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{

"Requirement":"Req\_SZ\_01",

"RequirementClassification":"SafetyGoal",

"LESS Requirement":"THE System SHALL PREVENT dangerous unintended acceleration"

},

{

"Reference":"test-Req\_SZ\_01",

"Requirement":"Req\_SZ\_01",

"Testobjects":["System","acceleration"],

"PRE":{},

"POST":{}

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{

"Requirement":"Req\_SZ\_03",

"RequirementClassification":"SafetyGoal",

"LESS Requirement":"THE System SHALL PREVENT dangerous unintended deceleration"

},

{

"Reference":"test-Req\_SZ\_03",

"Requirement":"Req\_SZ\_03",

"Testobjects":["System","deceleration"],

"PRE":{},

"POST":{}

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{

"Requirement":"Req\_SZ\_04",

"RequirementClassification":"SafetyGoal",

"LESS Requirement":"THE System SHALL PREVENT unintended loss of deceleration"

},

{

"Reference":"test-Req\_SZ\_04",

"Requirement":"Req\_SZ\_04",

"Testobjects":["System","deceleration"],

"PRE":{},

"POST":{}

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{

"Requirement":"SReq\_01",

"RequirementClassification":"SafetyFunctional",

"LESS Requirement":"THE Drive\_Pedal SHALL CHECK THE sensor\_signals OF THE Drive\_Pedal FOR plausibility"

},

{

"Reference":"test-SReq\_01",

"Requirement":"SReq\_01",

"Testobjects":["Drive\_Pedal","sensor\_signals","plausibility"],

"PRE":{},

"POST":{}

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{

"Requirement":"SReq\_01a",

"RequirementClassification":"SafetyFunctional",

"LESS Requirement":"THE Drive\_Pedal SHALL CHECK internal sensor\_signals OF THE Drive\_Pedal FOR plausibility"

},

{

"Reference":"test-SReq\_01a",

"Requirement":"SReq\_01a",

"Testobjects":["Drive\_Pedal","sensor\_signals","plausibility"],

"PRE":{},

"POST":{}

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{

"Requirement":"SReq\_02",

"RequirementClassification":"SafetyFunctional",

"LESS Requirement":"THE Throttle\_Valve SHALL CHECK THE sensor\_signals OF THE Throttle\_Valve FOR plausibility"

},

{

"Reference":"test-SReq\_02",

"Requirement":"SReq\_02",

"Testobjects":["Throttle\_Valve","sensor\_signals","plausibility"],

"PRE":{},

"POST":{}

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{

"Requirement":"SReq\_05",

"RequirementClassification":"SafetyFunctional",

"LESS Requirement":"THE Engine\_Control\_Unit SHALL DETECT THE errors OF THE actuator BY USING appropriate plausibility\_checks"

},

{

"Reference":"test-SReq\_05",

"Requirement":"SReq\_05",

"Testobjects":["Engine\_Control\_Unit","errors","actuator","plausibility\_checks"],

"PRE":{},

"POST":{}

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{

"Requirement":"SReq\_05a",

"RequirementClassification":"SafetyFunctional",

"LESS Requirement":"THE Engine\_Control\_Unit SHALL CHECK THE internal actuator signals FOR plausibility"

},

{

"Reference":"test-SReq\_05a",

"Requirement":"SReq\_05a",

"Testobjects":["Engine\_Control\_Unit","actuator","plausibility"],

"PRE":{},

"POST":{}

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{

"Requirement":"SReq\_06a",

"RequirementClassification":"SafetyFunctional",

"LESS Requirement":"THE Engine\_Control\_Unit SHALL DETECT AND confirm THE undesired high\_driving\_torque state"

},

{

"Reference":"test-SReq\_06a",

"Requirement":"SReq\_06a",

"Testobjects":["Engine\_Control\_Unit","high\_driving\_torque"],

"PRE":{},

"POST":{"high\_driving\_torque":{"safe\_state":false}}

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{

"Requirement":"SReq\_06a2",

"RequirementClassification":"SafetyFunctional",

"LESS Requirement":"THE Engine\_Control\_Unit SHALL DETECT AND confirm THE unintended acceleration"

},

{

"Reference":"test-SReq\_06a2",

"Requirement":"SReq\_06a2",

"Testobjects":["Engine\_Control\_Unit","acceleration"],

"PRE":{},

"POST":{"acceleration":{"safe\_state":false}}

}

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{

"Requirement":"SReq\_07",

"RequirementClassification":"SafetyFunctional",

"LESS Requirement":"THE Engine\_Control\_Unit SHALL monitor THE Function\_Controller"

},

{

"Reference":"test-SReq\_07",

"Requirement":"SReq\_07",

"Testobjects":["Engine\_Control\_Unit","Function\_Controller"],

"PRE":{},

"POST":{}

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{

"Requirement":"Req\_SEC\_ISO40",

"RequirementClassification":"SecurityFunctional",

"LESS Requirement":"THE Navigation\_ECU SHALL DETECT malicious control\_signals"

},

{

"Reference":"test-Req\_SEC\_ISO40",

"Requirement":"Req\_SEC\_ISO40",

"Testobjects":["Navigation\_ECU","control\_signals"],

"PRE":{},

"POST":{}

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{

"Requirement":"Req\_SEC\_ISO41",

"RequirementClassification":"SecurityFunctional",

"LESS Requirement":"THE Navigation\_ECU SHALL PREVENT malicious control\_signals FROM being\_transmitted"

},

{

"Reference":"test-Req\_SEC\_ISO41",

"Requirement":"Req\_SEC\_ISO41",

"Testobjects":["Navigation\_ECU","control\_signals","being\_transmitted"],

"PRE":{},

"POST":{}

}

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{

"Requirement":"Req\_SEC\_ISO50",

"RequirementClassification":"SecurityFunctional",

"LESS Requirement":"THE Gateway SHALL DETECT malicious control\_signals"

},

{

"Reference":"test-Req\_SEC\_ISO50",

"Requirement":"Req\_SEC\_ISO50",

"Testobjects":["Gateway","control\_signals"],

"PRE":{},

"POST":{}

}

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[

{

"Requirement":"Req\_SEC\_ISO51",

"RequirementClassification":"SecurityFunctional",

"LESS Requirement":"THE Gateway SHALL drop detected malicious control\_signals"

},

{

"Reference":"test-Req\_SEC\_ISO51",

"Requirement":"Req\_SEC\_ISO51",

"Testobjects":["Gateway","control\_signals"],

"PRE":{"control\_signals":{"safe\_state":false}},

"POST":{"control\_signals":{"safe\_state":true}}

}

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{

"Requirement":"Req\_SEC\_ISO61",

"RequirementClassification":"SecurityFunctional",

"LESS Requirement":"THE Power\_Switch SHALL drop THE detected spoofed Lamp\_switch\_on\_request"

},

{

"Reference":"test-Req\_SEC\_ISO61",

"Requirement":"Req\_SEC\_ISO61",

"Testobjects":["Power\_Switch","Lamp\_switch\_on\_request"],

"PRE":{"Lamp\_switch\_on\_request":{"safe\_state":false}},

"POST":{"Lamp\_switch\_on\_request":{"safe\_state":true}}

}

],

[

{

"Requirement":"Req\_SEC\_ISO72",

"RequirementClassification":"SecurityTechnical",

"LESS Requirement":"THE Gateway SHALL NOT transfer THE signals FROM Navigation\_ECU TO Headlamp\_system EXCEPT FOR signals IN white\_list"

},

{

"Reference":"test-Req\_SEC\_ISO72",

"Requirement":"Req\_SEC\_ISO72",

"Testobjects":["Gateway","signals","Navigation\_ECU","Headlamp\_system","white\_list"],

"PRE":{"signals":{"safe\_state":false}},

"POST":{"signals\_in\_white\_list":{"safe\_state":true}}

}

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