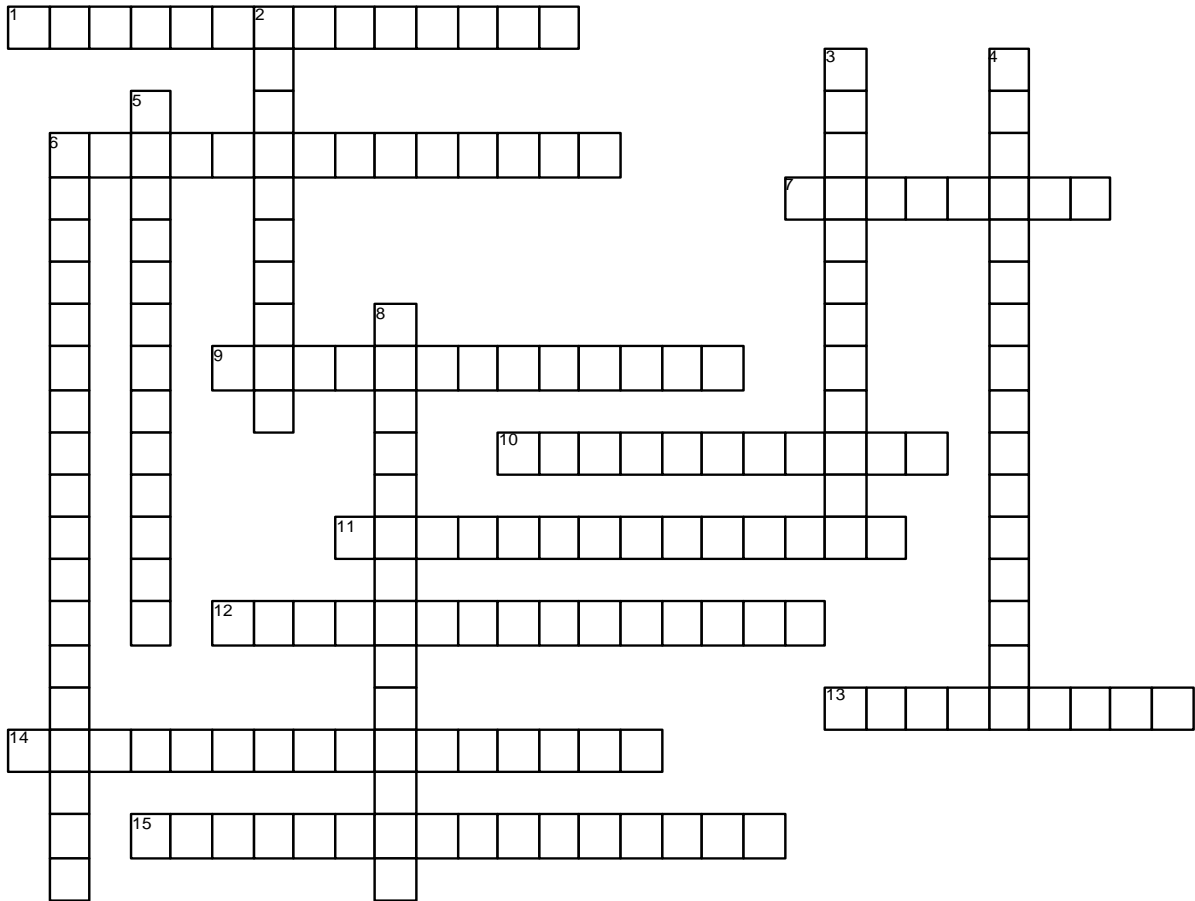


# EV and HEV Driver Assist Systems

## Chapter 18



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### ACROSS

- 1 A vibration is often created in the steering wheel or the driver's seat called a \_\_\_\_\_.
- 6 \_\_\_\_\_ control (ACC), also called radar cruise control, gives the driver more control over the vehicle by keeping an assured clear distance behind the vehicle in front.
- 7 The purpose of \_\_\_\_\_ assist (LKA), also called lane keep assist system (LKAS), is not only to warn the driver if the vehicle is moving out of the lane of traffic, but when there is no response from the driver, to also automatically use the electric power steering system to steer the vehicle back into the lane.
- 9 The \_\_\_\_\_-\_\_\_\_\_ system is used to help drivers avoid contact with another object while moving slowly.
- 10 \_\_\_\_\_-\_\_\_\_\_ vehicles, also called automatic parking vehicles, use the camera(s) and control the electric power steering to guide the vehicle into a parking space.
- 11 The purpose of \_\_\_\_\_ assist

systems (ADASs) is to provide the driver with systems that alert the driver of any potential issues.

- 12 \_\_\_\_\_ parking sensors (EPS) detect when a vehicle is moving slowly and toward an object.
- 13 The \_\_\_\_\_ monitor is a vehicle-based sensor device that detects other vehicles located to the side and rear of the vehicle.
- 14 A \_\_\_\_\_-\_\_\_\_\_ warning (RCTW) system sounds an audible warning when a vehicle is crossing at the rear while backing.
- 15 \_\_\_\_\_ sensors are used to measure the distances to nearby objects and are built into the fender, and front and rear bumper assembly.

### DOWN

- 2 The automotive industry is working to develop \_\_\_\_\_ intelligence (AI) systems for the transportation industry, including automated and autonomous driving systems for passenger cars, commercial trucks, and industrial

applications.

- 3 The \_\_\_\_\_-\_\_\_\_\_ interface (HMI) was very basic in the past because the vehicles were equipped with most of the following to let the driver know what the vehicle (the machine) was doing: Speedometer, Fuel level gauge (HV battery charge level), Outside air temperature, and Tire pressures.
- 4 \_\_\_\_\_ Advice (ISA) uses a sign recognition camera or a navigation system (GPS) to determine the speed limit, which is used to warn the driver of the posted speed limit.
- 5 The \_\_\_\_\_ warning system (LDWS) uses cameras to detect if the vehicle is crossing over lane marking lines on the pavement.
- 6 \_\_\_\_\_ braking (AEB) system intervenes and automatically applies the brakes if needed.
- 8 LiDAR means \_\_\_\_\_ and Ranging or Light Imaging, Detection, And Ranging. LiDAR systems emit light pulses that are reflected off of objects and return for interpretation.