

ADAS CAPABILITIES & LIMITATIONS

LEVEL 1 DRIVER ASSISTANCE

At this level, the automobile includes some built-in systems that assist in the operation of a vehicle without automating a response. The driver still has complete control of the vehicle, even when equipped with these level-one features.

LEVEL 2 PARTIAL AUTOMATION

At this level of automation, the vehicle is equipped with some automated functions that work together with the driver, giving situation-based assistance when needed. At no point should an operator of a level-two vehicle relinquish all control of the machine, and focus on the road should be kept at all times.

LEVEL 3 CONDITIONAL AUTOMATION

This level allows vehicles to take complete control over operation, but only under certain conditions. This requires the driver to take back total control when prompted.

EXAMPLES OF THIS LEVEL ARE NOT YET AVAILABLE TO THE PUBLIC

BASIC CRUISE CONTROL

Controlled entirely by the driver.

BLIND SPOT MONITORING

Alerts the driver via outside sensors when other vehicles approach their blind spots.

FORWARD COLLISION WARNING

Monitors the vehicle's speed in addition to the speed of the vehicle in front of it and alerts driver of impending crash.

ADAPTIVE CRUISE CONTROL

Automatically adapts to the speed of vehicles in front of you.

LANE-KEEPING ASSISTANCE

Guides vehicle back into its lane after crossing over the line.
Always requires hands on the wheel

AUTOMATIC PARKING

Assists driver with parking by controlling the steering wheel and signalling the driver to stop, go, and switch gears.

LEVEL 4 HIGH AUTOMATION

At this level, a vehicle is capable of completing an entire journey without driver intervention, even operating without a driver at all. Constraints on this level may include geographical location.

EXAMPLES OF THIS LEVEL ARE NOT YET AVAILABLE TO THE PUBLIC

LEVEL 5 FULL AUTOMATION

A Level 5 vehicle is capable of complete hands-off, driverless operation under all circumstances. This is the level where there are no provisions for human control—no steering wheel, no pedals, and no joysticks.

EXAMPLES OF THIS LEVEL ARE NOT YET AVAILABLE TO THE PUBLIC

ADVANCED DRIVER ASSISTANCE SYSTEMS (ADAS):

Systems designed to help drivers safely operate their vehicles through sensed alerts and automated technology.

HYATT, K. (2018, MARCH 29). SELF-DRIVING CARS: A LEVEL-BY-LEVEL EXPLAINER OF AUTONOMOUS VEHICLES. RETRIEVED FROM [HTTPS://WWW.CNET.COM/ROADSHOW/NEWS/SELF-DRIVING-CAR-GUIDE-AUTONOMOUS-EXPLANATION/](https://www.cnet.com/roadshow/news/self-driving-car-guide-autonomous-explanation/)