

INSTRUCTIONS:

Fill out the hazard analysis and risk assessment below.

HA-001 should be for the lane departure warning function as discussed in the lecture.

HA-002 should be for the lane keeping assistance function as discussed in the lecture.

Then come up with your own situations and hazards for the lane assistance system. Fill in

When finished, export your spreadsheet as a pdf file so that a reviewer can easily see your

Hazard ID	Situational Analysis			
	Operational Mode	Operational Scenario	Environmental Details	Situation Details
HA-001	OM03 - Normal Driving	OS04 - Highway	EN06 - Rain (slippery)	SD02 - High speed
HA-002	OM03 - Normal Driving	OS03 - Country Road	EN01 - Normal	SD02 - High speed
HA-003	OM03 - Normal Driving	OS04 - Highway	EN01 - Normal	SD02 - High speed
HA-004	OM03 - Normal Driving	OS03 - Country Road	EN01 - Normal	SD02 - High speed

the HA-003 and HA-004 rows.
work.

Analysis			
Other Details (optional)	Item Usage (function)	Situation Description	Function
	IU01 - Correctly	driving on a highway during rain (slippery	Lane Departure
	IU02 - Incorrectly	Normal driving on a country road during	Lane Keeping
	IU01 - Correctly	Normal driving on a highway during	Lane Departure
	IU01 - Correctly	Normal driving on a country road during	Lane Keeping

Hazard Identification			
Deviation	Deviation Details	Hazardous Event (resulting effect)	Event Details
DV04 - Actor	The Lane Departure	EV00 - Collision with	High haptic feedback can affect
DV03 -	Lane Keeping function is	EV00 - Collision with	Driver use the function as if the
DV02 -	The camera sensor stop	EV00 - Collision with	The Lane Departure Warning
DV02 -	The camera sensor stop	EV00 - Collision with	The Lane Keeping Assistance

		Hazard	
Hazardous Event Description	Exposure (of situation)	Rationale (for exposure)	Severity (of potential harm)
The Lane Departure Warning	E3 - Medium	Driving on a highway with rain	S3 - Life-threatening or
The driver do not use the	E2 - Low	The conviation beween driving at	S3 - Life-threatening or
The Lane Departure Warning	E3 - Medium	Driving on a highway with rain	S3 - Life-threatening or
The Lane Keeping Assistance	E3 - Medium	Driving on a highway with rain	S3 - Life-threatening or

dous Event Classification

Rationale (for severity)	Controllability (of hazardous event)	Rationale (for controllability)
Collitions at high	C3 - Difficult to control or	It is difficult to stay calm and react properly when
Collitions at high	C3 - Difficult to control or	When the driver loose focus on driving, it is
Collitions at high	C3 - Difficult to control or	When the driver loose control of the vechicle is
Collitions at high	C3 - Difficult to control or	When the driver loose control of the vechicle is

Determination of ASIL and Safety Goals	
ASIL Determination	Safety Goal
C	The oscillating steering torque from the
B	The Lane Keeping Assistance function
C	The Lane Departure Warning function
C	The Lane Keeping Assistance function