

# TRUCK PLATOONING

## UTILIZING COOPERATIVE ADAPTIVE CRUISE CONTROL

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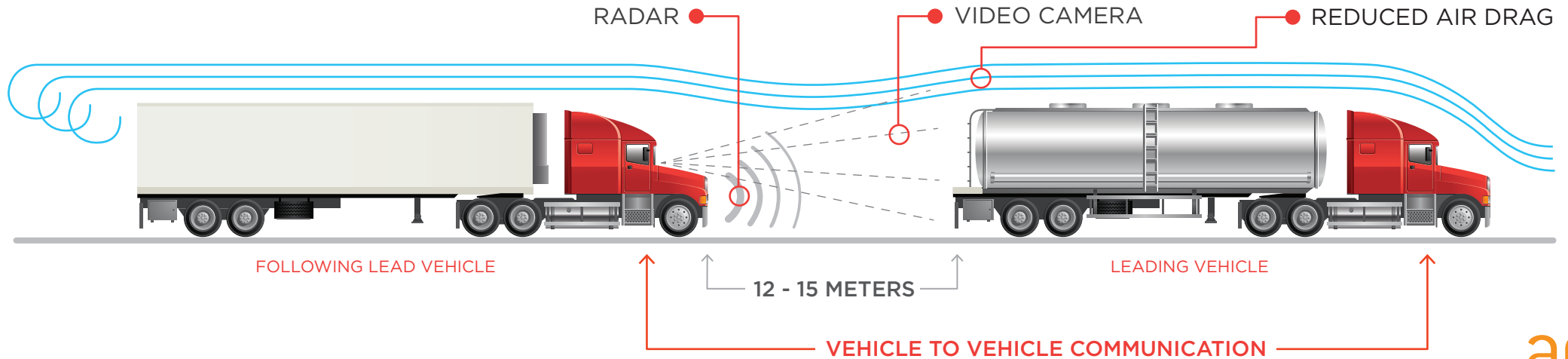
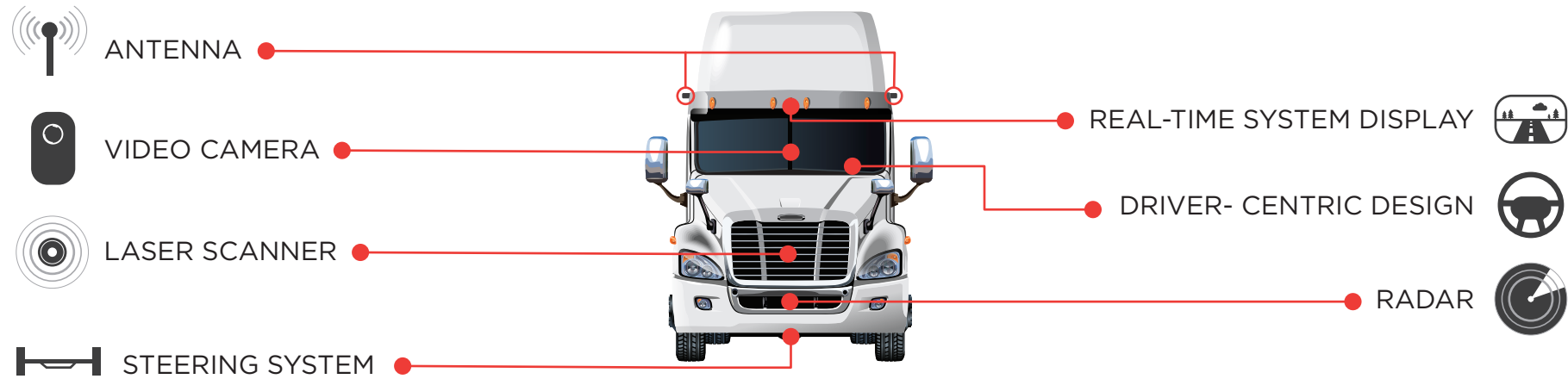
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# PARTIALLY AUTOMATED TRUCK PLATOONING

- Connected vehicle technology enables the vehicle to continuously communicate and coordinate travel with other trucks to follow each other at close proximity
- **Level 1 – Driver assistance**
  - **Vehicle** controls coordinated speed and braking with the lead vehicles
  - **Driver** maintains steering control at all times (always ready to take full control)
- **Level 2 – Partially automated**
  - **Vehicle** handles all steering, braking, and acceleration tasks
  - **Driver** responsible for watching traffic and responding to system prompts

# KEY COMPONENTS

<https://www.youtube.com/watch?v=eBfUSo4sFTU>



# TRUCK PLATOONING IMPLEMENTATION

## BENEFITS

- Public - Improved road efficiency and travel time, reduced congestion and greenhouse gases
- Fleet operators - Reduced fuel usage, delivery times, and operating cost, increased driver retention
- Truck Drivers - Reduced driving workload and fatigue
- Safety - V2V, vehicle detection, and collision avoidance technologies

## CONCERNS

- Technology still in testing phase
- Driving in Metropolitan, urban and/or congested areas
- Interaction with other motor vehicles, traffic impediment
- Safety
  - Lack of platooning indicator or signage requirements
  - Smaller vehicles cut in between



# PILOT PROGRAMS AND TESTING

- CALTRANS and FHWA
- Wyoming DOT and FHWA
- Michigan DOT and FHWA, Peloton
- Florida DOT and Peloton
- Tennessee DOT (waiting for technology)
- Texas DOT, FHWA and Texas A&M TTI (Level 2 testing)

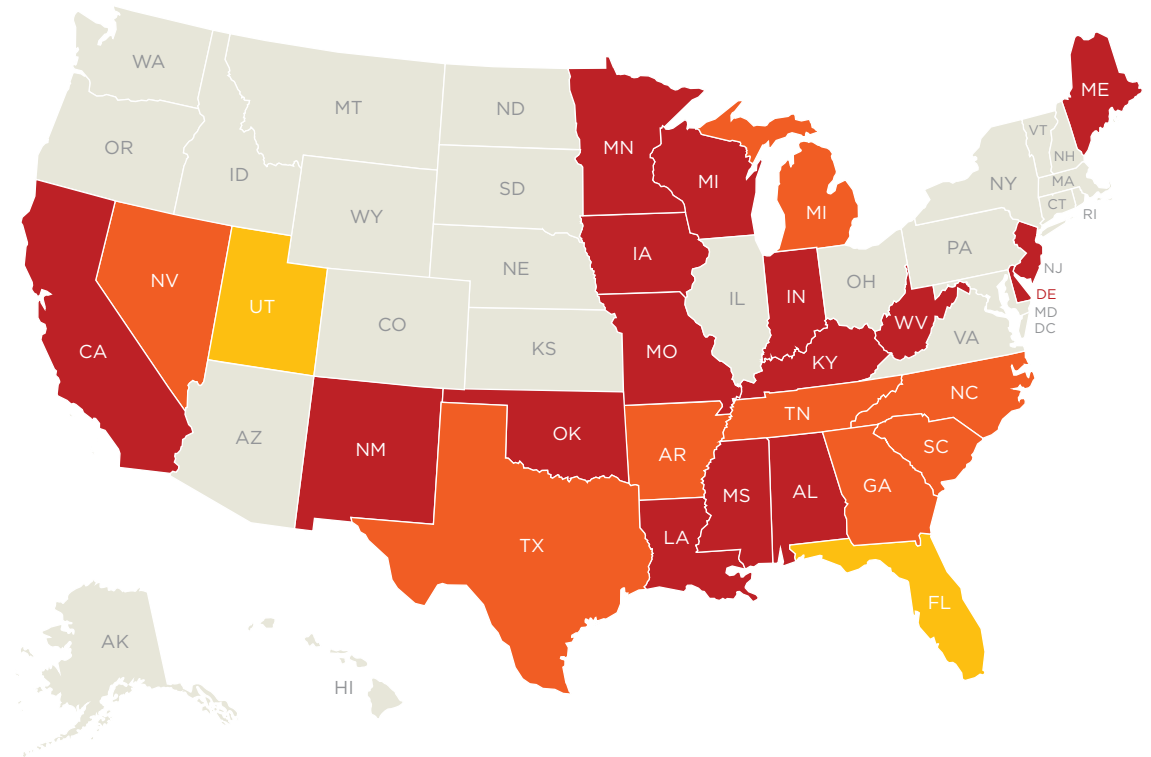
## Beyond testing

- Peloton is predicting it will go live with a commercial customer around midyear, probably in Texas
- Michigan could have trucking firms and the military operating with the technology this year (Michigan DOT)
- Memphis-based FedEx Freight and Arkansas-based Walmart, have plans to use the technology

# ENABLING LEGISLATION

- Autonomous vehicles or connected technologies, are generally not expressly prohibited, however:
  - Many states have following too closely statutes (FTC) (motor vehicle codes)
- Some states have begun revising their FTC rules to allow for platooning or its testing
- States working on possible agreements for multi-state testing
  - I-10 corridor L.A. to Houston
  - I-40 corridor TN, AR and OK
- Current Oklahoma statutes are interpreted to prohibit

- Authorizes platooning or provides FTC exemption.
- Authorizes platooning testing/pilot program
- FTC statutes interpreted to prohibit platooning



# EXAMPLE LEGISLATION

## TENNESSEE

- Authorizes a person to operate a platoon on the streets and highways of this state after the person provides notification to the department of transportation and the department of safety

## ARKANSAS

- A person may operate a driver-assisted truck platooning system on a street or highway by submitting a plan for approval by the Arkansas Highway Commission, or 45 days must pass after the plan is submitted to the commission, and the plan has not been rejected



# QUESTIONS?

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You can find this presentation at [acogok.org/truck-platooning](http://acogok.org/truck-platooning)

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