



## CLECAT Club

*Exploring the technology that touches your life*



# Self Driving Cars: Are They Ready for Primetime?

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What does “self driving” mean?

What self driving options are available?

How well does Tesla Full Self Driving work for me?

# What Does “self driving” mean?

- ▶ The Society of Automotive Engineers ([SAE](#)) defines 6 levels of driving automation ranging from 0 (fully manual) to 5 (fully autonomous). These levels have been adopted by the U.S. Department of Transportation.

# LEVELS OF DRIVING AUTOMATION



0

## NO AUTOMATION

Manual control. The human performs all driving tasks (steering, acceleration, braking, etc.).



1

## DRIVER ASSISTANCE

The vehicle features a single automated system (e.g. it monitors speed through cruise control).



2

## PARTIAL AUTOMATION

ADAS. The vehicle can perform steering and acceleration. The human still monitors all tasks and can take control at any time.



3

## CONDITIONAL AUTOMATION

Environmental detection capabilities. The vehicle can perform most driving tasks, but human override is still required.



4

## HIGH AUTOMATION

The vehicle performs all driving tasks under specific circumstances. Geofencing is required. Human override is still an option.



5

## FULL AUTOMATION

The vehicle performs all driving tasks under all conditions. Zero human attention or interaction is required.

THE HUMAN MONITORS THE DRIVING ENVIRONMENT

THE AUTOMATED SYSTEM MONITORS THE DRIVING ENVIRONMENT

# What self driving options are available?

- ▶ Tesla Full Self Driving and Cadillac Super Cruise qualify as Level 2.
- ▶ Audi A8L has Level 3 but is only available in Europe.
- ▶ NAVYA, Waymo, and Magna have Level 4 systems but only within certain “geofenced” locations.
- ▶ Others are in various stages of development.

# How well does Tesla Full Self Driving beta (FSD) work for me?

- ▶ I've been using FSD beta for about a year.
- ▶ My wife is uncomfortable with it so I don't use it when she is in the car (which she is most of the time).
- ▶ It generally gets me to my destination without me needing to intervene, but I feel compelled to supervise it quite closely. It definitely needs to up its game before I would be willing to back off the close supervision.
- ▶ There have been a number of over the air software updates that keep making significant improvements to its performance.

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Questions and  
Comments?