cruise

Operational Design Domain - Arizona

Updated June 2024

Cruise intends to operate across the greater Phoenix metro area. Cruise vehicles are designed not to operate outside of their approved area. For example, Cruise's software will prevent the AV from routing to locations or on streets that are outside of the vehicle's active domain, which has been mapped in detail.

Cruise vehicles are designed to operate at all hours and to navigate the unique challenges of city streets. In addition to the constraints identified below, Cruise may also choose to further restrict certain domain constraints to evaluate various aspects of its system. For example, Cruise may opt to limit driverless operations to non-inclement weather conditions, certain times of day and certain routes.

Level of Automation	Cruise vehicles meet the description of a Level 4 automated driving system under SAE International's *Taxonomy and Definitions for Terms Related to Driving Automation Systems for On-Road Motor Vehicles*, standard J3016 (APR2021). Cruise's self-driving system is designed to perform the entire dynamic driving task within a defined operational design domain and has the capability to achieve a minimal risk condition without any expectation that a human driver will intervene.
Minimal Risk Condition	If a Cruise vehicle is in a situation where it has exited its operational design domain, the remote operator has identified an unanticipated change in the operating environment, or it experiences a dynamic driving task performance-related system failure, it is designed to achieve a minimal risk condition. The maneuver performed to achieve minimal risk condition is relative to the residual AV performance, resulting in either a pullover at the nearest available safe stopping location, or a controlled stop in lane. Cruise vehicles are designed to ensure they can safely achieve a minimal risk condition under any single or plausible multi point failure in any hardware or software system. Sophisticated diagnostics are integrated into hardware and software systems that will initiate the appropriate dynamic driving task to bring the vehicle to a minimal risk condition. Additionally, Cruise vehicles host redundant hardware and software systems that support the safe execution of achieving a

	minimal risk condition in the presence of a system failure.
Geographic Area	Cruise vehicles will operate in a geo-fenced area following safety testing and validation.
Roadway Type and Speed	Cruise's intended operating area will include all roads with posted speed limits up to 45 miles per hour.
Time of Day	Cruise vehicles may operate at all times of day and night.
Weather Conditions	During driverless testing, the intended operational design domain of Cruise vehicles will exclude the following weather conditions: - Heavy Fog - Heavy Rain - Dust Storms - Snow / Ice

Cruise's cities of operation include portions of the cities reflected in the map below. Cruise driverless vehicles will only operate in a geographical location following Cruise's safety testing and validation. Presently, Cruise operates driverless vehicles in the cities of Chandler, Gilbert, Guadalupe, Mesa, Paradise Valley, Phoenix, Scottsdale, and Tempe.