

ROI Raspberry Pi 400 Manjaro

Whilst Raspberry Pi OS contains a free licence to Wolfram the GNU Octave application is not a recent release. Manjaro has more recent packages.

Manjaro install

Balena Etcher flash to 128GB SD card Manjaro-ARM-xfce-rpi4-21.07.img

Boot

Welcome - British English Next

Location - click on London Next

Keyboard - English UK Default Next

Users - complete user and password fields Next

Summary - Set up

Finish - Done

Reboots - Login

Bottom Right network icon connect to WiFi

Manjaro Logo > System > xfce terminal

sudo Pac-Man -Syu

Restart

Manjaro Logo > System > Add/Remove software

Search fortran select gcc-fortran 10.2.0-1 Apply Apply

Search gnuplot select gnuplot 5.4.2-1 Apply Apply

Search octave select GNU Octave (octave) 6.2.0-1 Select texinfo,

Choose, java runtime and flex optional dependencies, select her-openjdk 16.0.1.up-1 extra Choose Apply Apply

Search code select Code - OSS(code) 1.57.1-1 Apply, tick bash-completions, zsh-completions, x11-ssh-askpass, Choose, Apply

In terminal mkdir Developer

cd /Developer

In Terminal python -V returns 3.9.5

python -m venv rp395

source rp395/bin/activate

pip install jupyterlab

pip install sympy pandas numpy plotly bokeh scipy seaborn

statsmodels scikit-learn

From [julialang.org/downloads](http://julialang.org/downloads) downloaded 64bit AArch64 of v1.6.2

```
Unzipped tar to /home/USER/julia
ln -s /home/USER/julia/julia-1.6.2/bin/julia /home/USER/Developer/
rp395/bin/julia
julia
using Pkg
Pkg.add("IJulia")
exit()
```

```
pip install ipywidgets ipympl octave-kernel
```

```
sudo pacman -S r
R
install.packages('IRkernel') fails
yes
yes
IRkernel::installspec()
quit()
```

22 Jul 2021

Configured VScode for code runner

Installed make4.3-3, gdb10.2-2, python-pip 20.3.4-1 with Add/  
Remove software

```
pip install fortran-language-server already done solution is in run
Debug click launch.json and modify program entry to default app
```

13 Aug 2021 To run Julia differ.jl in Julia

```
source rp395/bin/activate
```

```
julia
using Pkg
Pkg.add("Plots")
Pkg.add("DifferentialEquations")
Pkg.add("StaticArrays")
Pkg.add("BoundaryValueDiffEq")
Pkg.add("OrdinaryDiffEq")
Pkg.add("Sundials")
Pkg.add("SciMLBase")
```

```
Pkg.add("Plotly")  
Pkg.add("PlotlyBase")
```