

# Installing PyGame for Mac

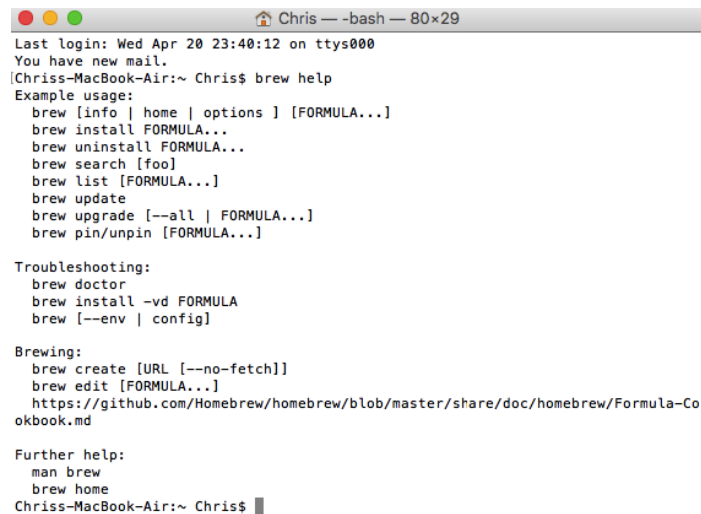
To begin, you will need to open Terminal (cmd+space then type “Terminal”). There are five different items that will have to be installed before using PyGame.

## 1) Installing Homebrew

Homebrew is a very useful tool you might already have. It is a command line installer for various programs and libraries. To check if you have homebrew installed, type the command:

```
brew help
```

If you see something similar to the following image:

A screenshot of a macOS Terminal window. The title bar shows 'Chris -- -bash -- 80x29'. The terminal output shows the result of running 'brew help'. It includes sections for 'Example usage:', 'Troubleshooting:', 'Brewing:', and 'Further help:'.

```
Chris -- -bash -- 80x29
Last login: Wed Apr 20 23:40:12 on ttys000
You have new mail.
[Chriss-MacBook-Air:~ Chris$ brew help
Example usage:
  brew [info | home | options ] [FORMULA...]
  brew install FORMULA...
  brew uninstall FORMULA...
  brew search [foo]
  brew list [FORMULA...]
  brew update
  brew upgrade [--all | FORMULA...]
  brew pin/unpin [FORMULA...]

Troubleshooting:
  brew doctor
  brew install -vd FORMULA
  brew [--env | config]

Brewing:
  brew create [URL [--no-fetch]]
  brew edit [FORMULA...]
  https://github.com/Homebrew/homebrew/blob/master/share/doc/homebrew/Formula-Co
okbook.md

Further help:
  man brew
  brew home
Chriss-MacBook-Air:~ Chris$
```

If you have Homebrew installed, you can simply check for updates and skip this step. To check for updates, type the command:

```
brew update
```

If you don't have homebrew installed, we will have to make a quick change before installing it. We need to edit the bash profile first, to do so type the command:

```
pico ~/.bash_profile
```

And paste the following line at the bottom if it does not already exist in the file.

```
export PATH=/usr/local/bin:$PATH
```

Now we are ready to install Homebrew, to install it type the command:

```
ruby -e "$(curl -fsSL https://raw.githubusercontent.com/Homebrew/homebrew/go/install)"
```

After installing homebrew, see the top of this section to verify Homebrew is installed.

## **2) Installing Apple Xcode command line tools**

To install the Xcode command line tools, simply type the command

```
xcode-select --install
```

This will popup an installer and you can follow the prompts to install the tools.

## **3) Installing xQuartz**

To check if you have xQuartz installed, type the command:

```
xquartz
```

If you have xQuartz installed, you should see either a notice to update xQuartz (which you should follow the prompts to do) or xQuartz will open in the system tray.

If you do not have xQuartz installed, go to <http://xquartz.macosforge.org/landing/> and download the latest version, then follow the prompts to install it. After installing, be sure to restart your mac.

## **4) Installing Python3 and PyGame**

Now that all the dependencies are taken care of, we can install Python and pygame. To install python and the tools we will need, type the command:

```
brew install python3 hg sdl sdl_image sdl_mixer sdl_ttf portmidi
```

This will install python along with several other packages required for PyGame via Homebrew. Next you will need to install PyGame itself through python's command line installer. To do so, type the command:

```
pip3 install hg+http://bitbucket.org/pygame/pygame
```

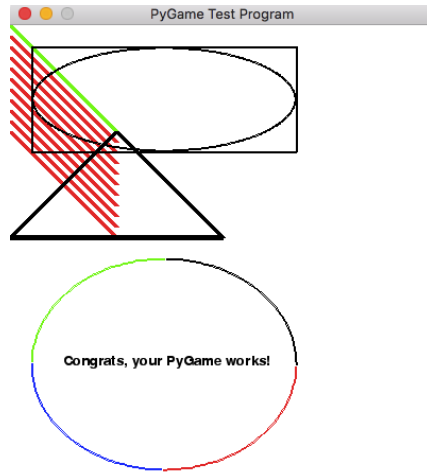
## **5) Verify PyGame works**

Now you should be all set to use PyGame! See below for common issues and solutions related to setting up PyGame. To make sure PyGame works, we will run a simple test program.

Download *pygametest.py* to wherever you'd like. Next, type the command:

```
python3 /path/to/pygametest/pygametest.py
```

You should then see a window popup that looks like the following:



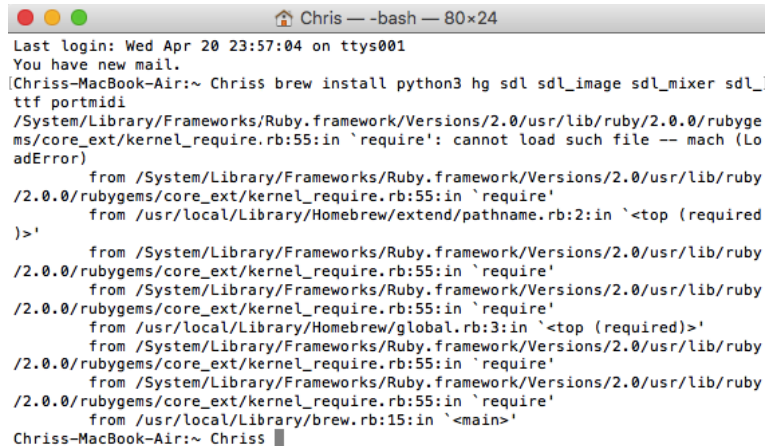
If your program looks like this one, then you are all set and your PyGame works! If not, see below for troubleshooting tips.

## Troubleshooting

Below are some common issues when installing PyGame and how to fix them. There may be more that I did not encounter, but these are the ones I found and how to fix them.

### Homebrew not working

If you are getting an error like the image below, you may be having issues with your Homebrew.

A terminal window titled "Chris - -bash - 80x24" showing the output of a Homebrew installation command. The command is: `brew install python3 hg sdl sdl_image sdl_mixer sdl_ttf portmidi`. The output shows the installation progress for various dependencies, but it fails with the error: `ms/core_ext/kernel_require.rb:55:in `require': cannot load such file -- mach (LoadError)`. The error message is repeated for several dependencies, including `sdl_image`, `sdl_mixer`, `sdl_ttf`, and `portmidi`. The terminal ends with the prompt `Chris-MacBook-Air:~ Chris`.

To fix this issue, you must first re-own your local folder. To do so Type the command below and enter your password when prompted to.

```
sudo chown -R $(whoami):admin /usr/local
```

Next, clean out the homebrew repository by typing the command:

```
cd /usr/local && git fetch && git reset --hard origin/master
```

Homebrew should now work again.