



**HiWi/Thesis:
Design and Control of an Omnidirectional Robot**

Fachbereich 18
Elektrotechnik und
Informationstechnik

Institut für Nachrichtentechnik

Self-Organizing Systems

Are you interested in programming an agile ground robot? Then this project could be just the right thing for you.



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In this project we focus on an omnidirectional robot with a high power-to-weight ratio. Several power units are already available in the laboratory. Your task is to design the robot to be as compact as possible and to program its control system.

You will work in the Self-Organizing Systems Lab where you will have access to our 3D printer and other electrical lab equipment to build the prototype hands-on.

8. Februar 2024

What you need to apply:

- Solid programming skills in C++ or Java

Some of the following might be helpful:

- Good knowledge of control theory
- Experience with 3D CAD software

For more information about the potential for a thesis, please contact Mengguang Li.