

# Live Safety Monitoring LiDAR

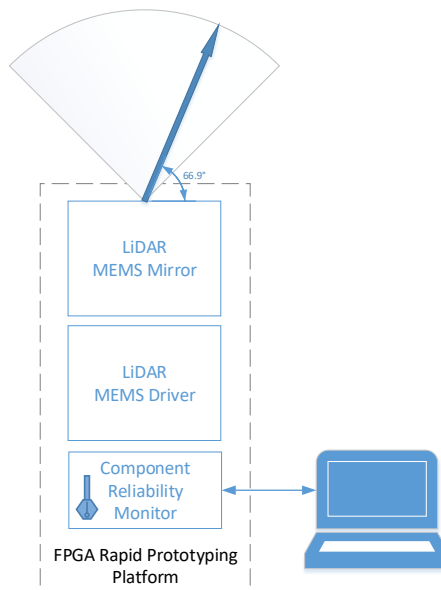


Figure 1: Concept overview Live Safety Monitor LiDAR system.

## Description

In modern automotive vehicles, Electronic control units (ECU) containing Integrated Circuits. These systems are designed for specific temperature mission profiles to ensure safety. After the vehicle integration it is not possible anymore to check, if the temperature mission profiles are met. This additional stress could lead to a safety problem such as a drop off the Automotive Safety Integrity Level (ASIL).

For this purpose, we want to integrate a Live Safety Monitoring to the LiDAR system that is logging the current temperature conditions. This data can be used, to determine the current component reliability status.

## Tasks

- Literature Research
- Implement I<sup>2</sup>C Interface to current FPGA Rapid Prototyping Platform
- Implement Component Reliability Monitor
- Test Monitor
- Documentation

## Contact

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