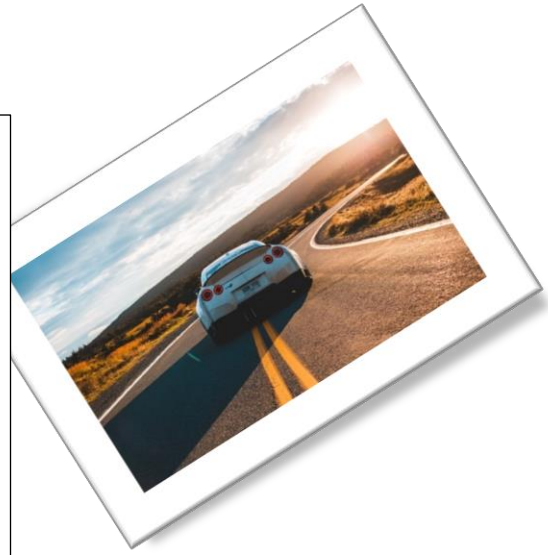
Autonomous cars and AI

History of Autonomous Cars

In 1939, the American car manufacturer, General Motors created the first self - driving car. The car was an electric vehicle guided by radio-controlled electromagnetic fields embedded in the road.

In 1977, a Japanese company used a camera system that relayed data to a computer to process images of the road. The computer then decided specific actions to take. The car could only travel below 20MPH

In the 1980s, a German company developed the VaMoRS, fitted with cameras that could drive itself at 56MPH.

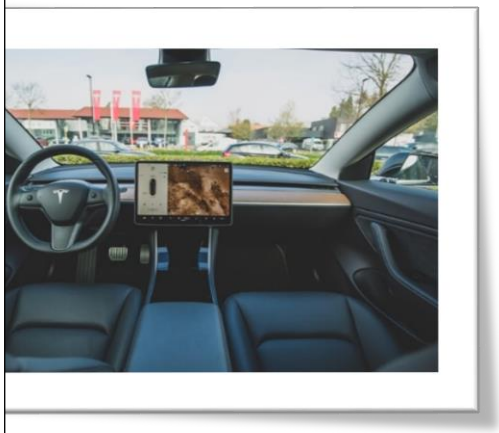


TESLA Autonomous Car

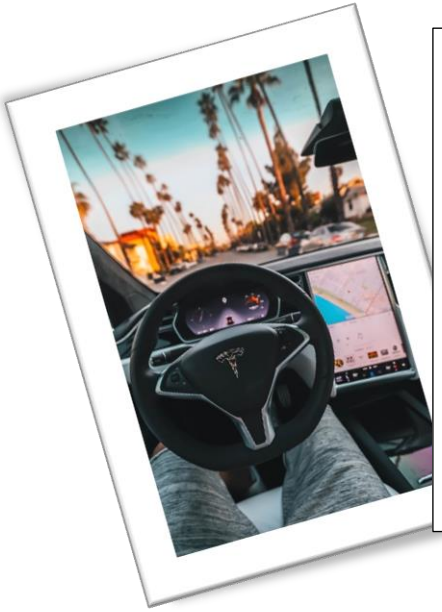
Tesla Autopilot developed by the American electric car giant is one of the most technologically advanced self-driving features developed. Although the car is always not fully self-driving, owners have the chance to turn on the feature on in certain settings (e.g. motorways).

The system uses 8 cameras, a radar, 12 ultrasonic sensors and a powerful onboard computer to make decisions. The car can:

Automatically change lanes, park automatically, stop at traffic lights/stop signs and move out of a tight space automatically.



SSE & Automation



How AI works in the TESLA Self Driving feature

The range of cameras, sensors, and radars as well as powerful on-board computer help the car make thousands of decisions in a matter of milliseconds.

AI technology analyses the images of the road and the recordings from the sensors to determine what the most effective decision is. If the driver commands the car to change lanes, the cameras will determine whether there is enough space to do safely whilst the sensors detect if there is any on-coming traffic next to the vehicle.

The lines on the road are vital to help the driverless car stay within the designated lane.

Self-Driving Mode

Scan the QR code to see self-drive mode option activated in a TESLA vehicle. The video demonstrates the car driving in several settings without the aid of the driver.

Scan me!

Questions to think about

(1) What do you think might be some of the dangers of a fully automated car?

(2) What kind of decisions can a human being make that might be different to that of a computer?

(3) What benefits of driverless cars exist?

(4) Would you feel safe?!