First of all, I faced many problem while installing tutlebot3:

First my Linux system was ubuntu 20.04 the last version of the system that’s why many references that were on the internet were for version 16 or 18 max there were non for 20 which is the version I installed And that’s total missed up because I did not know how to install it and every time, I try I get error and problems

Now my only option is to reinstall an older version of Linux and try to reinstall ros and tutlebot again

**Install-tutlebot3**

**Tutorial for install Turtlebot3 package with Gazebo simulation**

make sure about the ROS version, here Noetic

* Install turtulebot3 package
  + Creating Workspace on ROS

$ mkdir -p ~/catkin\_ws/src $ cd ~/catkin\_ws/ $ catkin\_make

* + Authintication for install

$ source devel/setup.bash

* + Dependence install $ cd ~/catkin\_ws/src/ $ git clone <https://github.com/ROBOTIS-GIT/turtlebot3_msgs.git> $ git clone <https://github.com/ROBOTIS-GIT/turtlebot3.git> $ cd ~/catkin\_ws && catkin\_make

if you faced problem about "git", install by

$ sudo apt install git

then complete. - Models of TurtleBot3 are Burger, Waffle and WaffelPi. So, you need to add one of them - open the bashrc file by $ gedit ~/.bashrc write the follwing line at bottom of the file " export TURTLEBOT3\_MODEL=burger " save it and close - reload again $ source ~/.bashrc

* Install turtulebot3\_simulation using this reference <https://github.com/ROBOTIS-GIT/turtlebot3_simulations.git>
* Launch simulation file
  + Gazebo simulatore $ roslaunch turtlebot3\_gazebo turtlebot3\_empty\_world.launch
    - test SLAM $ roslaunch turtlebot3\_gazebo turtlebot3\_world.launch
  + RViz simulator $ roslaunch turtlebot3\_fake turtlebot3\_fake.launch

