

## Diplomarbeit / Studienarbeit

# Implementation of a model-based control for cable-driven robots



Cable-driven robots are parallel kinematic systems that use flexible cables instead of rigid connecting elements. This allows large workspace to be covered at high speeds. At the Chair of Dynamics and Mechanism Design a redundant robot with more cables than degrees of freedom is being developed as part of the [Ropebot](#) project.

The aim of this work is to design and implement a model-based control system for the existing prototype.

Possible tasks include:

- Modeling of robot dynamics
- Experimental or computational characterization of the model parameters
- Software implementation in ROS2 (C++ or Python)

### Contact

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