Installing GNU Radio

```
Sudo apt-get update

sudo apt-get install git python3 python3-pip

sudo pip3 install --upgrade git+https://github.com/gnuradio/pybombs.git

pybombs auto-config

pybombs recipes add-defaults

sudo apt-get install python-pip

pip install mako

sudo apt-get install libcppunit-dev

pip install numpy lxml cheetah

sudo apt-get install pyqt4-dev-tools

pip3 install PythonQwt

sudo apt-get install python3-qtpy

sudo apt-cache search qt4

sudo apt-get install qt4-qmake

sudo apt-get install libqwt-dev


pybombs prefix init ~/gnuradio -R gnuradio-stable
```

create a file with

```
nano setEnviroment.sh
```
inside write:

```
export PYTHONPATH=$PYTHONPATH:~/gnuradio/lib/python2.7/dist-packages
export LD_LIBRARY_PATH=$LD_LIBRARY_PATH:~/gnuradio/lib
```
save with `Ctrl+X` than `Y` and `Enter`.


```
chmod +x setEnviroment.sh
```


```
source gnuradio/setup_env.sh
```


```
sudo apt install libcanberra-gtk-module libcanberra-gtk3-module
```

```
pybombs run gnuradio-companion
```

installing out of tree modules from recipes

```
pybombs install gr-ham
```

```
cd gnuradio/src/
```

```
rm -rf gr-iqbal/
```

```
git clone -b gr3.7 https://github.com/osmocom/gr-iqbal.git
```

```
cd
```

```
pybombs install gr-iqbal
```

```
sudo apt-get install libssl-dev
```

open your web browser and go to https://cmake.org/download/

Download the latest stable release for Unix/Linux Source higher than 3.13
`cmake-3.16.5.tar.gz`

extract the downloaded file and navigate to it in the terminal (~/Downloads/cmake-3.16.5), enter these commands to install:

```
./bootstrap && make && sudo make install
```

```
cd gnuradio/src/
```

```
rm -rf gr-osmosdr/
```

```
git clone -b gr3.7 https://git.osmocom.org/gr-osmosdr
```

```
cd
```

```
pybombs install gr-osmosdr
```

```
sudo apt-get install libosmocore-dev
```

```
sudo apt-get install libosmocore
```

```
sudo apt-get install libsctp-dev libsctp1
```

```
pybombs install libosmocore
```

```
sudo apt-get install lksctp-tools
```

```
pybombs install gr-gsm

cd gnuradio/src/

rm -rf gr-foo/

git clone -b maint-3.7 https://github.com/bastibl/gr-foo

rm -rf gr-ieee-80211/

git clone -b maint-3.7 https://github.com/bastibl/gr-ieee802-11.git

mv gr-ieee802-11/ gr-ieee-80211/

pybombs install gr-ieee-80211

pybombs install gr-lte

pybombs install gr-mac

pybombs install gr-adsb

pybombs install gr-bluetooth

pybombs install gr-lpwan

pybombs install gr-radar



pybombs install gr-ofdm

pybombs install gr-satellites

pybombs install gr-tutorial

pybombs install  gr-psk-burst

pybombs install  gr-fsk-burst
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pybombs run gnuradio-companion
```