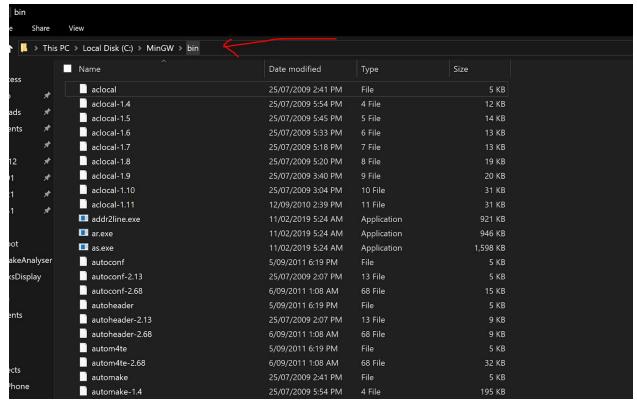
click the "Continue" button to move on.



- 9. Once you click that, the installation/download will begin. This shouldn't take too long. Once it is complete, select "Continue" to move on.
- 10. Next you will see a screen which has a list of 'packages' to install. This section of the installation process will let you pick and choose which files you want to install from a list of all possible files to install. In this case, we will just mark all of these files for installation. You can mark files for installation by right clicking each file, and selecting "mark for installation" on the dropdown menu. This will change the file's checkbox from blank, to having a small arrow in it, indicating that the file is marked for installation.

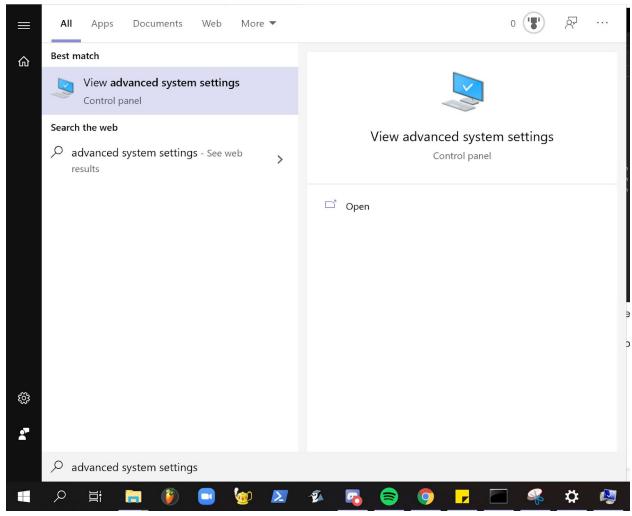


- 11. Once all of the packages are marked for installation, go to the top left-hand side of the MinGW Installation Manager window and click the heading called "Installation" (which has "Package" and "Settings next to it").
- 12. Select / click the third option down "Apply changes". You will then get a prompt which will ask: "Okay to proceed?". Click the "Apply" button to proceed and let the program extract / install the selected files.
- 13. Once it is complete close all the MinGW Installation Manager windows.
- 14. Now we just need to set up our environment variables so that MinGW can work with Geany.
- 15. First of all, we want to go to File Explorer and go to where our MinGW files were installed, which will be in our C: drive.
- 16. Once you are in your C: drive, locate the "MinGW" folder.
- 17. Then double click the folder in the MinGW folder called "bin"
- 18. Once you are in the "bin folder", copy the file path by right clicking the file path at the top of the File Explorer window, and selecting "Copy address" option. This will copy the file path for you. (Note: the file path should be "C:\MinGW\bin" if you have installed the MinGW files directly into your C: drive, as recommended)



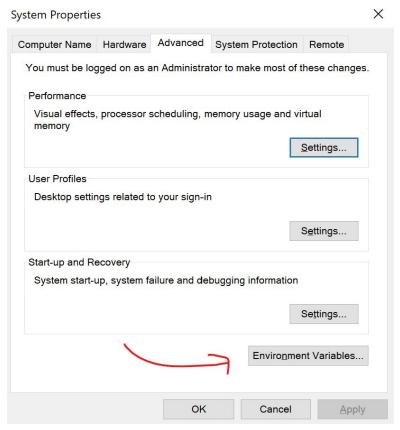
- 19. Now that we have the correct file path to the MinGW bin folder, we can set up our system / environment variables.
- 20. Click on the windows logo on the very bottom left-hand side of your computer screen, and type "advanced system settings"

21. You should get a result called "view advanced system settings". Press the "Enter" key on your computer's keyboard to select this option.



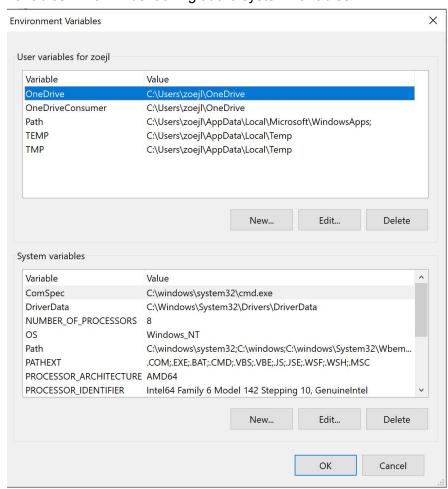
22. This will take you to a menu window called "System Properties". On this menu, there will be a button near the bottom right of the pop-up menu called "Environment Variables…"

23. Click this button to go to the Environment Variables on your device.



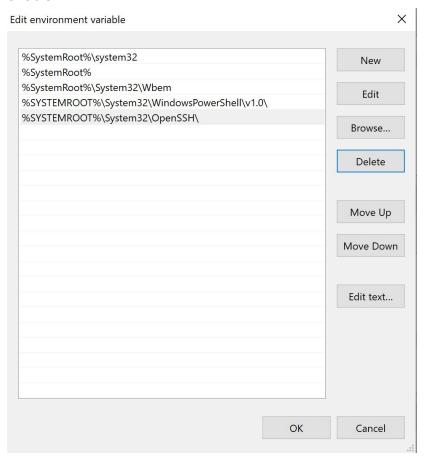
24. You should then come across a menu pop-up called "Environment Variables" along the top of the pop-up, which will have two main sections: "User variables", and "System

Variables". We will be looking at the system variables.



25. Double click on the variable called "Path" in the list of System Variables.

26. You will then see yet another pop-up menu. This one will be called "Edit environment variable".



- 27. You then want to click the button on the top right called "New".
- 28. Paste the MinGW bin file path into the text box to create a new Environment Variable for MinGW. Hint: you can paste by clicking on the text box underneath the other variables, and by pressing Ctrl + V on your keyboard (hold the Ctrl button and press the V key).

You will then see the file path "C:\MinGW\bin" in the list of Environment variables.

29. Press the "OK" button on the bottom right of the window, and again on the previous window, and press "OK" one last time on the last open window to close all the windows.

OK

Cancel

- 30. Now MinGW is set up, we will check that it is working correctly.
- 31. Open Command Line or Windows PowerShell and type "g++ --version" into the command line and press "Enter" on your keyboard. You should then see the current version of MinGW (that you just installed). We now know that MinGW is correctly installed and will work as our compiler for Geany for this project. If you do not see this on your command line, you will not have installed MinGW correctly. Repeat steps 1 31 if this is the case.

```
Command Prompt

Microsoft Windows [Version 10.0.17763.1282]

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C:\Users\zoejl>g++ --version
g++ (MinGW.org GCC Build-20200227-1) 9.2.0

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This is free software; see the source for copying conditions. There is NO warranty; not even for MERCHANTABILITY or FITNESS FOR A PARTICULAR PURPOSE.

C:\Users\zoejl>_
```