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# AV Validation

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A large, white, stylized script logo of the word "Ford" is centered on the page. The background consists of a blue gradient with abstract, flowing, wave-like patterns that create a sense of motion and depth.

# Driving Rules/Guidelines

## What Every Driver Must Know

Emergency vehicles.....	28
School buses.....	28
School bus signals.....	29
Right of way.....	29
Right of way when turning.....	29
Right of way at intersections.....	30
Be prepared to yield.....	30
Right of way and pedestrians.....	31
Right of way and funerals.....	31
Passing on the left.....	31
Passing on the right.....	32
When passing is prohibited.....	32
Lane usage.....	32
Turning.....	33
Right turns.....	33
Left turns.....	34
Changing lanes.....	34
Roundabouts.....	35
Railroad crossings.....	35
Railroad crossing advance warning sign.....	35
Passive railroad crossing control systems.....	36
Active railroad crossing control systems.....	36
Trains and vehicles DO NOT MIX: Grade crossing safety tips.....	36
If you are stuck on the tracks.....	36
What is an Emergency Notification System sign?.....	37
Parking.....	37

## What Every Driver Must Know

Parking on a hill.....	37
Parallel parking.....	37
Disability parking.....	38
Van-accessible disability parking.....	38
Parking violations.....	38

## Chapter 5: Signs, Pavement Markings and Signals

Traffic signs.....	41
Route markers.....	42
Traffic sign colors.....	42
Regulatory signs.....	42
Traffic sign challenge.....	43
Traffic sign challenge answers.....	44
Pavement markings.....	45
White lines.....	45
Broken white lines.....	45
Solid white lines.....	46
Double solid white lines.....	46
Lines to help separate and protect.....	46
Crosswalk lines.....	46
Stop lines.....	46
Directional arrows.....	47
Bicycle lanes.....	47
Sharrows.....	47
Yellow lines.....	47
Broken yellow lines.....	47

## What Every Driver Must Know

Solid yellow lines.....	47
Left turn only center lane.....	48
Yield lines.....	48
White triangular symbols.....	48
Dashed white lines.....	48
Traffic signals.....	48
The 5-section-head signal.....	49
Flashing red light.....	49
Flashing yellow light.....	49
Steady green arrow.....	49
Flashing yellow arrow left-turn signal head.....	49
Pedestrian signals.....	50
Pedestrian Hybrid Beacon.....	50

## Chapter 6: Sharing the Road

Commercial vehicles.....	53
Passing a commercial vehicle safely.....	54
Slow-moving vehicles.....	54
Pedestrians.....	54
Children.....	55
Motorcycles, scooters, mopeds and bicycles.....	55
Moped or scooter?.....	56
Just about bicyclists.....	56
Autocycles.....	57

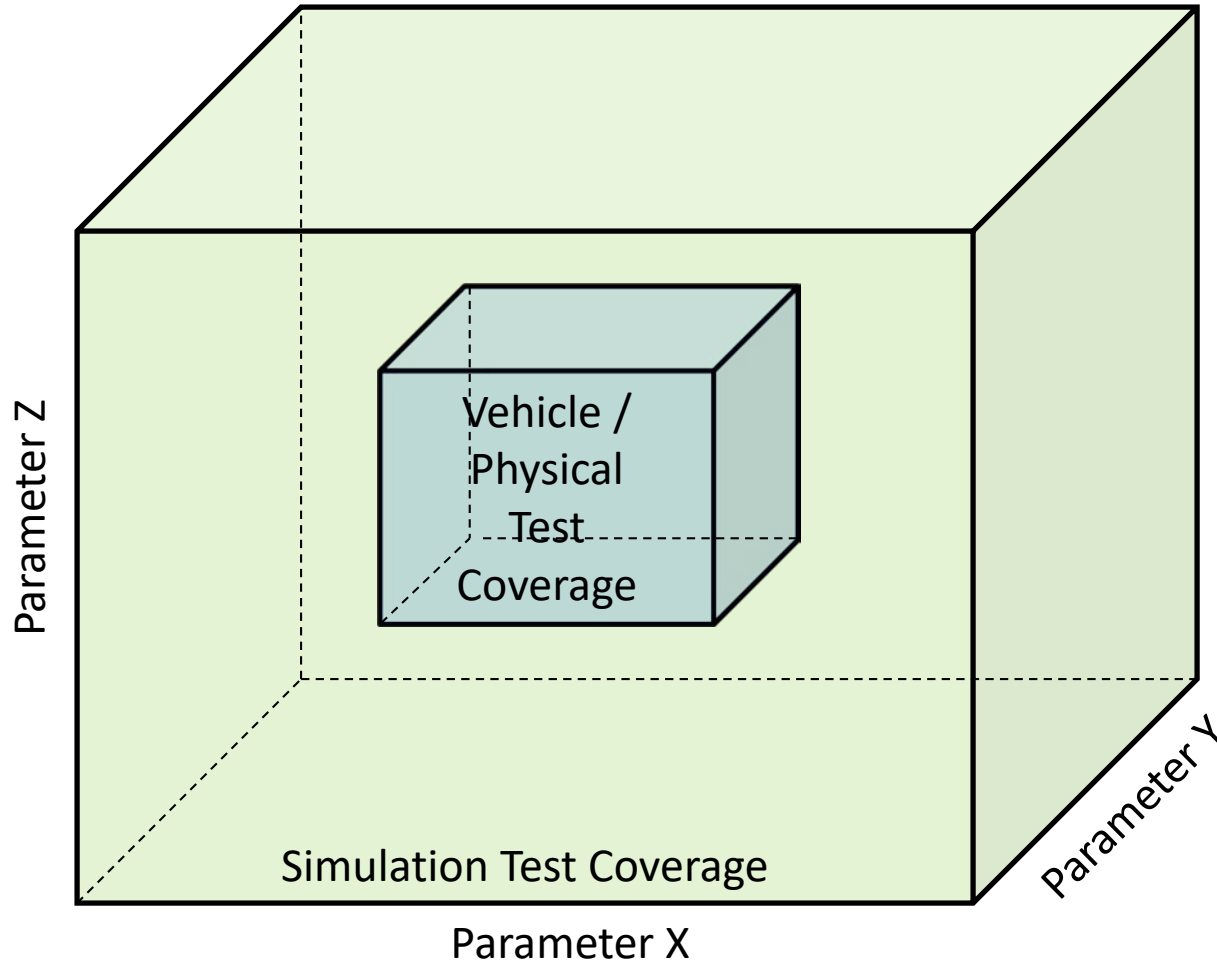
Established State Tests (Written and On-Road) Are  
A Defined Source Of Driving Validation Tests.

# Emergency/Evasive Maneuvers for “Edge Cases”

- AEB
  - Vehicle
  - Pedestrian
  - Intersections/Crossings
- Avoiding Crash Scenarios
  - VTTI Naturalistic Driving Database
  - Volpe Study
  - AV Developers Contributing Data From Real-World Incidents

Data Sets Can Provide Validation Tests For “Edge Cases”.

# Simulation vs Vehicle Tests



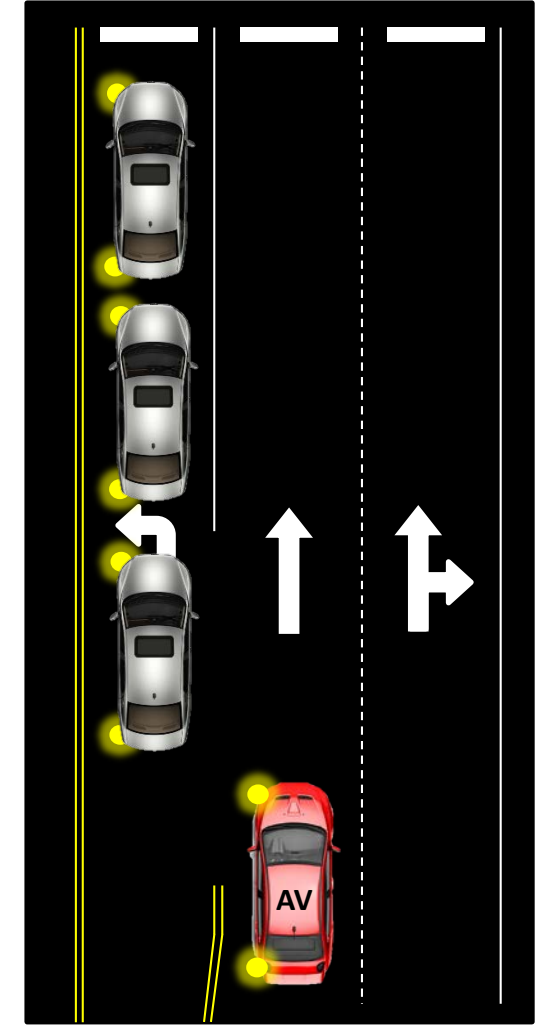
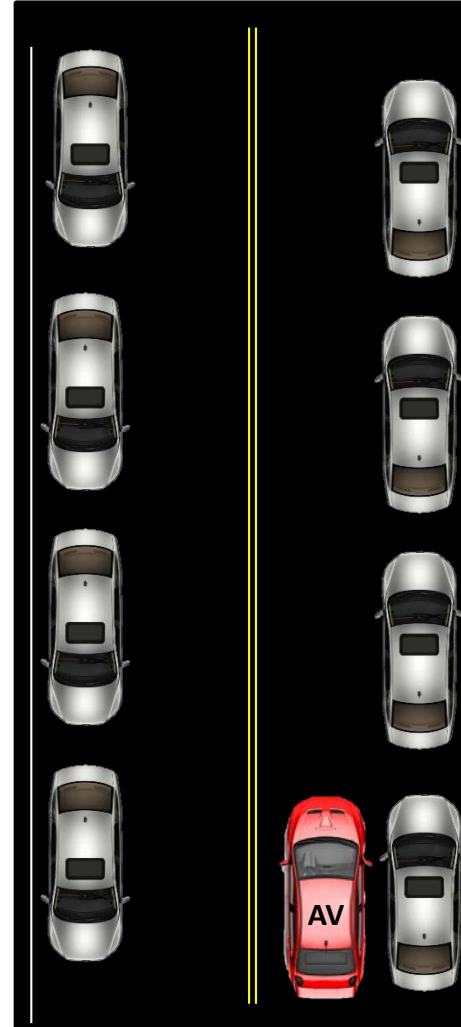
- Simulation:
  - Increases coverage across production vehicle tolerance bands and traffic scenarios
  - Allows analysis of combinations that may be difficult to obtain otherwise
  - Conclusions require correlation to actual system components, which is often challenging.
  - Not always a substitute for real-world testing where local norms/behavior occur.

Automotive Safety System Developers Have Successfully Used Simulation For Decades To Help Ensure Performance Goals In Complex Systems.

# Driving Behavior/Norms

- Anticipating potential behavior of other road users
- Enhancing traffic flow and safety:
  - Wide berth when overtaking parallel-parked vehicles, cyclists, etc.
  - Encroaching upon, or crossing over, oncoming traffic lane lines when appropriate.
  - Maximize the pavement

Desirable Driving Behaviors/Norms are Often Region-Specific.  
Situation Flexibility Can Benefit AVs, As Afforded to Human Drivers Today.



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# Other AV Industry Business Factors



Like Any Customer-Facing Businesses, AVs Will Likely Thrive or Fail Based on Numerous Competitive Factors, Customer/Municipal Expectations and Mobility Alternatives