← Project review - ROS. Day06

Type of project — Individual

Duration — 30 min

Git project

ssh://git@repos-ssh.21-school.ru:2289/students/ROS._Day06.ID_568833/aarchiba_python_...

Copy link | Open

Student

aarchiba-python-ds — level 1

About

Introduction

The methodology of School 21 makes sense only if peer-to-peer reviews are done seriously.
Please read all guidelines carefully before starting the review.
- Please, stay courteous, polite, respectful and constructive in all communications during t
his review.
- Highlight possible malfunctions of the work done by the person and take the time to disc
uss and debate it.
- Keep in mind that sometimes there can be differences in interpretation of the tasks and t
he scope of features. Please, stay open-minded to the vision of the other.
- If you have not finished the project yet, it is compulsory to read the entire instruction bef
ore starting the review.

Guidelines

- Evaluate only the files that are in src folder on the GIT repository of the student or group.
- Ensure to start reviewing a group project only when the team is present in full.
- Use special flags in the checklist to report, for example, an “empty work” if repository do
es not contain the work of the student (or group) in the src folder of the develop branch, or
“cheat” in case of cheating or if the student (or group) are unable to explain their work at a
ny time during review as well as if one of the points below is not met. However, except for
cheating cases, you are encouraged to continue reviewing the project to identify the probl
ems that caused the situation in order to avoid them at the next review.
- Doublecheck that the GIT repository is the one corresponding to the student or the grou
p.
- Meticulously check that nothing malicious has been used to mislead you.
- In controversial cases, remember that the checklist determines only the general order of t
he check. The final decision on project evaluation remains with the reviewer.

Main part

Exercise 00 - Learning Navigation in turtlebot3 simulation.

- The folder contains the files map_turtlebot3_world.pgm and map_turtlebot3_world.yaml, 2
D_Nav_Goal.bag?
- Does map_turtlebot3_world.pgm look like the turtlebot3_world map?
- Does map_turtlebot3_world.yaml contain map parameters?
- When launching the 2D_Nav_Goal.bag file via rosbag play, is the data published to the topi
c /cmd_vel ?

No ✓ Yes

Exercise 01 - Applying the Navigation ROS stack to your robot

- Does the folder contain files map_my_robot.pgm, map_my_robot.yaml and 2D_Nav_Goal.bag?
- Does map_my_robot.pgm look like the turtlebot3_house map?
- Does map_turtlebot3_house.yaml contain map parameters?
- When launching the 2D_Nav_Goal.bag file via rosbag play, is the data published to the topic /cmd_vel ?
- Run my_robot_navigation_AMCL_in_house.launch file from robot ROS package, check if navigation works by sending 2D Nav Goal command to RVIZ?

No ✓ Yes

Exercise 02 - Applying both SLAM and ROS of the Navigation stack to your robot.

- Does the folder contain files map_my_robot.pgm, map_my_robot.yaml and 2D_Nav_Goal.bag?
- Does map_my_robot.pgm look like the turtlebot3_house map?
- Does map_turtlebot3_house.yaml contain map parameters?
- When launching the 2D_Nav_Goal.bag file via rosbag play, is the data published to the topic /cmd_vel ?
- Run my_robot_navigation_SLAM_in_house.launch file from robot ROS package, check if navigation works by sending 2D Nav Goal command to RVIZ?
- Run my_robot_navigation_SLAM_in_house.launch file from the ROS package of the robot, check if the map is being built while sending the 2D Nav Goal command to RVIZ?

No ✓ Yes

Exercise 03 - Get out of the maze and return to the starting point on your robot using move_base

- You need to launch the robot from the participant's repository in the final maze of the competition. All participants are tested on one previously unknown maze, on the same computer, to ensure equal conditions.
The result should be the time for the robot to complete the task in minutes and seconds to find the exit from the maze to the green cube and return back to the starting point from the start of the command to the robot_start topic until the command to the robot_finish_maze_in topic after the robot stops completely. The time is taken from the time the message was received.
If the robot started moving before the robot_start command, the task is not counted and 0 points are awarded.
If after the robot sends a command to the robot_finish_maze_in topic, the robot continues to move, then the task is not counted and 0 points are awarded.
If, after the robot sent a command to the robot_finish_maze_out topic, the robot did not lea

ve the maze with the whole body, then the task is not counted and 0 points are awarded.
If, after the robot sends a command to the robot_finish_maze_in topic, the robot is not in th e place where it started from, then the task is not counted and 0 points are awarded.
- Does the folder contain the robot metapackage ROS files with everything needed to run?
- Does the metapackage compile without errors?
- Launch file of the robot on the competitive maze started without errors?
- Did the robot complete all the tasks and get the execution time?
- Did the robot violate any conditions?
- Does ROS robot metapackage use move_base and path planner plugins from Navigation st ack ROS?

No ✓ Yes

Feedback

Fails

Crash | Forbidden functions | Empty work | Cheat | Invalid compilation

Comment

Leave a comment...

✓ Review