

# Design and Implementation of the Speed Measurement in a Vehicle Prototype applying the IEC 61508

## Task

For our experimental vehicle, we are in need of the conception and realization of speed measurement. Since this functionality is a matter of safety-critical functionality, the design must be carried out according to IEC61508 (functional safety of electrical/electronic/programmable electronic safety-related systems). The implementation should be done on a microcontroller or/and on a PLD. Furthermore, a connection to the CAN-bus should be created.

On the basis of an exemplary implementation, you will demonstrate how different requirements and rules for safety-critical systems can be implemented. Thereby, the international norm IEC 61508 and the MISRA guidelines will have special relevance.

- [IEC 61508 brochure](#)
- [IEC 61508 FAQ](#)
- [IEC 61508 main page](#)

## Student

- Emilio Codina

## Tutor

- [salewski](#)

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