



# Rejecting User Commands in Highly Autonomous Vehicles - Feasibility and Usability

## Open Bachelor/Master Thesis

### Background

Autonomous vehicles will change how we interact with such systems. Thus, it changes the act of driving from direct operations to a more supervisory role. This can lead to conflicts between the user and the system. The question arises, how the user is affected if the system places itself above the user and rejects a user's command (e.g., the user wants to park where it is not allowed, and the vehicle refuses this). These effects are assumed to depend on several aspects, such as whether the command is valid or not, how the system justifies the rejection, and how it is presented to the driver.

### Research Goal

The aim of this work is to investigate whether a system that rejects user commands is feasible and usable and how such a system affects the user. Related work research should be conducted, and scenarios should be created. Further, a prototype should be designed and implemented that covers these scenarios. Finally, a user study should be conducted.

Based on bachelor/master level the scope is adapted.

Annika Stampf  
Institute of Media Informatics  
O27 / 3303

[annika.stampf@uni-ulm.de](mailto:annika.stampf@uni-ulm.de)

