

### FAKULTÄT FÜR INFORMATIK

#### DER TECHNISCHEN UNIVERSITÄT MÜNCHEN

Practical Course Report

# $\frac{\mathrm{HW/SW}}{\mathrm{co-design}}$ with a LEGO car

Car2X Communication

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### Introduction

- 1.1 Motivation
- 1.2 Problem description
- 1.3 Approach

## Concept

- 2.1 Hardware structure
- 2.2 Communication Flow
- 2.3 Car2X Protocol

### Hardware

This chapter describes the basic concept and configuration of the car-system's hardware. A basic knowledge of Altera Quartus II is assumed.

- 3.1 Topology
- 3.2 Configuration QSYS
- 3.3 Configuration Top Level File
- 3.4 Problems
- 3.5 WiPort

### Software

- 4.1 Communication Core
- 4.2 CarControl Core
- 4.3 Shared memory Controller

### Conclusion

Appendix A

Stuff...