RBE 595 — FAIR-AV
Assignment #5

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Problem 1

Determine the automation level of the traffic jam assistance feature. Please provide your own definition of ODD.

Solution

Operational Design Domain (ODD) are the operating conditions under which a system/feature is designed to function, including but not limited to:

- environmental

- geographical

- time-of-day restrictions

- and/or the requisite presence or absence of certain types of traffic or roadway characteristics

For the traffic jam assistance feature, the ODD would be:

- The feature is designed to function in traffic jam conditions (low speeds, stop-and-go traffic)

- The feature is designed to function in urban environments

- The feature is designed to function in daylight conditions

- The feature is designed to function during rush hour

- The feature is designed to function in the presence of other vehicles

- The feature is designed to function in the presence of pedestrians

- The feature is designed to function in the presence of traffic signals

- The feature is designed to function in the presence of road signs

Additionally, the feature could potentially be able to communicate with other vehicles to coordinate traffic flow. The feature would be able to take over control of the vehicle in traffic jam conditions and would be completely aware of the environmental conditions as outlined in the ODD. However, the driver would need to be present to override control for any corner cases, and the driver would be required to take over control of the vehicle when requested (for example, when the traffic jam clears up).

Since the ODD is limited to traffic jam conditions and can only perform DDT (Dynamic Driving Task) in these conditions, but cannot perform DDT-fallback, the automation level of the traffic jam assistance feature would be Level 3.