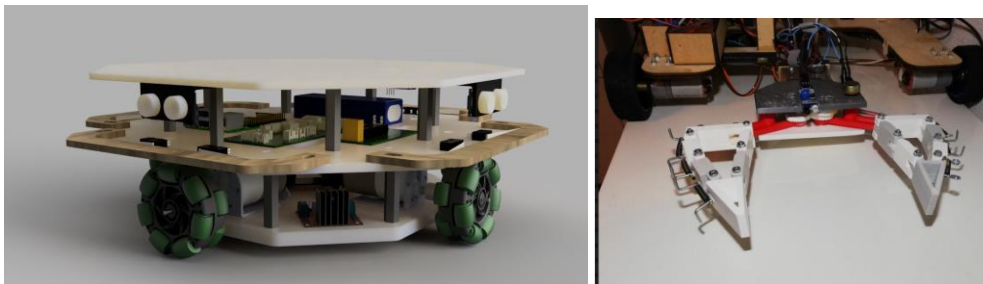


Towards self-learning robots

For robots to execute robust behavior, they need the ability to adapt to new environments and (changes in) their environment. This project aims to implement this adaptability in our already existing robotic software, which we use for sensor calibration and state estimation. The goal is to achieve a level of self-learning by which the robot:

- learns the effect of its actions on its state and environment
- can distinguish different situations
- can achieve a predefined goal, by choosing the right action in a certain situation
- ...

Since we aim for a generic software framework, the methods should be able to be used on any kind of robot. The student will also set up experiments on (one of) our robots to evaluate the implemented methods.



The work includes

- Literature study
- Getting acquainted with the robot and current framework (python)
- Develop software for self-learning
- Evaluating the effectiveness
- Testing in our robotic sensing lab (Building K, 5th floor)

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