

The background of the image is a grayscale illustration of a circuit board. It features various traces, pads, and circular components. A solid black horizontal band runs across the middle of the image, serving as a backdrop for the title text.

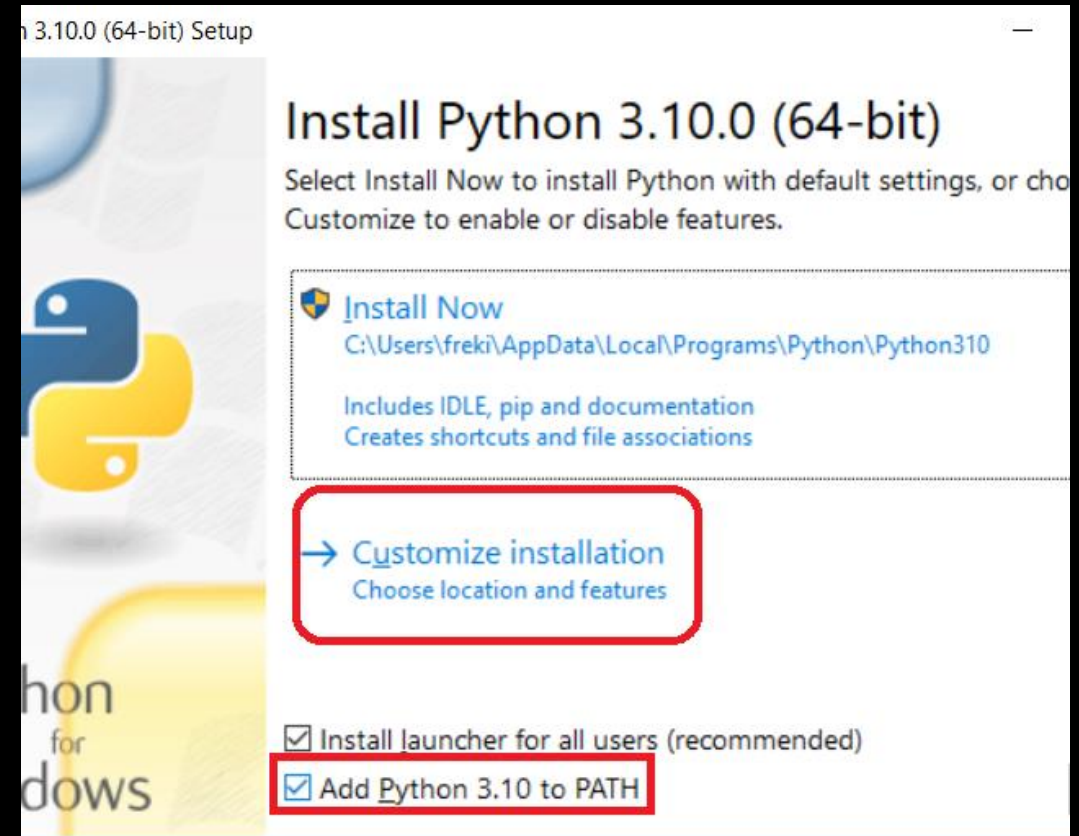
Installation Guide for MA321

Last updated in October 2021

Install Python

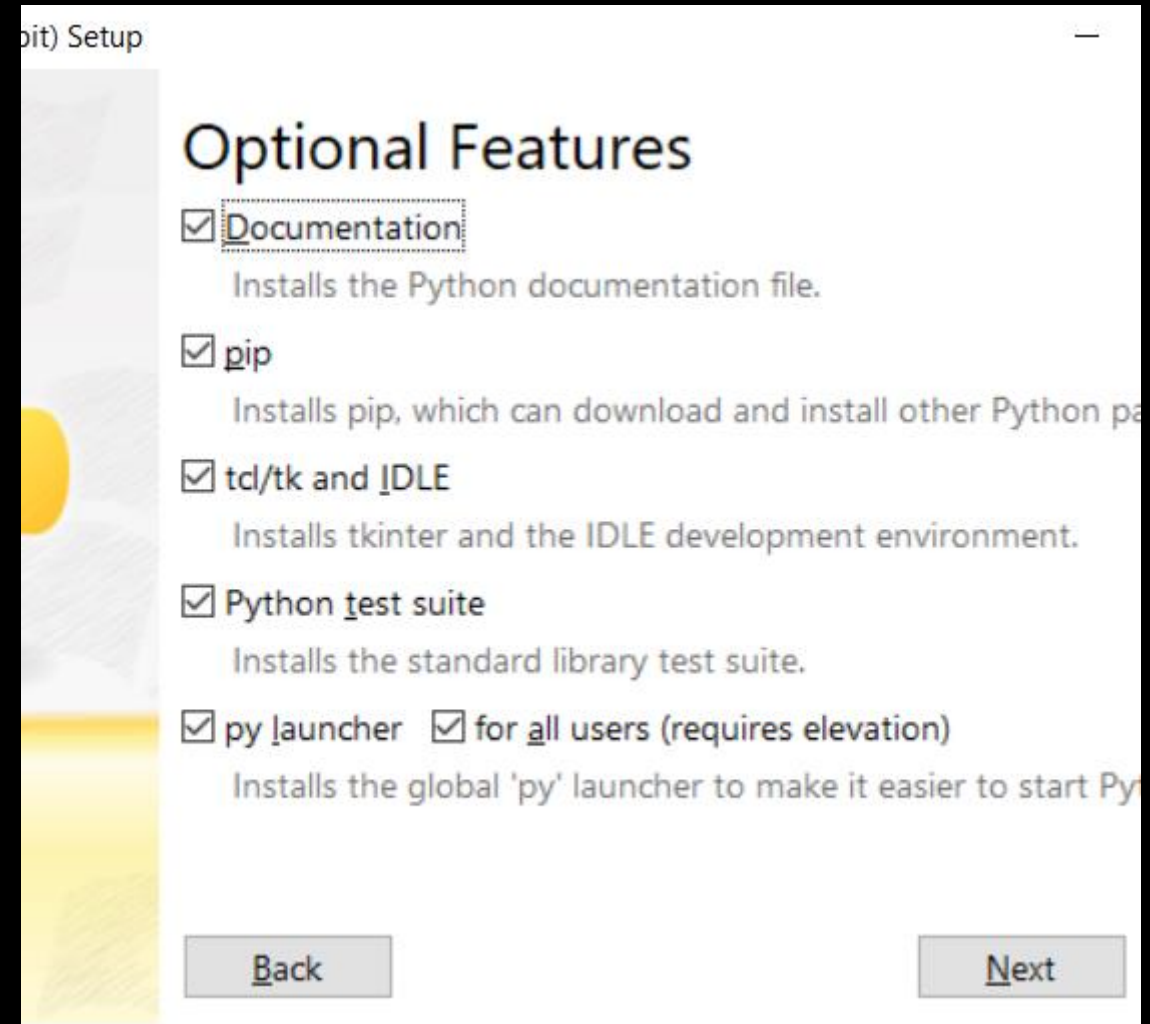
1. Go to <https://www.python.org/downloads/>
2. Download and run the installer for the newest Python (current version 3.10.0)*
3. Make sure you check the option **Add Python to PATH**
4. Proceed with **Customize installation**

**Note that the installer for macOS is different from Windows*



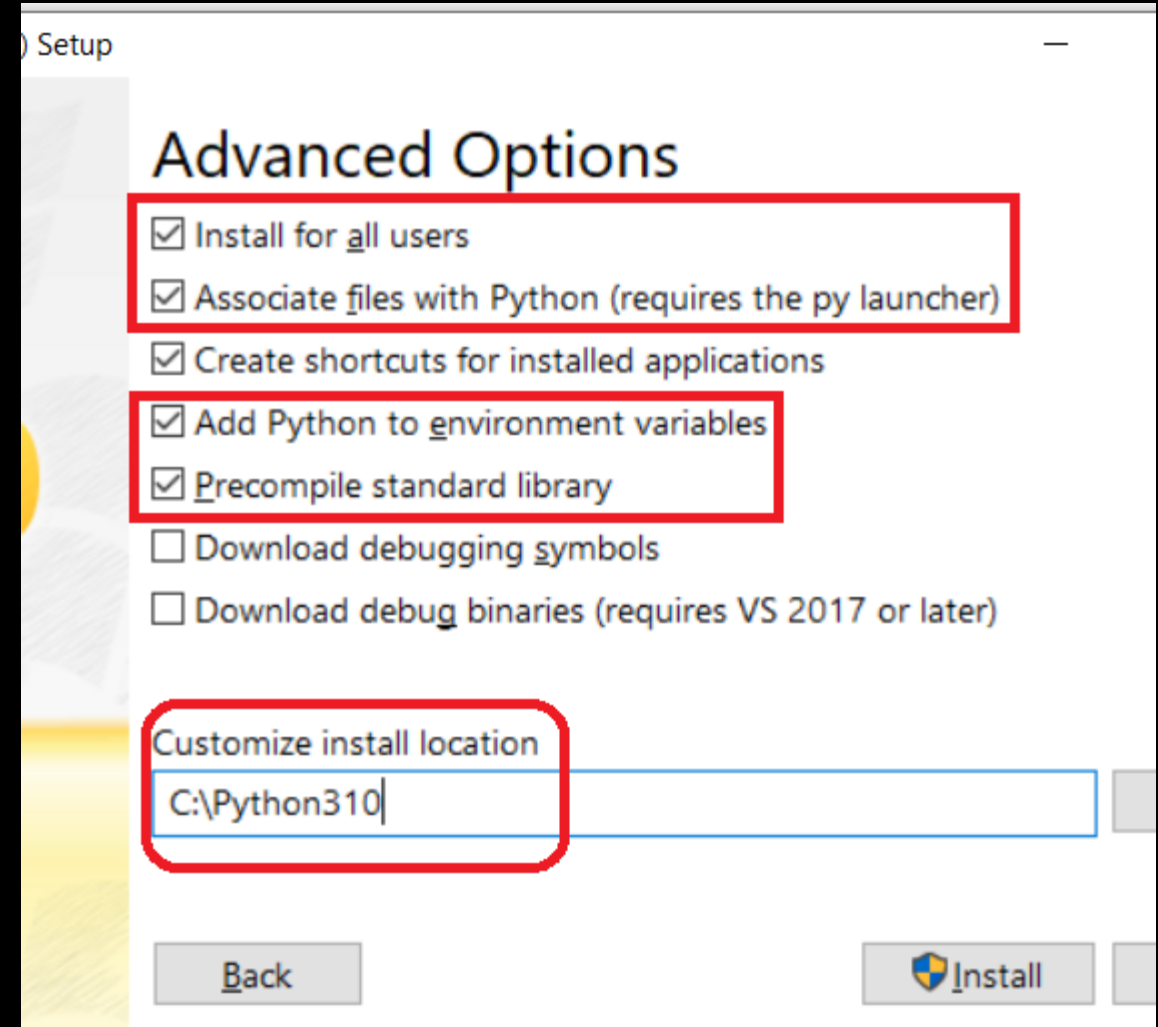
Install Python

5. Proceed with all options checked under Optional Features



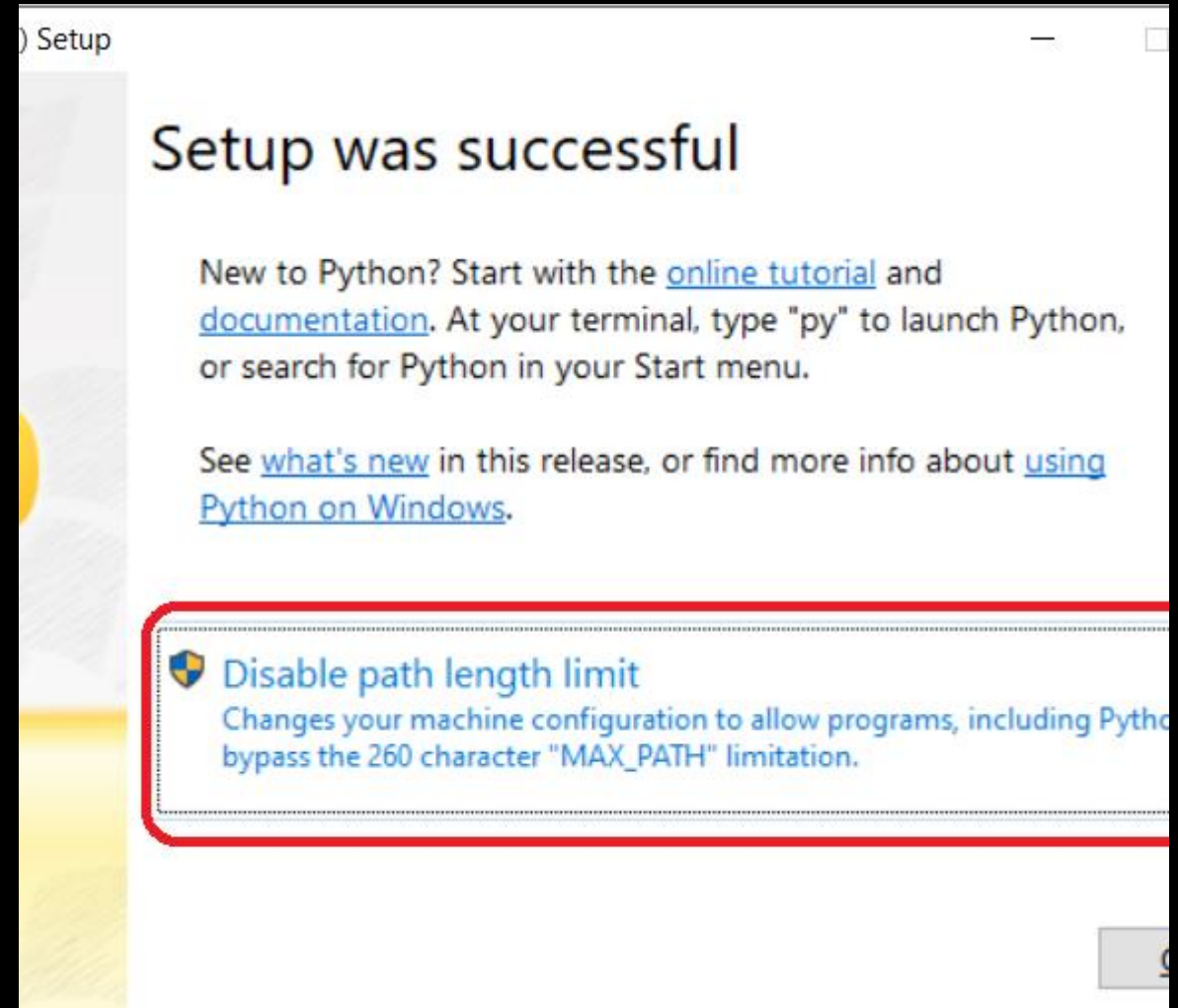
Install Python

6. Under Advanced Options, make sure the following options are checked:
 - **Install for all users**
 - **Associate files with Python**
 - **Add Python to environment variables**
 - **Precompile standard library**
7. You may customize the install location
8. Click on the **Install** button



Install Python

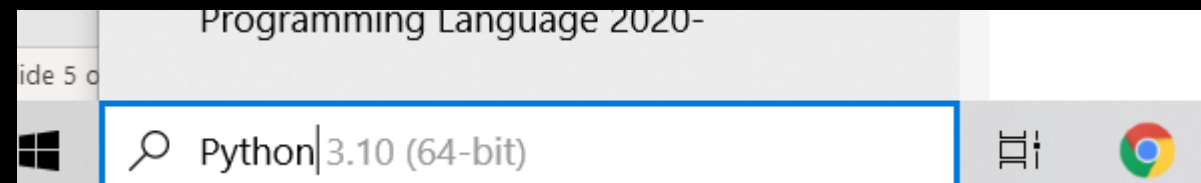
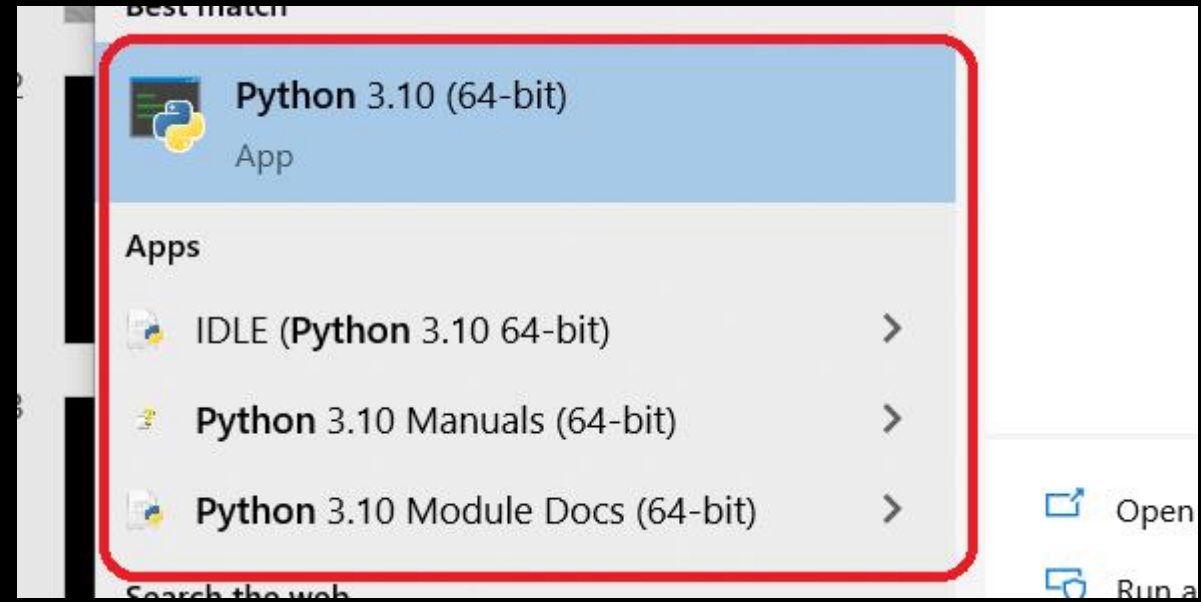
9. Click on **Disable path length limit** if you see this option
10. You need to **allow** installer to make changes to your device in the installation process



Verify Python has been installed

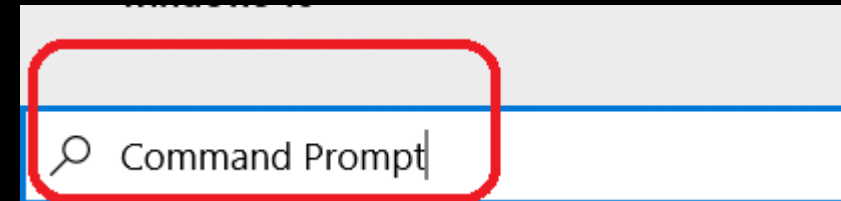
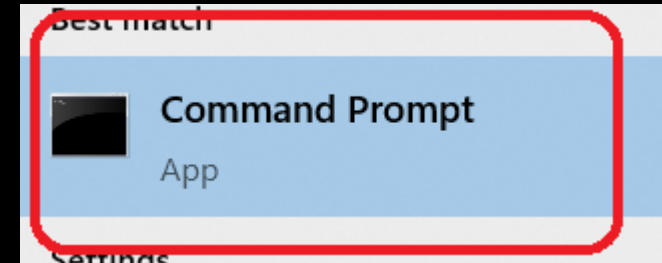
Type **Python** in the search box next to the window icon at the bottom left corner, you should be able to see the **Python 3.10 App**, including

- **IDLE**
- **Manuals**
- **Module Docs**



Install Jupyter Notebook

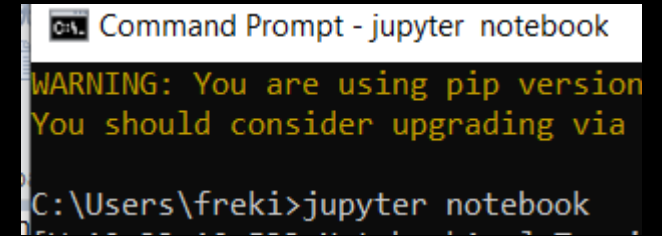
1. Type **Command Prompt** in the search box next to the window icon and run the app
2. In the command prompt window, type **pip install notebook**, then press **Enter**



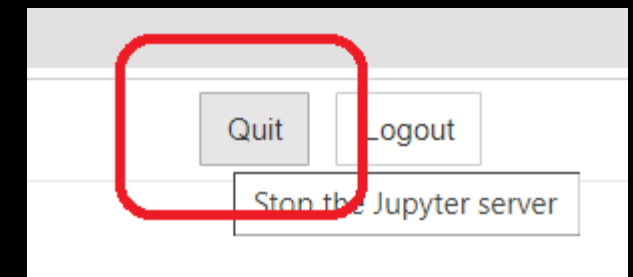
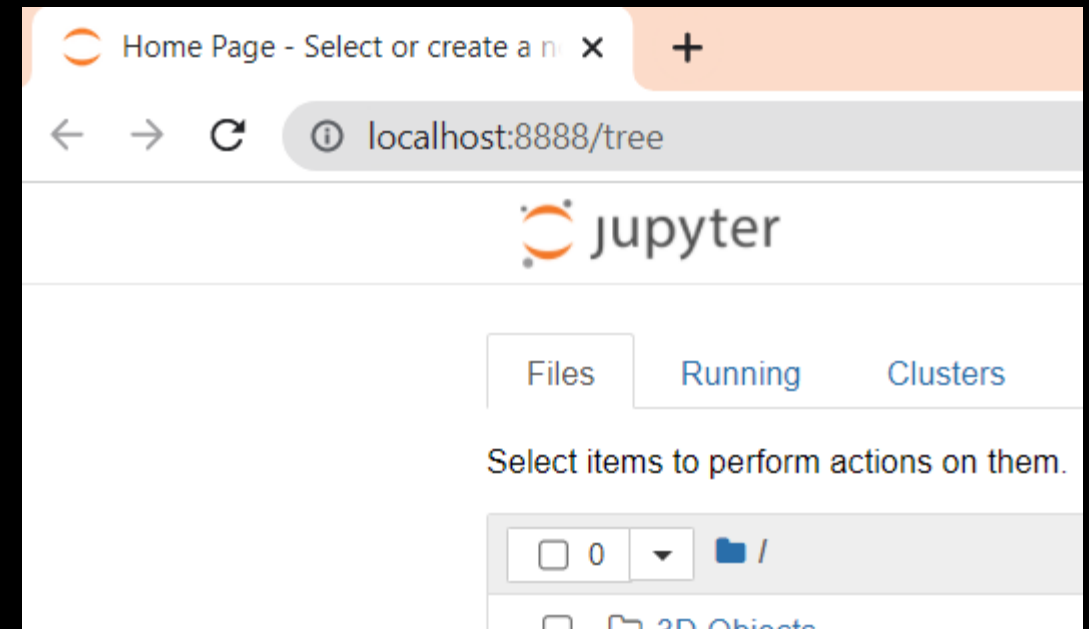
```
Command Prompt - pip install notebook
Microsoft Windows [Version 10.0.19043.1288]
(c) Microsoft Corporation. All rights reserved.
C:\Users\freki>pip install notebook
```


Run Jupyter Notebook

1. Open and stay in **command prompt** window
2. Type **jupyter notebook**, then press **Enter**
3. You should be able to see A jupyter page opened in your default browser
4. Now you may create **.ipynb** file for coding with python (refer to next slide for details)
5. To close jupyter notebook, click on the **Quit** button on the top right corner, then close the browser and the command prompt window



```
Command Prompt - jupyter notebook
WARNING: You are using pip version 20.0.2; however, pip 21.0 has been released.
You should consider upgrading via the 'python -m pip install --upgrade pip'
command.
C:\Users\freki>jupyter notebook
```



Create a File for Coding

1. In the browser with jupyter notebook open, click on the drop-down list button **New** on the top right corner, then select **Python 3**
2. Now you may code on the notebook page opened in the browser, the file type will be **.ipynb**

