



Shape Changing Interfaces in Vehicles

Open Bachelor/Master Thesis

Background

With the introduction of automated vehicles, the interior interaction space will fundamentally change due to, e.g., usage of swivel seats, omitted control consoles, or non-driving related activities. In this context, shape changing interfaces provide dynamic shape as physical input and output. However, the usability of such interfaces regarding user interactions with in-vehicle systems is largely unknown. Besides, there are open questions in designing shape changing interfaces to enhance the communication between vehicle and passenger, e.g., signaling a vehicle state.

Research Goal

The aim of this thesis is to explore a use case for shape changing interfaces in vehicles. A related work research should be conducted and a prototype, e.g., in virtual reality should be designed and implemented that investigates several of these aspects. Finally, the defined hypothesis should be evaluated by conducting a study.

Based on bachelor/master level
the scope is adapted.

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Images:

<https://www.mercedes-benz.com/en/vehicles/passenger-cars/mercedes-benz-concept-cars/vision-avtr/>