

Automated Driving Systems - Co-Simulating Autoware with Simulink®

Setting:

<u>Autoware</u> is an open-source, ROS-based automated driving stack with grown popularity among users. The project is about demonstrating interconnectivity between MATLAB®, Simulink® and their toolboxes with a state-of-the-art open source automated driving environment.

Your Goal:

Key objective of this project is to connect Autoware to MATLAB® and Simulink® through Robotics System Toolbox™ for co-simulation. Additionally, an automated-driving co-simulation example needs to be developed and showcased.

Tasks:

- Research on tools and co-simulation interface
- Development of a proof concept software-demo based on a self-chosen, urban automated driving scenario.
- Documentation of advantages and limitations of involved tools.
- Publish findings on <u>MATLAB Central FileExchange</u>.

Project Characteristics

Modeling: ★★★★
Mathematics: ★★☆☆
Programming: ★★★☆
Science: ★★★☆

