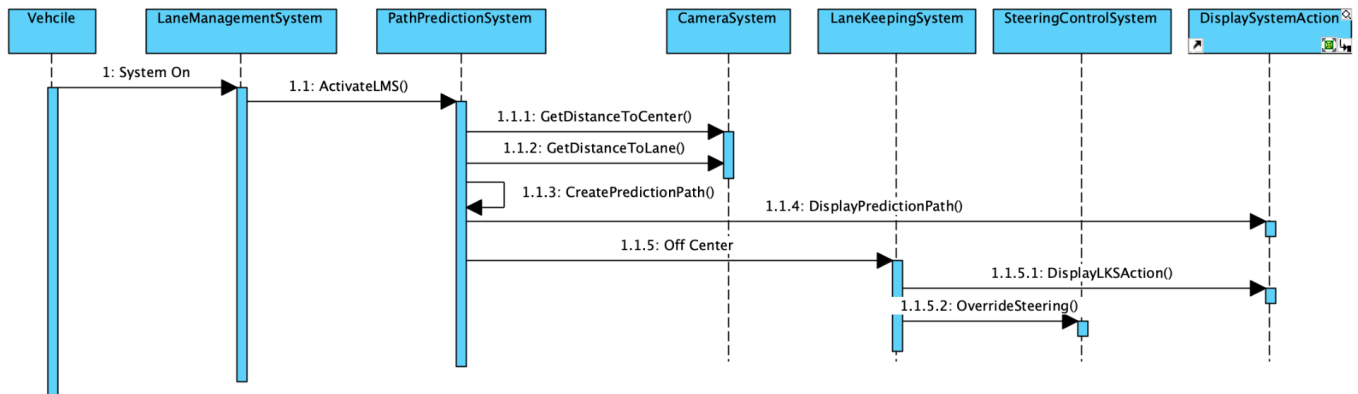


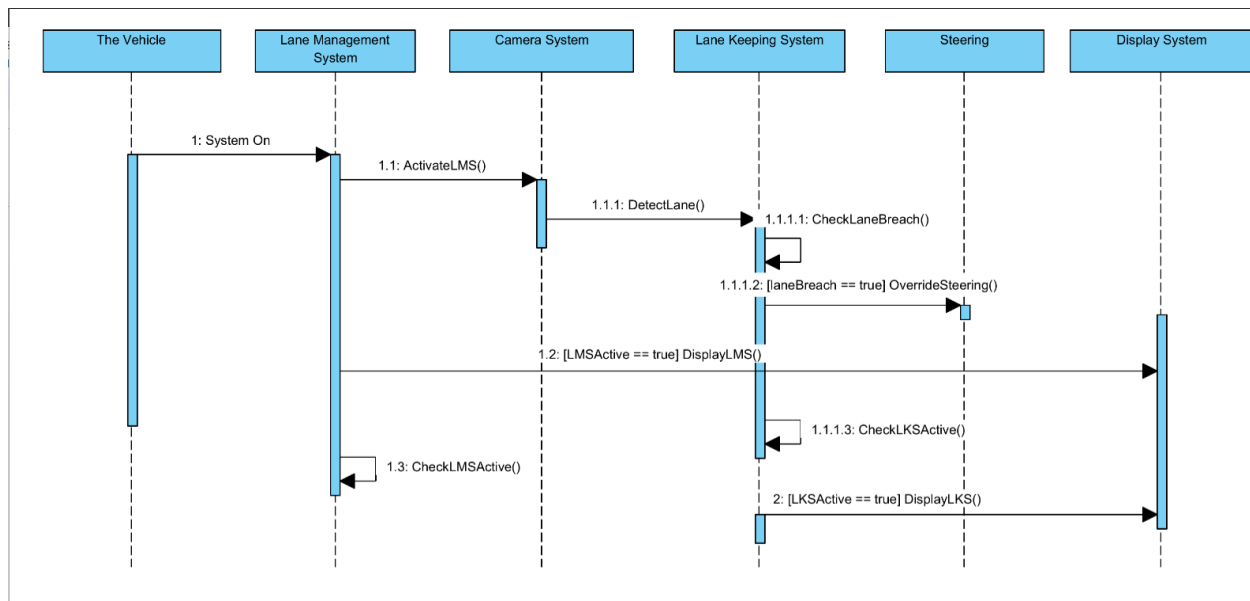
## LMS2 Sequence Diagrams

### Lane Centering



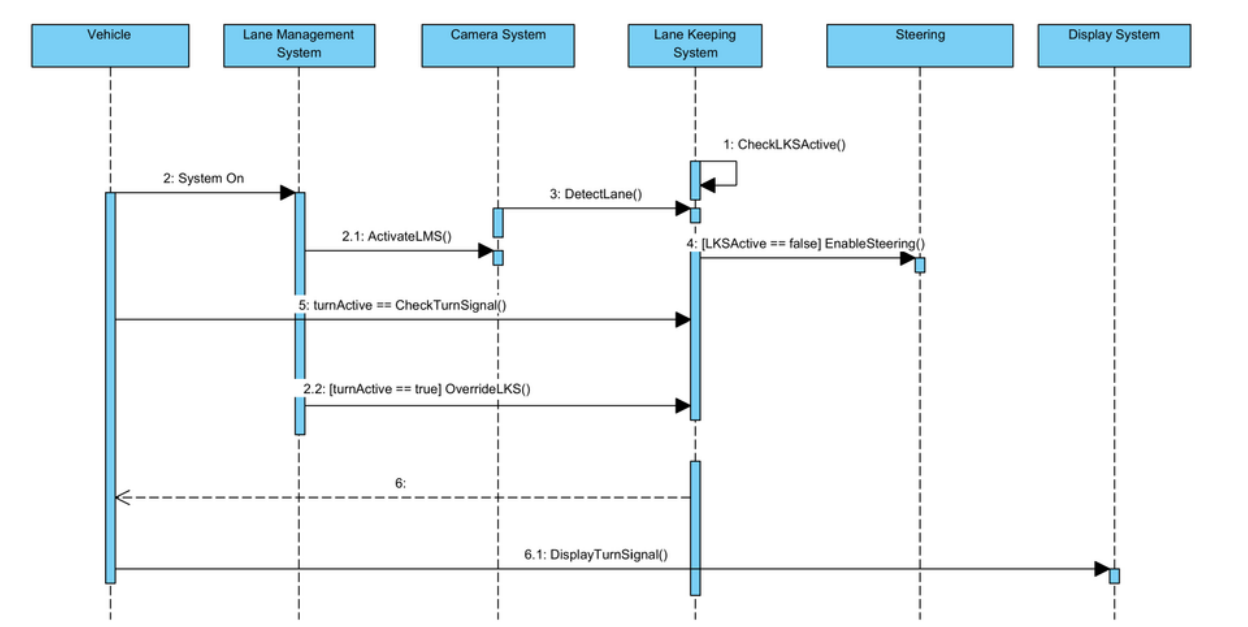
- The path prediction system calculates and updates the path frequently via the UI.
- When the vehicle is moving towards either the left or the right lane markers, the LKS overrides the steering to center it back to the center through the path prediction system.

### Switching Lanes



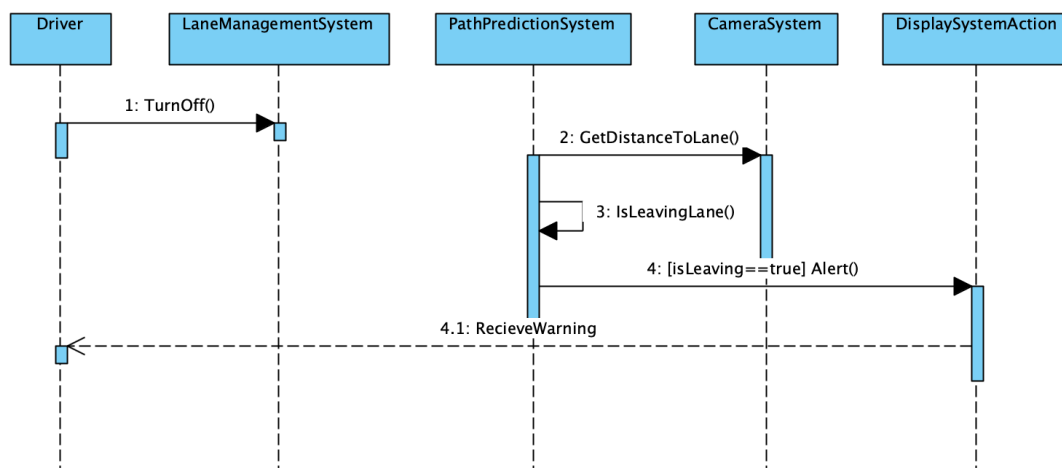
- When moving to another lane, it detects the lane and sees that it is being breached which indicates that the car is switching lanes. This then overrides the steering and so the system does not take control of the steering
- It checks whether if the LKS is active or not

### LMS is turned off when the turning signal is on



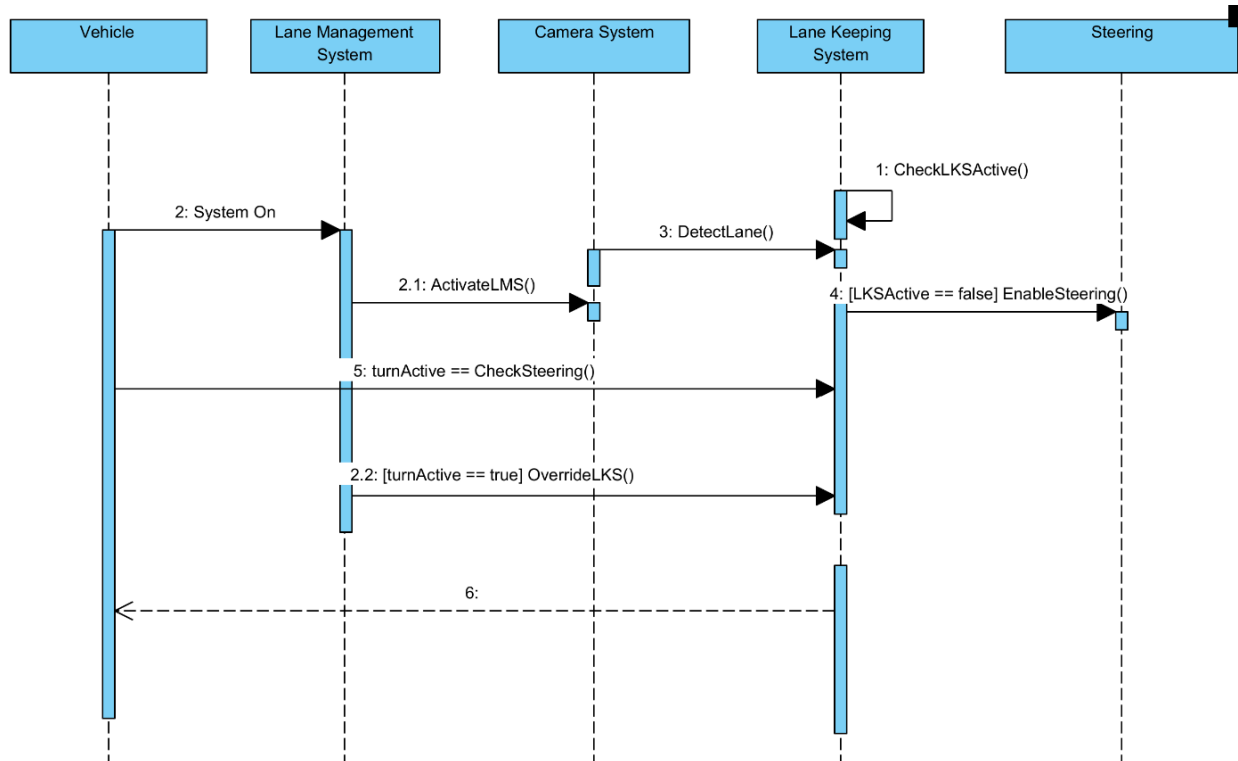
- The LMS system is overwritten and does not center when the left or right turn signal is on
- When the left or right turn signal is on, the lane keeping system is overwritten and does not allow for the steering to be taken control by the system

### LMS is turned off by driver via UI



- The driver can turn off LMS via the UI. When LMS is turned off, Lane Departure Warning is still on and displays warning if the vehicle leaves the lane.

### LMS is overwritten by steering handle by user



- When the user holds onto the steering wheel and personally moves the car back into the center, the LMS system is overwritten and does not take control of the steering wheel.
- The user can override the system by steering