Template MechanicalParts.pdf

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Abstract

The Mechanical Parts document is used the understand and check your system assemblies. Basically every part that transfers load inside the Emergency Brake System (EBS) system and leads to malfunction if it brakes must be schown here. A typical part is the pedalbox assembly or some self made pressure transducers.

1 Document Requirements

All EBS relevant parts (which not bought items or not added as ASF Add Item Request (AAIR)-Item) and assemblies must be shown here. They must be shown as renderings from different perspectives to enable an understanding of the functionality and to determine critical load paths. All relevant parts shown must be named uniquely by its function e.g. Brake pedal connection rod. Please provide renderings of single parts in an assembly whenever necessary. Add cut views especially for self designed hydraulic parts. Please put only one Assembly/standalone Part per page. Sub-assemblies or parts of an assembly might be put together onto one or multiple additional pages. If sensors are used to measure mechanical properties (e.g. position, force) they must appear here and be named properly to be clearly identified in the wiring diagram.

2 Example

Warning:	The following example shows only how the document could look like and what is meant by the different checklist points. The technical content is not necessarily compliant to the rules nor necessarily related to the other documents nor function at all.

Mechanical parts (Pedalbox)	
Team Name: Formula Student Germany	University: FSG Academy
Car#: 000	driverless formula student germany
Document Version: V1.0	
Date: 28.02.2019	Sheet/Bl.: 1 / 1

3 Document Checklist

The following checklist will give you an overview of the points which mandatorily have to be fulfilled to get an approval. This checklist will also be used during the review process. But the the review is not only limited to this list. We will check additional points as well.

☐ GENERAL REQUIREMENTS

1 ◯ Document is printable in DIN A4.
2 ◯ Team name, University, Car# is written on every page.
3 ◯ Pictures well sized and in good resolution (vector or 300dpi).
4 ◯ Relevant text is embedded as text and not as picture (search-able).
5 ◯ Document name is written on every page.
6 ◯ All Pages are numbered, including total number of pages e.g. Page 1/5.

☐ SPECIFIC REQUIREMENTS

7 ◯ All relevant parts and assemblies are shown (e.g. pedal box assembly)
8 ◯ All self build parts are shown (e.g. pressure transducer).
9 ◯ Every single part / assembly has its own page.
10 ◯ Sub-assemblies / parts are shown grouped on an additional Pages after assembly (if needed).
11 ◯ Cut views provided for all self developed hydraulic / pneumatic parts.
12 ◯ All parts named unambiguously corresponding to the vehicle overview and hydraulic diagram.

Changelog

V1.0: Initial Version.