

Guaranteed to work on Ubuntu 18 only

1. [Install ROS melodic](#)
2. [Install Gazebo 9.16](#)
3. Create workspace
 - a. **mkdir far_ws**
 - b. Inside /far_ws: **mkdir src**
4. Clone Payam's [follow ahead rl](#) git repo into **src**
5. Clone [multi_jackal](#) into **src**
6. Download dependencies
 - a. **sudo apt install ros-melodic-turtlebot3-description
ros-melodic-control-msgs ros-melodic-control-toolbox
ros-melodic-controller-interface ros-melodic-controller-manager
ros-melodic-controller-manager-msgs
ros-melodic-diff-drive-controller
ros-melodic-forward-command-controller
ros-melodic-gazebo-ros-control ros-melodic-joint-state-controller
ros-melodic-position-controllers ros-melodic-robot-localization
ros-melodic-move-base ros-melodic-lms1xx
ros-melodic-pointgrey-camera-driver
ros-melodic-pointgrey-camera-description
ros-melodic-hector-gazebo-plugins
ros-melodic-interactive-marker-twist-server**
7. Build project:
 - a. Go back to /far_ws directory
 - b. Run **catkin_make**
8. Source workspace: **source devel/setup.bash**
9. **roslaunch src/follow_ahed_rl/launch/turtlebot.launch**

ROS Dependencies

turtlebot3-description
control-msgs
control-toolbox
controller-interface
controller-manager
controller-manager-msgs
diff-drive-controller
forward-command-controller
gazebo-ros-control
joint-state-controller
position-controllers

Multi_Jackal dependencies

robot-localization
move-base
lms1xx
pointgrey-camera-driver
pointgrey-camera-description
hector-gazebo-plugins
interactive-marker-twist-server

Navigation/ Gym Env

global-planner
teb-local-planner
move-base
costmap-converter

Python Dependencies

Ppo_continuous dependencies:

tensorboardX
simple-pid
ipython

D4pg dependencies:

pandas
seaborn