

1 Introduction

Hier komt een korte introductie.

2 System description

The locomobile consists of the following components:

- Two channels to receive commands
- Three motors
- Three oil pressure pumps
- Three sensors

One of the two channels is redundant so that every command is received twice. Each of the three engines has its own oil pressure pump. The sensors measure the same thing, so 2 of them are also redundant. During ‘fijnpositioneren’, only one motor is used to keep the door in place. The locomobile communicates with the central system called ‘BesW’

3 Global requirements

The system must behave according to the following requirements:

- If a command is received for the first time, it should be executed.
- If a command is received twice, it should only be executed once.
- The three engines may not be started within three seconds of each other.
- When two or more sensors concur, this is taken as the outcome of the sensor.
- If all sensors indicate different outcomes, it is a measuring error.
- During fijnpositioneren, if the door is off-position by at least 1 meter, the locomobile should use one motor to guide it back to original position.
- If a motor or its power supply breaks down, it cannot be used until it has been manually inspected.
- If all three motors or their supplies break down, it must be reported as quickly as possible.

4 Interactions

Beschrijving van interacties.

5 Architecture

Architectuur van het systeem.

6 Behaviour (mCRL2)

The behaviour of the system in mCRL2.

7 Verification

Verify using the toolset that all requirements given in item 3 above are valid for the design in mCRL2.