

## ROS, MAVROS VE PX4 KURULUMU

- Aşağıdaki satırlar sırayla terminale yazılmalı.
- Aralarda hata verirse hatayı (CTRL + SHIFT + C) yapıp kopyalayıp Google'a (CTRL + V) yapıştırarak forumlardan çözümüne bakılabilir.

```
sudo apt-get install ros-noetic-mavros ros-noetic-mavros-extras
```

```
wget https://raw.githubusercontent.com/mavlink/mavros/master/mavros/scripts/
```

```
sudo bash ./install_geographiclib_datasets.sh
```

```
sudo apt install python3-pip
```

```
pip3 install --user future
```

```
sudo apt install python3-lxml libxml2-utils
```

```
sudo apt install python3-tk
```

```
pip3 install empy toml numpy packaging jinja2
```

```
sudo apt install libgstreamer1.0-0 gstreamer1.0-plugins-base gstreamer1.0-plugins-good  
gstreamer1.0-plugins-bad gstreamer1.0-plugins-ugly
```

```
sudo apt install gstreamer1.0-libav gstreamer1.0-doc gstreamer1.0-tools gstreamer1.0-x  
gstreamer1.0-alsa gstreamer1.0-gl gstreamer1.0-gtk3 gstreamer1.0-qt5 gstreamer1.0-pulseaudio
```

```
sudo apt install geographiclib -y
```

```
pip3 install kconfiglib
```

```
pip3 install --user jsonschema
```

```
sudo apt-get install libgstreamer-plugins-base1.0-dev
```

```
cd ~
```

```
git clone https://github.com/PX4/PX4-Autopilot.git
```

```
cd PX4-Autopilot/
```

```
git checkout release/1.13
```

```
cd ~
```

gedit .bashrc

(Açılan pencerede en alt satıra aşağıdaki üç satırı kopyala yapıştır, kaydet)

```
source PX4-Autopilot/Tools/setup_gazebo.bash $(pwd)/PX4-Autopilot  
$(pwd)/PX4-Autopilot/build/px4_sitl_default
```

```
export ROS_PACKAGE_PATH=$ROS_PACKAGE_PATH:$(pwd)/PX4-Autopilot
```

```
export  
ROS_PACKAGE_PATH=$ROS_PACKAGE_PATH:$(pwd)/PX4-Autopilot/Tools/sitl_gazebo
```

**TÜM AŞAMALAR BİTTİĞİNDE HATA GELMEZSE KURULMUŞ DEMEKTİR**

**ROS ÇALIŞTIRMAK İÇİN**

- Terminale “roscore” yaz, sorun yoksa çalışıyordur

**PX4 ve SİMÜLASYON İÇİN**

- cd PX4-Autopilot/  
- make px4\_sitl\_default gazebo

**MAVROS ÇALIŞTIRMAK İÇİN**

- Terminale “roslaunch mavros px4.launch fcu\_url:="udp://:[14540@127.0.0.1](https://www.bilibili.com/video/BV1314y1g7pY):14557" yaz