

ARE WE THERE YET?

- THE CURRENT STATE OF AUTONOMOUS VEHICLES -

What We Thought AV Would Be Like:



1990

Total Recall
Johnny Cab



1982

Knight Rider
KITT



1969

The Love Bug
Herbie



1966

Batman
Batmobile

What AV Is Really Like:



What AV Is Really Like:



ADAS vs. Autonomous

ADAS:
You are driving when driver support features engaged

Autonomous:
You are not driving when automated features engaged



LEVEL 0

Warnings and momentary assistance

LEVEL 1

Steering or brake/acceleration

LEVEL 2

Steering and brake/acceleration

LEVEL 3

Automated driving under limited conditions – driver may need to take over when requested

LEVEL 4

Automated driving under limited conditions – will not require driver to take over

LEVEL 5

Automated driving under all conditions

Where Are We Now? (for us regular folks)

ADAS:
You are driving when driver support features engaged

Autonomous:
You are not driving when automated features engaged



LEVEL 0

Warnings and momentary assistance

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Non-Consumer Technology:



Hub-to-Hub

Simple Routes /High Speed

Safety Driver



Shuttle/Taxi

Limited Routes/All Speeds

Safety Driver



Delivery

Simple Routes/Low Speed

Teleoperation



Traffic Control

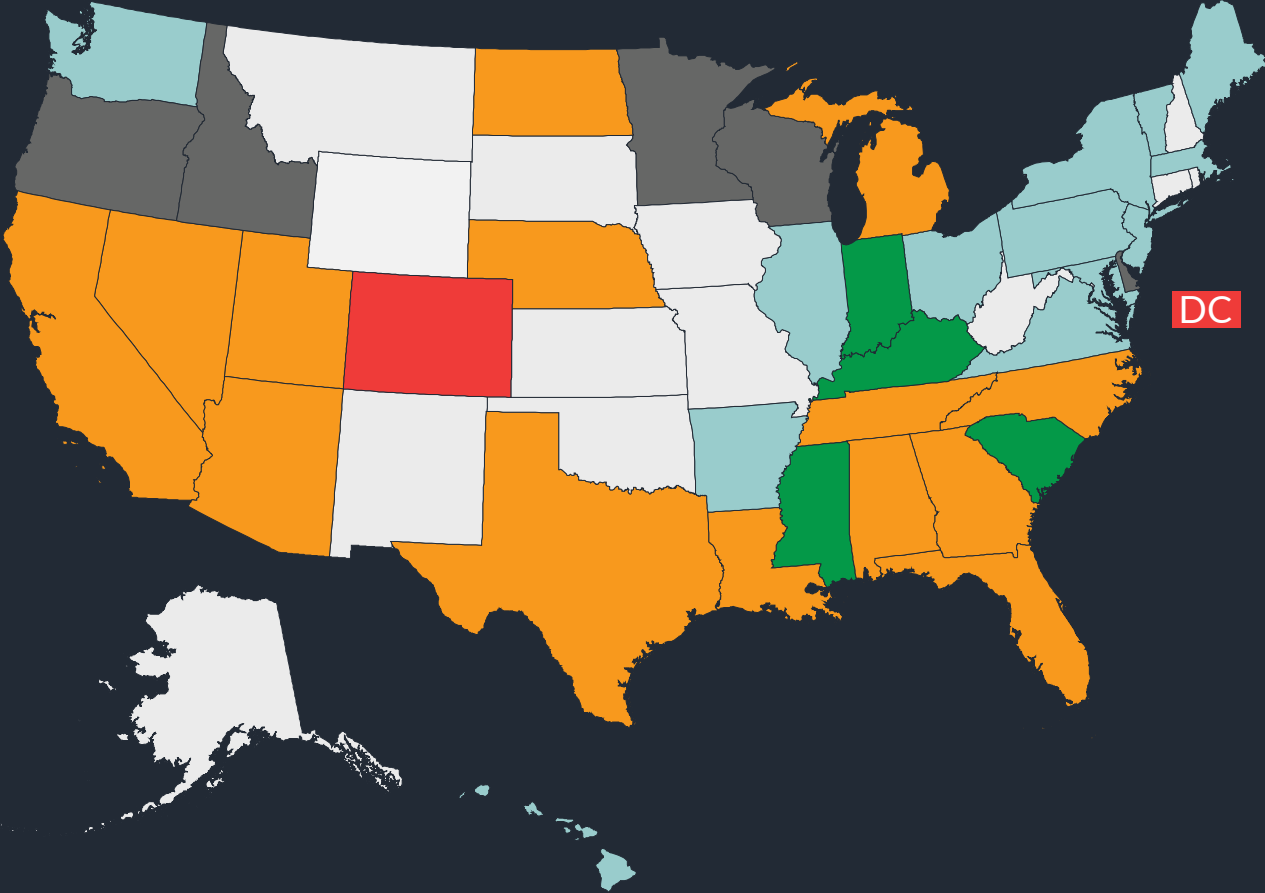
All Routes and Speeds

AI – Self-Managed

AV In The US

AV LEGISLATIVE ACTIVITY BY STATE

- Full Deployment Without Driver
- Full Deployment With Driver
- Regulating Truck Platooning
- Testing
- Study Authorized



Why Is It All So Confusing?

SO MANY NAMES FOR THE SAME THING

ADAS Feature	Unique Names
Automatic Emergency Braking	40
Adaptive Cruise Control	20
Surround View Camera	20
Lane Keeping Assistance	19
Blind Spot Warning	19
Automatic High Beams	18
Rear Cross Traffic Warning	15
Driver Monitoring	13
Semi-Automated Parking Assist	12
Forward Collision Warning	8
Night Vision and Pedestrian Detection	5

SAE Level 2 – ADAS Symbols

The image displays a grid of 110 ADAS symbols from various car brands, categorized by function. The brands shown are Mercedes-Benz, Tesla, Cadillac, Audi, Toyota, Hyundai, BMW, Nissan, Ford, and Volvo. The categories include ACC (Adaptive Cruise Control), LCA (Lane Keeping Assistance), Automation Monitor, Hands Alert, and Misc. (Miscellaneous). The symbols are arranged in a grid with 11 columns corresponding to the brands and 5 rows corresponding to the categories. The symbols are color-coded: white for basic functions, green for active/ready states, and red for warnings/alerts.

Why Is It All So Confusing?

NAMES THAT MISREPRESENT FUNCTION

Tesla Autopilot

Nissan Pro Pilot

Super Cruise

Distance Pilot

Pilot Assist

And the most egregious name:

Tesla Full-Self-Driving – still just level 2



What Does The Future Hold?

FULL LEVEL 4 AUTONOMY:



FIXED ROUTE SHUTTLE

Two to three years away



ROBOTAXI

Five to six years away

GOODS DELIVERY

Two to three years away



HUB-TO-HUB TRUCKING

Four to five years away



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