Exercise 7 December 6, 2021

Submission online until **Tuesday, 14.12.2021, 11:55 a.m.**

Assignment 7-1: Obstacle Avoidance (10 Points)

It is advised to disable the emergency stop feature for this task so the car can navigate even in narrow areas:

```
rosrun dynamic_reconfigure dynparam set /autonomics/emergency_stop break_distance 0.0
```

Implement a simple obstacle avoidance using the LiDAR. The car shall drive straight (around $0.3\frac{m}{s}$) at all times unless there is an obstacle in front. In case of an obstacle in front the car should steer maximum to the left or to the right whichever direction is not occupied by an obstacle. Use the given simulation environment which spawns an obstacle maze in the lab and lets the car navigate the maze.

Copy the provided file `empty.world` into `autominy/catkin_ws/src/autominy_simulator/autominy_sim/worlds`.

Record and submit a video of the car navigating the maze. Describe your approach briefly in the Pdf, which you submit.

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gitlab src link:

https://git.imp.fu-berlin.de/thob97/thornavid/-/tree/thore/src/assignment7/src/main.py