TECHNICAL SPECIFICATIONS

Equipments:

- 2-axis moving platform that can simulate the real driving and engine dynamics of the vehicle
- Computer
- Steering wheel, pedals and gear shifter, turn signal switch
- Seat with seat belt
- 21,5" Touchscreen
- 49" Curved monitör
- Meta Quest 3 VR headset
- Electronic and mechanical parts of the simulator

Scenarios:

1. Overspeed simulation
2. Drowsy driving simulation
3. Drunk driver simulation
4. Following distance simulation
5. Ambulance simulation
6. Seat belt simulation
7. Traffic police simulation
8. Loud music simulation
9. Blind spot simulation
10. Sudden braking simulation
11. Distracted driving simulation
12. Tire burst simulation
13. Brake failure simulation
14. Aqua Planing simulation
15. Tipping simulation
16. Parallel and L parking simulation

Note: Specifications are subject to change.

17-03-2026
Tesca Technologies Pvt. Ltd.
IT-2013, Ramchandrapura Industrial Area, Sitapura Extension,
Near Bombay Hospital, Vidhani Circle, Jaipur-302022, Rajasthan, India,
Tel: +91-9829132777; Email: info@tesca.in, tesca.technologies@gmail.com
Website: www.tescaglobal.com

01. Overspeed Simulation
In order to show the user how low the perception-reaction time is at high speeds, the speed of the vehicle is increased to 200 km/h in this module. While traveling at this speed, pedestrians suddenly appear on the road to cross the road and the reaction time of the user is measured.

02. Drowsy Driving Simulation
The screen often goes black and comes back to simulate insomnia. In this way, the situation of a sleepless person with their eyelids half open or frequently closed is simulated. From time to time, these blackouts (micro-sleep) take a long time and the driver has to drive in such a flowing traffic.

03. Drunk Driver Simulation
Driving while drunk. The image is blurred. Images interpenetrate and phantom lights etc. is shown. This makes it difficult to control the vehicle.

04. Following Distance Simulation
Failure to keep following distance. If the following distance is not maintained, the vehicle in front of the driver brakes suddenly and causes an accident.

05. Ambulance Simulation
Not giving road priority to vehicles with right of way. In certain parts of the road where there is no safety lane to be checked whether it complies with the rule of passage, an ambulance comes from behind, and whether the driver gives way to the ambulance or how it gives way, etc. status is recorded.

06. Seat Belt Simulation
Not using a seat belt. If the seat belt is not fastened, a vehicle that has entered the wrong road crashes into the user's car at high speed from the front and the user is simulated to be thrown out of the windshield.

07. Traffic Police Simulation
Failure to comply with the warnings and signs given by the officers on duty. A traffic police officer on the route is expected to obey their signs.

08. Loud Music Simulation
Listening to loud music in the car. A very loud music is played on a part of the road and at the same time the clip of the song is played on the in-car screen. How this distraction affects the driver's driving can be experienced.

09. Blind Spot Simulation
Changing lanes without blind spot checking. The vehicle traveling at the same speed as the vehicle and moving in the blind spot is simulated. The reaction to be given when a lane change is requested is controlled.

10. Sudden Braking Simulation
Making sudden and unnecessary brakes. The collision of the vehicle behind is simulated during sudden and unnecessary brakes.

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11. Distracted Driving Simulation
Passengers exhibiting attitudes and behaviors that will negatively affect the driver's. The virtual passenger sitting next to the driver makes movements that will distract the driver. The user's response is measured.

12. Tire Burst Simulation
Tire burst while driving. While driving, the tire of the vehicle is blown and the reaction of the driver is measured.

13. Brake Failure Simulation
Fault in braking system while driving. While driving, the vehicle's braking system will fail and the driver's response is measured.

14. Aqua Planing Simulation
Aqua Planing risk in rainy weather. There is a pond in an area on the route. As soon as the vehicle enters this puddle, the tires start to slide instead of turning as a result of aquaplaning. In this way, loss of control in puddles is simulated.

15. Tipping Simulation
Risk of tipping over corners. If the driver enters corners at high speed, the vehicle will roll over.

16. Parallel and L Parking Simulation
The driver's parallel and L parking skills will be measured.

Features

- Equipped with a 2-axis motion platform (pitch and roll) for realistic driving simulation.
- Allows the driver to feel road conditions such as bumps, potholes, uneven surfaces, and terrain changes directly from the simulation.
- Acceleration, deceleration, cornering, and collision effects are realistically simulated through dynamic motion feedback.
- Forward–backward (pitch) and left–right (roll) movements provide instant and highly realistic response to driving scenarios.
- Motion behavior is fully synchronized with the simulation software to ensure real-time feedback.
- Powered by a custom-designed motion system developed exclusively by Us.
- The motion platform consists of industrial-grade motors, motor drivers, encoders, sensors, and spring mechanisms.
- Motion sensitivity can be adjusted according to training requirements:
  - High sensitivity
  - Medium sensitivity
  - Low sensitivity
- Includes both mechanical and electronic safety systems to ensure operator and trainee safety at all times.

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2-Axis Motion platform

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Technical Specifications

- Driving in virtual reality or with a screen
- Professional simulation software
- Driving analysis and recording system (the simulator will be able to rate/score the driver's performance and spool out the areas of weakness)
- Professional simulator software can simulate the real driving and engine dynamics of the vehicle, all physical mechanics are animated similarly.
- Driving in Sedans, SUVs and Trucks
- All data collected during the movement can be used for measurement and evaluation and are presented on the admin screens for evaluation after the simulation.
- The simulation can be recorded from beginning to end and watched again.
- All data of the drive are analyzed instantly. Mistakes made by the driver are recorded and can be examined in detail on the analysis screens.
- User information entry, vehicle selection, simulation selection, weather selection, time selection can be done easily.
- Thanks to the scenario management feature (especially scenarios such as sudden braking, night and tired driving, and the vehicle skidding and overturning in the corner...) and the generation module, simulations of the driving environment and driving ability in different weather conditions can be created.

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