

Homework 01- Mobile Robot Kinematics

We have a Two Wheeled Robot in a simulation environment with a stream of velocities information (linear, angular).

Your task is **calculating the pose** (position, orientation) depending on this information.

How we can get the velocities?

- There is a topic called `odom` which is published by *gazebo*.
- `odom` topic contains velocity and pose information related to the robot (we are going to use just the velocities).
- The type of messages that hold this information is called odometry.
- We can see this information by using `rostopic echo odom` command after running *gazebo* with the robot model.

How you can sure from the calculated pose?

- Compare your calculated pose with robot model pose in *gazebo*.

How the instructors will evaluate?

- We assume that you will create a node publish your calculated pose to a topic.
- We assume we can move the robot for a while then compare your calculated pose with *gazebo* pose and they have to be matched.

Notes:

- Work on this homework **individually**.
- Deadline is **Tuesday 24/12/2019**.
- You can find the *ros-tutorials* repo (where all labs files) [here](#).

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