

How to install Pygame and Kivy on a Mac

1. Open up the Terminal - this can be done by pressing Command + Space, and typing "Terminal". I recommend you keep this in your dock (Double click on the application, options, and "Keep in Dock").
2. Python 3 should automatically be installed. If not, type in "sudo install python3". Type in your password if prompted.
3. Install pip, if it already isn't installed. Pip is a convenient Python package installer. Type "sudo curl https://bootstrap.pypa.io/get-pip.py -o get-pip.py", and then type "sudo python3 get-pip.py". This should install pip.
4. Time to install pygame. Type in "sudo pip install pygame". Your terminal should show "Successfully installed pygame-1.9.6".
5. To test, type in "sudo python3 -m pygame.examples.aliens". This should pull up an alien game.
6. To install Kivy, type "sudo pip install kivy".

If installing pygame and/or Kivy fails it is probably because they haven't released the current version for your operating system version/Python version to pypi where pip looks.

If your pygame installation failed, try "sudo pip install pygame --only-binary :all:" this may get a "development" version that works for your system.

If your Kivy installation failed, try installing from Kivy.org with this command: "sudo pip install kivy[base] kivy_examples --pre --extra-index-url https://kivy.org/downloads/simple/"

kivy.org is where documentation of Kivy is. You can use this to learn the basics of the library. To test, here's very basic app code:

```
from kivy.app import App
from kivy.uix.button import Button

class TestApp(App):
    def build(self):
        return Button(text='Hello, World!')

TestApp().run()
```

Create a file in whatever text editor you prefer, paste this code in, and name the file "test.py". Remember where you saved your file.

A few tips for navigating files in Terminal:

* ls - this command shows you the names of all files in the folder you are in.

* cd [Folder] - this command navigates to a certain folder. If you type "cd Desktop", you will navigate to said folder. To navigate one folder back, type "cd ../".

Navigate to the folder where your test file is. Type "ls" to make sure your Python file is there. To run the file, type "sudo python3 test.py".

If prompted for password, type it in. This will open up a Python window with your application, which is just a giant button that says "Hello, World!".

Congratulations! Feel free to roam the kivy.org site for documentation.