- Installation
 - Installing gazebo tools
 - Running Simulation

Installation

Clone the repo:

```
git clone https://github.com/gtu-ros/drone_ws.git
```

or

git clone https://<oauth-key-goes-here>@github.com/gtu-ros/drone_ws.git

Initialize the drone workspace:

cd ~/drone_ws
catkin init

Build workspace

cd ~/drone_ws
catkin build

Add setup.bash to your .bashrc

echo "source ~/drone_ws/devel/setup.bash" >> ~/.bashrc

Update global variables

source ~/.bashrc

You can read ROS_Guides folder ROS Noetic guides.

Installing gazebo tools

Gazebosim link:

http://models.gazebosim.org/

Gazebo camera plugin guides:

https://classic.gazebosim.org/tutorials?tut=ros_gzplugins

https://answers.ros.org/question/210695/adding-a-camera-to-a-model-in-gazebo-beginner/

Running Simulation

roslaunch ardupilot_gazebo iris_with_roscam.launch

Check if camera topics are being published:

rostopic list

You should see something like this:

```
erhangk@erhan-Acer:~$ rostopic list
/clock
/gazebo/link_states
/gazebo/model_states
/gazebo/parameter_descriptions
/gazebo/parameter_updates
/gazebo/performance_metrics
/gazebo/set_link_state
/gazebo/set_model_state
/roscam/cam/camera_info
/roscam/cam/image_raw
/roscam/cam/image_raw/compressed
/roscam/cam/image_raw/compressed/parameter_descriptions
/roscam/cam/image_raw/compressed/parameter_updates
/roscam/cam/image_raw/compressedDepth
/roscam/cam/image_raw/compressedDepth/parameter_descriptions
/roscam/cam/image_raw/compressedDepth/parameter_updates
```

```
/roscam/cam/image_raw/theora
/roscam/cam/image_raw/theora/parameter_descriptions
/roscam/cam/image_raw/theora/parameter_updates
/roscam/cam/parameter_descriptions
/roscam/cam/parameter_updates
/rosout
/rosout_agg
```