

Levels of Automation

Through the Society of Automotive Engineers (SAE) International, automotive experts from around the world developed a classification system for defining driving automation for motor vehicles. This system has been adopted by the U.S. Department of Transportation and the United Nations.

LEVEL	AUTOMATION TYPE	EXAMPLES	WHERE OPERATIONAL	IF AUTOMATION STOPS WORKING
Driver performs part or all of the dynamic driving task				
0	No driving automation	No driving automation anywhere	Not applicable (no automation)	Not applicable (no automation)
1	Driver assistance	Adaptive cruise control OR lane centering (driver supervises)	Limited roads or modes	Driver resumes performing all of the dynamic driving task
2	Partial driving automation	Adaptive cruise control AND lane centering (driver supervises)	limited roads or modes	Driver resumes performing all of the dynamic driving task
Automated Driving System (ADS) performs all of the dynamic driving task				
3	Automated driving CONDITIONAL	Automated driving in dense freeway traffic (low speeds)	Limited area, roads, and/or modes	Driver takes over after warning
4	Automated driving HIGH	Automated driving within a city center (geo-fenced location)	Limited area, roads, and/or modes	ADS brings vehicle to safe stop
5	Automated driving FULL	Automated driving everywhere	Everywhere on-road	ADS brings vehicle to safe stop



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Find out more at: http://www.sae.org/misc/pdfs/automated_driving.pdf