

Step 1. Install Ubuntu 20.04 [Ubuntu 20.04.6 LTS \(Focal Fossa\)](#)

Step 2 Install NS-3.35

1. Open Terminal
2. `$ cd ~`
3. `$ cd workspace`
4. `$ git clone https://gitlab.com/nsnam/ns-3-allinone.git`
5. `$ cd ns-3-allinone/`
6. `$./download.py -n ns-3.35`
7. `$ cd ns-3.35`
8. `$./waf configure`
9. `$./waf build`

Step 3 Install NR Module in NS-3.35

1. Open Terminal
2. `$ cd ~`
3. `$ cd workspace/ns-3-allinone/ns-3.35/src`
4. `$ git clone https://gitlab.com/cttc-lena/nr.git`
5. `$ cd nr`
6. `$ git checkout 5g-lena-v1.2.y`
7. `$ cd ../../`
8. `$./waf configure`
9. `$./waf build`

Step 4 Install NS-3-ai

1. Open Terminal
2. `$ cd ~`
3. `$ cd workspace/ns-3-allinone/ns-3.35/contrib`
4. `$ git clone https://github.com/hust-dianguop/ns3-ai.git`
5. `$ cd ..`
6. `./waf configure`
7. `./waf`
8. `$ cd contrib/ns3-ai/py_interface`
9. `$ pip3 install . --user`

Step 5 Run the Code Base

1. Put the `nr_bsr_allUE` folder in the the scratch folder
2. Replace the `nr-ue-mac.cc` file in the `ns-3.35/src/nr/model` folder with the given modified file
3. Open the terminal in the `nr_bsr_allUE` folder
4. Run the `requirements.txt` file : `pip3 install -r requirements.txt`
5. To get the without prediction results we have to comment out sections of 2 files:
 - a. Comment out line 97-133 in `run_online_lstm.py`
 - b. Comment out line 163-179 in `my-tdma.cc`

6. Run the file through terminal : `python3 run_online_lstm.py 1 > log.out 2>&1`
7. We get the log files in log.out and output file in the flow folder