

# INSTALLING PYTHON AND ATARRI

## 1 Installing python

You must first have a working version of python installed on your computer. Directions for this are slightly different depending on if you are using a Windows, Mac, or Linux machine. In the following is a basic set of instructions, if you run into trouble, try a (specific) Google search on the problem you are having.

ATARRI currently works best with python version 3.8 (some users have experienced problems with version 3.9). Head to the downloads<sup>1</sup> area of the python webpage and find the latest release of python 3.8 for your operating system.

There may be options in the installation process to update the PATH environment so your system knows about this python version. Therefore, this may not be necessary, but if you have multiple versions of python downloaded you have to specify which one you want to use. If you are using Windows, [this tutorial](#) may be helpful. If you are using Mac or Linux, you can change your bash or tcsh login scripts to add the python installation directory to your path and/or alias the python command to point to the correct place.

To make sure you have python installed correctly, open a command prompt (in Windows type `cmd` in the start menu search, on Mac or Linux open a terminal) and type `py` for Windows (then hit Enter) or `python` or `python3` (then hit Enter) for Mac/Linux. If the PATH environment is not correct, you will get an error saying the command is not recognized. If it is successful, it should print the python version that is running along with other information and then a `>>>` prompt.

## 2 Update pip

Normally automatically installed with python, pip is a python package installer. An updated version of pip is important to make sure all other packages are also up-to-date.

On a Windows machine, open the command prompt and type the following:

```
py -m pip install --upgrade pip
```

(NOTE: there are 2 dashes (-) in front of “upgrade”.) This should return a message saying something about already being up-to-date, or successfully updated.

On a Mac/Linux machine, in a terminal window type one of the following commands:

```
pip install --upgrade pip
```

-or-

```
python -m pip install --upgrade pip
```

(NOTE: there are 2 dashes (-) in front of “upgrade” and you may need to add a “3” to the end of the initial commands, such as `pip3` or `python3`.) This should return a message saying something about already being up-to-date, or successfully updated.

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<sup>1</sup><https://www.python.org/downloads/>

### 3 Install Modules

Now that we have python installed and pip updated, we can install the packages we need to run the ATARRI GUI.

In Windows type:

```
py -m pip install numpy scipy astropy lightkurve ATARRI
```

(NOTE: enter these exactly as they are typed and make sure they are spelled exactly as they are here, in particular, “lightkurve” is spelled with a “k”).

In Mac/Linux type one of the following:

```
pip install numpy scipy astropy lightkurve ATARRI
```

-or-

```
python -m pip install numpy scipy astropy lightkurve ATARRI
```

(NOTE: enter these exactly as they are typed and make sure they are spelled exactly as they are here, in particular, “lightkurve” is spelled with a “k”. Also, as above, a “3” may be required on “pip” and “python”).

### 4 Testing

If you have everything installed correctly, you should be able to start an interactive python session (by searching for IDLE in the Windows start menu, by typing py in a command prompt in Windows, or python in a terminal in Mac/Linux) and type the following command with no errors:

```
from ATARRI.RRLClassifier import RRLClassifier
```

If you see a >>> prompt shortly after typing the above and hitting Enter, you have successfully installed ATARRI on your computer!

### 5 Starting the GUI

There is a python script included in the ATARRI distribution that gives an example of how to run the GUI named “example.py”. You can run python and pass it this script directly.

In Windows:

```
py example.py
```

In Mac/Linux:

```
python example.py
```

You may also be able to double-click on the example.py file to run it if executables, permissions, and file types are all setup correctly.

Or, you can do it in an interactive python session by typing the following commands:

```
import tkinter
from ATARRI.RRLClassifier import RRLClassifier
root = tkinter.Tk()
theGui = RRLClassifier(root)
root.mainloop()
```

Information on how to use the GUI can be found in the User’s Manual<sup>2</sup> and information about a science research use case can be found in the Guidebook<sup>3</sup>.

<sup>2</sup><https://github.com/kennethcarrell/ATARRI/blob/main/doc/UserManual.pdf>

<sup>3</sup><https://github.com/kennethcarrell/ATARRI/blob/main/doc/Guidebook.pdf>