PYTHON, WINDOWS

# How to get Portable Python 3.11 on Windows 11

By CodeFAQ June 12, 2020 2 Comments

Installing a Python on Windows 11 requires a bunch of dependencies from Linux and some functions might not work if not properly installed. That is why a portable Python that works 100% is ideal for installing on the Windows environment.

What's good news is Python has its own embedded version that can be use as a third party module for other programs that doesn't require any dependency. Installing a module using pip is also possible with our step by step guide.

## Download Python Embedded

The latest version of embedded python is currently at version 3.11.4. You can download the embedded version below:

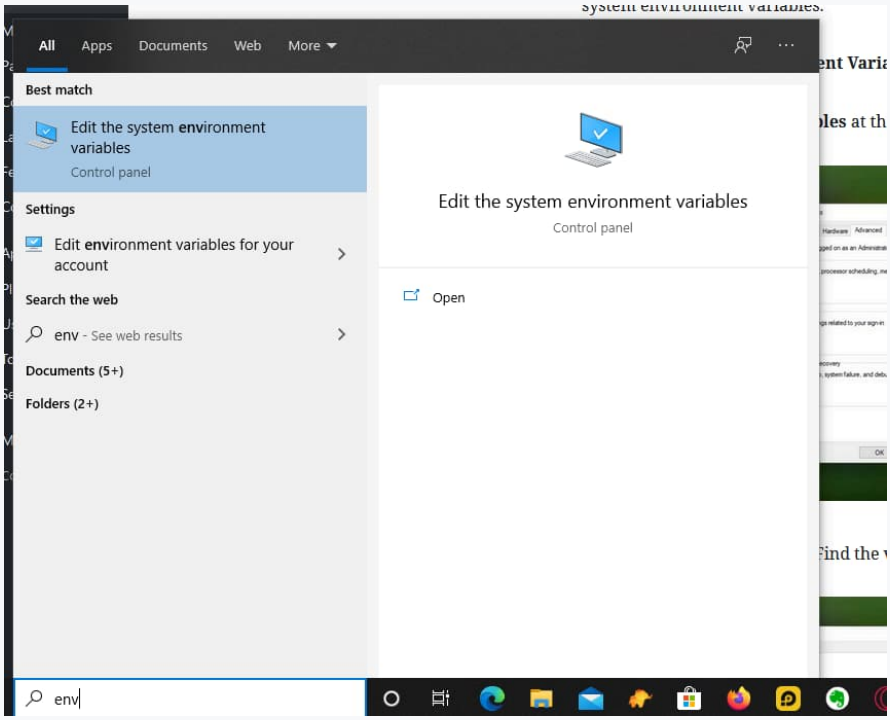
- Python 3.11.4 Embedded (10.3 MB): https://www.python.org/ftp/python/3.11.4/python-3.11.4-embed-amd64.zip

## How to Install it on Windows

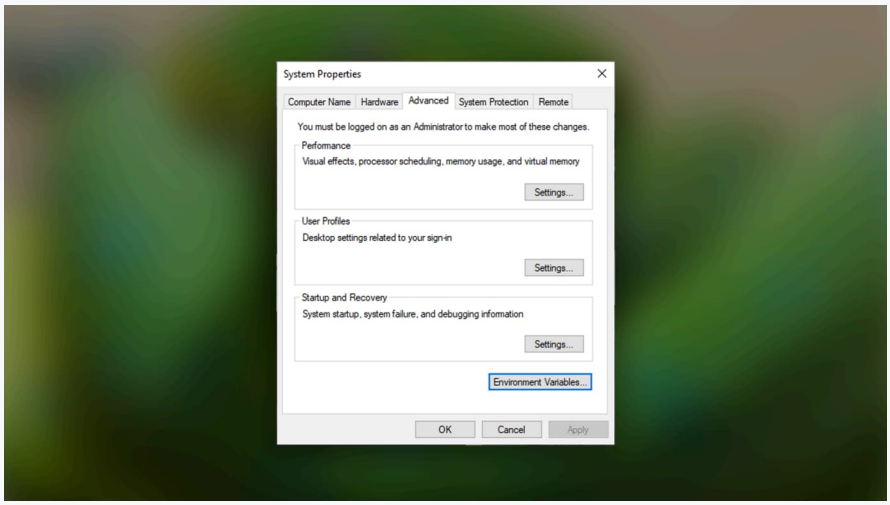
To install it on your windows system, you just have to extract it on the folder that you want. For example, we extracted the files at **C:\python3**

From here you can now use the python, but if you want the python available on CMD command when you call it. We can just add it on the system environment variables.

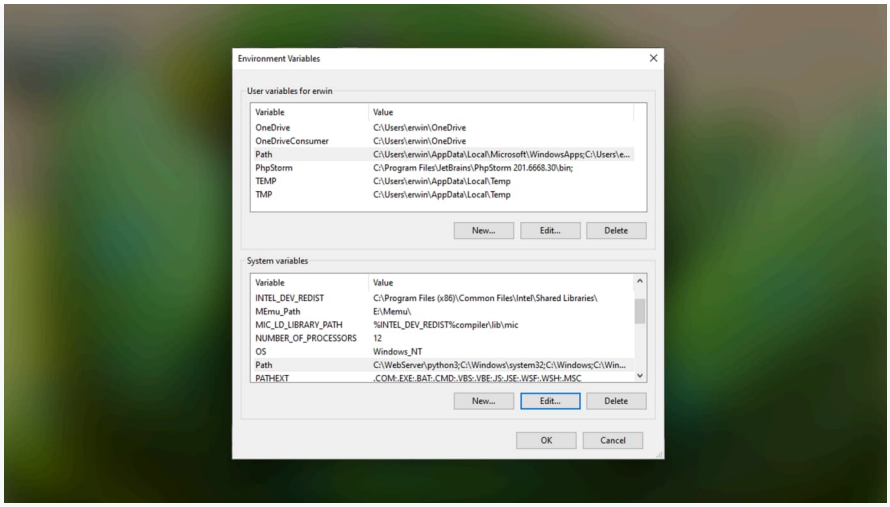
Search in Cortana "**Environment Variables**". Then open it.




Click the **Environment Variables** at the bottom of Advanced tab.



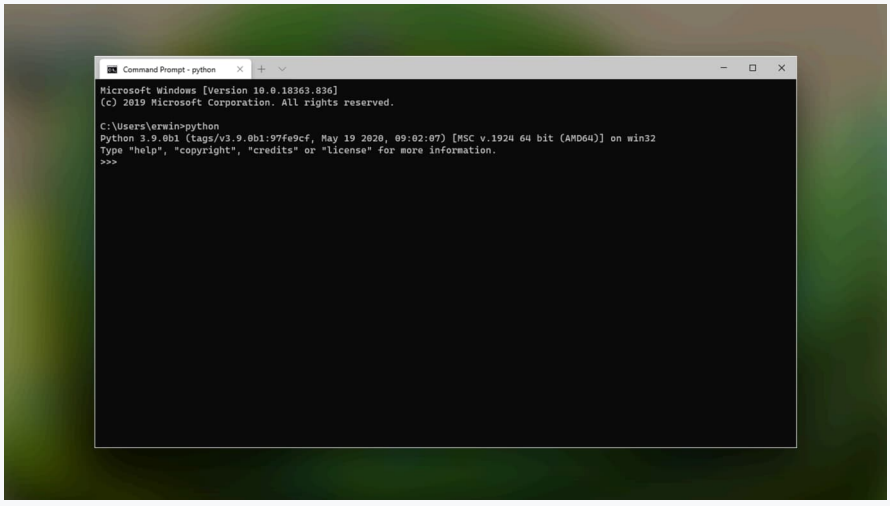

Now, at the System variables. Find the variable **Path** and click **Edit...**.




Then click Browse.. then find the folder of the Python directory you just extracted. In our example, its **C:\python3**. Then hit **OK** to all windows.

After that, open up a terminal and you can now call python straight from the command prompt.

```
python
```

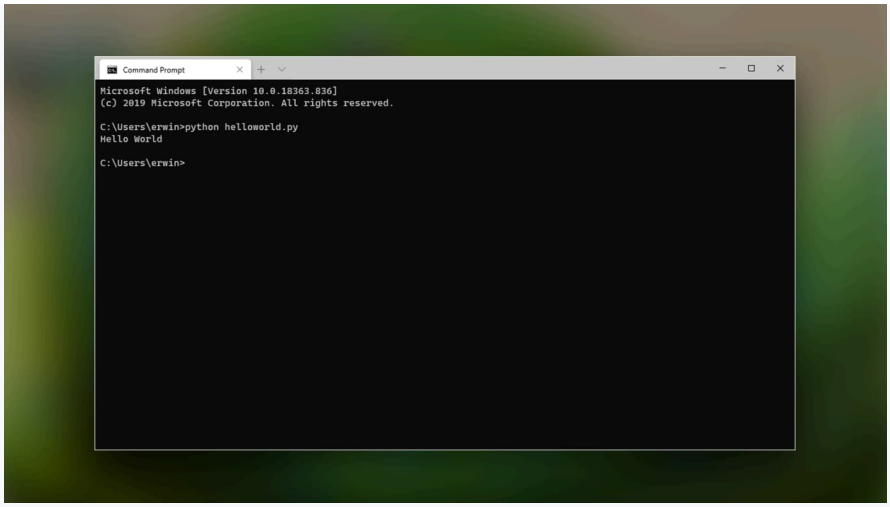



Let's try some hello python program. Create a file called **helloworld.py**, then add the following codes.

```
print("Hello World")
```

To run the file, open up terminal, go to the directory and call.

```
python helloworld.py
```




# How to Install Pip on Python

Installing pip in your embedded python is easy. First, you just have to edit the **python39._pth** file inside your python directory. Then add `Lib/site-packages` on the top, then uncomment the `import site`.

```
Lib/site-packages
python39.zip
.

# Uncomment to run site.main()
automatically
import site
```

After that, open up Terminal or CMD. Then browse to your python directory. Since in our example, our python directory is C:\python3, the command should look like:

```
cd /d C:\python3
```

Once you're inside the directory, we can now install the pip.

```
curl https://bootstrap.pypa.io/get-pip.py
-o get-pip.py
python get-pip.py
```

Wait until the download completes and installs the required files. After that, pip is now installed in your system.

To use pip, just use the following command in the terminal. You can find other module at https://pypi.org/

```
python -m pip install THE_MODULE_NAME
```

## Troubleshoot PIP install

In some cases, you'll receive an error message when trying to install some modules that says *"Preparing wheel metadata ... error"*. There are ways to fix it by installing the WHL package of the module.

For example, when you install numpy. Some popular WHL file package are available at https://www.lfd.uci.edu/~gohlke/pythonlibs/#numpy

For Windows 10, download numpy-1.19.0rc2+mkl-cp39-cp39-win_amd64.whl

Then on the command prompt, to install it, just fire the following command.

```
python -m pip install numpy-1.19.0rc1+mkl-
cp39-cp39-win_amd64.whl
```

That's it guys!