Overview of LMS1
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LMS Overview

● Provides a safer driving experience
  ○ Lane Centering System (LCS), Lane Keeping System (LKS), Lane Departure Warning System (LDWS)

● Why is it needed?
  ○ Distracted drivers
    ■ Texting, fatigue, etc.
Features of LMS

- **Lane Keeping System (LKS)**
  - Returns vehicle back to desired position
- **Lane Departure Warning System (LDWS)**
  - Communication of warnings to user
- **Lane Centering System (LCS)**
  - Maintains desired position within lane markings
The Need For LMS

• Inattentive and Fatigued Drivers
• Cater the System to Those Who Need it.

• Constraints
  – LMS Cannot Be Used in Every Scenario
  – LMS is Only in Production Vehicles
  – LMS Gives the Driver Control
Use Case Diagram
LMS Display

- LMS displays messages on the car’s screen.
- Example messages are shown at the top left of our prototype.
Scenario: Maintaining Lane
Scenario: Approaching Lane Markings (No Blinker)
Scenario: Attempting to Cross Markings (No Blinker)

- LKS Engages
  - Takes control of the car and returns to their lane
- LMS Prompts user with a button to disable LKS’s control of the car.
Scenario: LKS is Disabled by Driver
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