

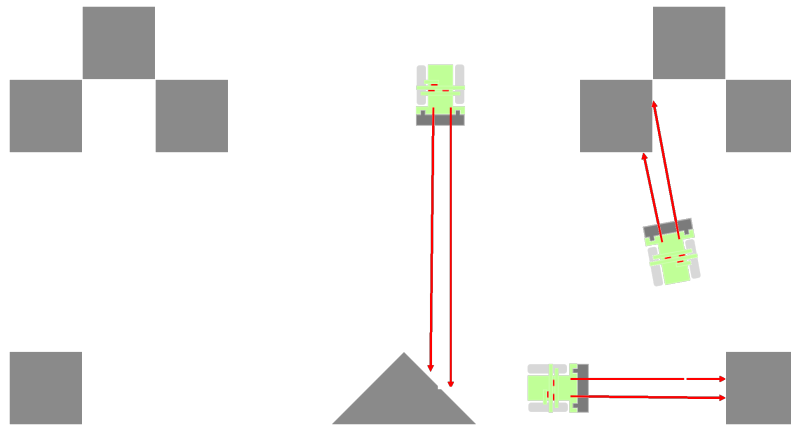
2016-10-01

PROJEKTPRAKTIKUM

Neurorobotics platform - Pushbot Race

Problembeschreibung:

In this project you are going to work with the Neurorobotics platform, a robot simulation framework created by The Human Brain Project[1],[2]. Your task will be to design a robot called Pushbot, which we use in our research group, in the simulator. Afterwards, the Pushbot has to complete a short racing track (see below). During the race, you will use the two laser pointers and the mounted DVS to estimate the position relative to objects and use this estimated position to perform two 90° turns and park the Pushbot in the goal position. For that, you will need to build a closed-loop control system.



Leistungen:

- Get familiar with the NRP
- Build the Pushbot and the track in the NRP
- Design an algorithm to make the Pushbot autonomously drive the track *in cooperation* with the group that works with hardware Pushbots
- Compare performance of simulated and real-world system

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Literatur

[1] www.humanbrainproject.eu

[2] www.neurorobotics.net