Master Thesis: Tool for fault injection testing in an automotive communication network

Background

Modern automotive vehicles are distributed systems that rely heavily on their communication networks for correct functionally. Many of these systems are safety critical and information on their communication networks are also safety critical. These kinds of systems require extensive verification and validation. Part of this concerns verifying correct behavior even in the case of faults on the communication network. To this end a testing tool that injects fault in an automatic way can be used.

Objective

Design a tool that can be used for automatic fault injection testing in a vehicle