

6DOF Heavy Vehicle Driving Simulator

A 6DOF motion driving training system with a 40-inch TV for commercial vehicle training.



Physical controls, driving visuals and six-degree-of-freedom motion feedback support training in a controlled environment.

Display system

40-inch TV

Gear selection

Manual with high / low range selection

Product form

6DOF motion

Vehicle class

Heavy / commercial vehicle

Driving layout

LHD / RHD confirmed per project

Production lead time

Approx. 2–3 weeks after payment

Photographs and software screens illustrate configurations; the final delivery scope is defined by the confirmed order.

Product overview

Reduce basic-training consumption

Practise repeated starts, gear changes, braking and observation on the simulator to reduce fuel and mechanical wear on training trucks.

Prepare beginners before road training

Learn the larger steering wheel, three pedals, gears and vehicle dimensions before training in a real truck.

Complex roads and weather

Practise urban, motorway and mountain driving in rain, snow, fog and at night, supplementing conditions that are difficult to arrange consistently in real training.

Induction and refresher training

Support new-driver orientation, refresher practice and staged college teaching and assessment preparation.

A wider driving view

The 40-inch TV displays the driving environment for road observation and spatial judgement practice.

Support consistent instruction

Support consistent basic teaching for transport operators and colleges; vehicle types, scoring and reports depend on the delivered software.

Hazard and emergency training

Use simulated brake failures, fatigue and unexpected events to practise hazard recognition and appropriate responses.

Continuous indoor training

Reduce dependence on outdoor areas, weather and vehicle schedules to organise equipment and teaching time more flexibly.

Standard hardware and options

Heavy-vehicle driving seat	Standard equipment × 1
6DOF motion platform	Standard equipment × 1 set
Heavy-vehicle steering wheel and steering system	Standard equipment × 1
Clutch, brake and accelerator pedals	Standard equipment × 1
Manual gear controls with high / low range	Standard equipment × 1
40-inch TV display system	Standard equipment × 1 set
Simulation computer	Standard equipment × 1
Driving simulation software	Standard equipment × 1

Project configuration

Vehicle types, driving layout, software scenes, instructor workstation and VR are confirmed with the order. Servo motors drive the platform's electric actuators; see the specifications for matched parameters.

Software features

Applicable software functions and delivery scope are confirmed in the order's technical documents.

LHD / RHD

Matched left- / right-hand-drive hardware and software

The cockpit can be configured for left- or right-hand drive. The software viewpoint, instruments and control logic follow the selected layout to match physical and virtual driving positions.

- Left- or right-hand-drive cockpit
- Viewpoint matched to the hardware
- Coordinated instruments and control logic

Basic control training

Steering, gears, accelerator, brake, parking brake and lights practice.

Manoeuvring exercises

Reverse parking, parallel parking, curves, right-angle turns, hill starts, narrow gates, manholes, uneven roads, gear changes and single- or double-sided bridge exercises.

Road and weather environments

Town, city, motorway, mountain and gravel roads; night, rain, snow, fog and day/night changes, with corresponding weather effects.

Hazard and emergency training

Scenarios include alcohol and drug impairment, fatigue, speeding, brake failure, unexpected events, noise distraction, traffic direction and yielding to ambulances.

Scoring and training results

Detect stalling, red-light violations, lane crossings, collisions, speeding, unfastened seat belts, unreleased parking brakes and harsh acceleration or braking; record exercises, distance, fuel use, scores and error counts.

Result storage and printing

Results can be saved locally and printed. Local file formats depend on the delivered software version.

Driver assistance

Single- or triple-screen support, dual mirrors on one screen, live pedal and gear indicators, mini-map and point-to-point navigation and route checks.

Languages and system extensions

One software interface language is preinstalled: English, Arabic, Spanish, Romanian or Ukrainian, selected at order confirmation. VR, motion platforms and instructor workstations are available as extensions.

This page shows only a selection of software features and interfaces. Features may be added or modified in future software versions. The delivered software version and feature set are subject to the order confirmation.

OPTIONAL SYSTEM

Instructor workstation interface

Monitor terminal status, assign tasks to one or several simulators and review learner results and errors. Functions and terminal capacity are confirmed by project.

Vehicle types, languages, display arrangements and extensions are confirmed with the order. Custom features, timescales and fees depend on project requirements.

Technical specifications

Standard specifications Default delivery scope for this model	
Vehicle class	Heavy / commercial vehicle driving training
Product form	Static ✓ Dynamic Static: fixed base without motion feedback. Dynamic: A motion platform simulates vehicle attitude and motion cues; this model uses a 6DOF platform.
Motion system	Integrated 6DOF platform Platform model: PT6-7KN-YSL-59R-5-138-1-750; rated payload: 400 kg. See the matched platform specifications below.
Display system	40-inch TV
Standard colour	Army green; other colours can be customised, subject to the confirmed order.
Overall dimensions	1660 × 1335 × 1797 mm (L × W × H)
Net equipment weight	Approx. 385 kg
Packing dimensions / gross weight	1700 × 1450 × 1620 mm (L × W × H); gross weight approx. 540 kg
Power supply and maximum consumption	Standard input: AC 220 V (±10%), 50 Hz; maximum system power, including the 6DOF platform, is confirmed with the order configuration. Power input can be adapted to local supply standards, including AC 110 V. Voltage and frequency must be agreed at order confirmation and recorded in the final specification.

Computer configuration	Intel Core i5-6500; Gigabyte H110M-S2PH; GTX 1660 6 GB; 8 GB RAM; 128 GB SSD Reference configuration. Brands or models may change with availability; replacements will provide equivalent or better performance, subject to the final order specification.
Pre-installed software language	One software interface language is preinstalled: English, Arabic, Spanish, Romanian or Ukrainian. Select the language at order confirmation.
Steering force feedback	DC motor force feedback as standard; servo motor force feedback optional
Steering wheel rotation	From centre: 720° left and 720° right (2 turns each); total rotation 1440°
Gear control	Manual gear controls with high / low range selection
Physical controls	Heavy-vehicle steering wheel, clutch / brake / accelerator pedals, parking brake and combination switches
Operating environment	0–35 °C; 20%–80% RH, non-condensing
Optional extensions Not included as standard; confirmed by project	
Servo motor steering force feedbackOptional	Optional servo motor steering force feedback; the standard configuration uses a DC motor
VR headsetOptional	VR headset and display solutions available by project; models, software compatibility and scope are confirmed for the application
Instructor workstationOptional	Instructor workstation available by project; hardware, management functions and terminal capacity are confirmed for each order
Software customisationOptional	Software customisation available; features, lead time and cost are agreed for each project

Integrated component

Matched 6DOF platform specifications

These values describe the integrated platform, not the simulator's overall dimensions or complete movement envelope.

Motion axis	Travel / angle	Maximum speed
Heave	±75 mm	280 mm/s
Lateral translation	±100 mm	340 mm/s
Longitudinal translation	±100 mm	340 mm/s
Pitch	±20°	60°/s
Roll	±20°	60°/s
Yaw	±22°	60°/s

Servo motors drive electric actuators, coordinated by an industrial controller or computer.

Delivery and support

Production lead time

Usually about 2–3 weeks after payment, subject to the confirmed order and configuration.

Export packing

One export wooden crate per unit; see the specifications for packed dimensions and gross weight.

Factory testing

Software, hardware and overall operation are checked before dispatch.

Installation and training

A user manual is supplied. Remote installation guidance and operator training can be provided when required.

Warranty and upgrades

One-year hardware warranty. Standard new software features may be upgraded free of charge; confirm applicable conditions with sales.

Remote diagnostics

Remote troubleshooting assistance is available; overseas on-site service is not currently provided.

Project enquiries

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