

# **Heave Vehicle Simulator**

"Tutor"









# **Maximizing Value: Simulator-Based Training**

## Mastering Driving Skills through Risk-Free Simulator Training



#### Advantages:

- Gain a competitive edge
- Maximize revenue
- Improve training experience
- Lower personnel needs
- Comprehensive training materials
- Varied vehicle simulations
- Flexible and efficient schedules
- Green technology for driver education
- Weather and traffic independent
- Store and analyze training data
- High level of realism

Experience a groundbreaking truck driver training program with our highly realistic simulators. Immerse yourself in an authentic training experience that will make you feel like you're actually behind the wheel. Our simulators provide an impressive level of realism, allowing students to familiarize themselves with different vehicles and master challenging traffic scenarios. The training data collected is accurately recorded and can be utilized for evaluation and analysis, enabling us to track students' progress and continuously improve the effectiveness of the training. Discover the future of truck driver education and benefit from an immersive, true-to-life training experience.

# Simulator-Based-Training

Basic Driving Tasks
Hazard Awareness

Eco-Training

Maneuvering

Challenging driving Task

The simulator offers a wide range of vehicles, from tractor-trailers to tankers, coaches, and city buses, ensuring high-quality training and providing a maximum driving experience for students. To support feedback and discussions between instructors and students, or in group settings, the entire drive can be recorded and replayed with various camera perspectives, displaying all crucial parameters.















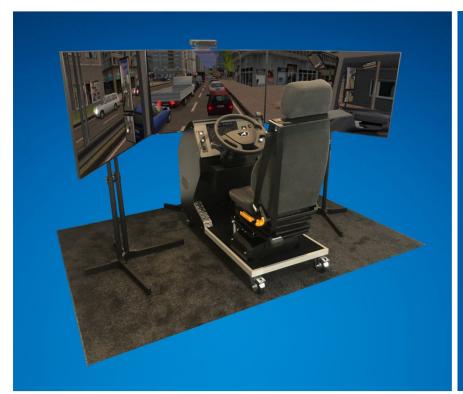


and more.....

# **Heavy Vehicle Simulator "Tutor"**

## **Exploring the Setup of the Driving Simulator**

In the "Tutor" driving simulator, you'll experience a lifelike driving journey. With an authentic steering wheel, digital instrument panel, multifunctional levers, and pedals, you'll feel like you're at the helm of a real vehicle. The adjustable driver's seat ensures maximum comfort, while the large visual system allows for complete immersion into the virtual world. Thanks to its built-in rollers, transporting the simulator is easy and hassle-free. Optional components such as motion systems, control panels, manual gearshifts, and various monitor sizes allow for customized adaptation to your specific needs.



#### **Equipment:**

- Original truck steering wheel (ø 45 cm)
- levers for indicator, horn, and wipers.
- Function levers for retarder and cruise control
- Automatic gearshift
- High-quality adjustable driver's seat
- 15" monitor displaying instrument cluster
- Pedals
- Equipped with wheels for easy transportation
- Audio system as well as headset
- Three 55" screens providing a horizontal virtual field of view of 180°
- Levers for mirror adjustment
- Comprehensive training software
- Motion-System for the simulation of acceleration forces (seat mover)
- Headtracking System for checking the driver's gaze direction
- control and data management through external control panel
- Multiple Simulators can be controlled by one control panel







## Unleash the Full Potential of Your Simulator

#### **Discover Essential Accessories for Comprehensive Training**"

#### **Control Panel**

The control console for the driving simulator is a powerful tool for instructors to observe and improve their students' behavior. It consists of a desktop PC with two 27" monitors and is equipped with specialized software that allows the instructor to track the actions of the student, change perspectives, and view replays. Additionally, the instructor can trigger events and record sequences. The control console also provides management functions that enable the storage and archiving of driver data, their results, and replay data. It is even possible to control multiple simulators with a single instructor by using a variant with three monitors. For maximum portability, a notebook version with a 17" display is also available.







#### **Motion Support**

The motion system, located beneath the driver's seat, enhances the realism of the "Tutor" driving simulator. It ensures that the driver not only experiences the visual aspects but also physically feels the movements of their virtual vehicle. Real forces are transmitted to the driver during steering, acceleration, and braking, providing a realistic sensation. The system can also simulate road irregularities, inclines, and declines. This enhances the driving experience and contributes to the authenticity of the training



## Headtrackingsystem

This special camera can be optionally purchased and mounted on the middle monitor of the simulator. It allows for checking the driver's head position to ensure they can look into side streets and perform shoulder checks. If the driver fails to perform these actions, the simulator generates corresponding error messages and displays the recorded image of the driver in replay or on the optionally available control panel.



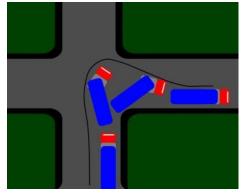
# **Comprehensive Training Curriculum**

## **Basic driving task**

Based on the foundational knowledge of light vehicle driving license, training with the simulator provides an opportunity to safely familiarize drivers with the operation of trucks and buses. The driving tasks and training sessions effectively prepare trainees for the challenges of the road, promoting increased safety on the streets.

With the aid of specialized software, various aspects of the training can be transferred to the simulator. This enables safe and effective practice of maneuvers such as turning, navigating roundabouts, overtaking, and other driving scenarios.





#### **Maneuvering**

Using a truck simulator for maneuvering training offers a safe, cost-effective, and efficient way to enhance skills in handling large vehicles. Drivers can master reverse maneuvering, practice loading swap bodies, and perfect navigating a heavy truck through narrow passages.

In the simulator, drivers can learn how to safely maneuver a variety of vehicles, including semitrailers, tankers, solo trucks, coaches, articulated trucks, and other vehicles under realistic conditions. They gain firsthand experience with the dimensions and behavior of the vehicles.

The the truck simulator offers a safe and effective platform for drivers to learn and master the art of maneuvering large vehicles. It provides a realistic and immersive training experience, enabling drivers to develop the necessary skills and confidence to handle challenging maneuvers in real-world driving situations, ultimately ensuring the safety of themselves and other road users.





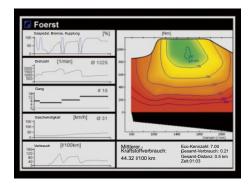


#### **Eco Training**

Adopting an economical and environmentally friendly driving style not only results in fuel savings but also contributes to a reduction in CO2 emissions, making a positive impact on the environment.

The simulator enables the simulation of different load conditions to accurately test fuel consumption under realistic circumstances, allowing drivers to understand the impact of cargo weight and distribution on fuel efficiency. At the end of a drive, the student's performance is evaluated using an Eco score.

By integrating an economical and eco-friendly driving style through the utilization of the "Eco Driving" software, the simulator facilitates responsible driving practices. The combination of advanced software features and realistic simulation capabilities ensures an effective and comprehensive learning experience, paving the way for a greener and safer future on the roads.





#### **Hazard Awerness**

The flow of traffic in urban areas, on highways, and in rural areas is unpredictable and requires high concentration and proactive driving to recognize and overcome potential hazards. With the hazard perception software, drivers can experience precarious situations without actually putting themselves in danger.

After the drive, the instructor has the ability to review the sequences in replay mode and freeze key moments. This allows the trainee to identify where they should have reacted and how they could have detected an impending danger, such as by monitoring the rearview mirrors.

Analysis diagrams also display brake pressure and timing, as well as the adherence to the correct sequence of braking and clutching. This helps develop awareness of potential hazards and encourages drivers to drive proactively and cautiously from the very beginning.







# **Technical Specifikation**

# **Heavy Vehicle Simulator "Tutor"**

Overall device dimensions (installed) 2000 mm x 3000 mm x 1600 mm (LxWxH) Driving cabin (without visual system) 1400 mm x 740 mm x 1480 mm (LxWXH)

Driving cabin weight 160 Kg Screens with stands weight 50 Kg

Power supply: 230 V, 16 A Screens Drei LED Monitore, 55"

Horizontal viewing angle 180° Vertical viewing angle: 34° 34°

Audio System 2 Kanäle, 2 channels, soundbar with external subwoofer USB ports 3 on the cabin housing, can also be used for headphones

Instrument cluster Displayed on a 15" LCD monitor Steering wheel: Original MAN, 45 cm diameter

Function levers: Indicator/windshield wiper, retarder, parking brake, mirror

adjustment, light switch

Pedals Gas, Brake

Transmission: Automatic (D, N, R)

Simulated vehicles: Semitrailer, articulated truck, tanker, coach, coach with trailer,

city bus, fire truck, ambulance, van, truck with and without

tandem trailer

Analysis tools: Replay, diagrams, error detection system Weather conditions: Sunny, rainy, foggy, snowy, and dark

Datenbase City, suburban, rural roads, highways, and mountains Traffic features: Traffic lights, road signs, inclines, declines, intersections,

roundabouts, depot, and parking lots

Maximum number of lanes: Two lanes, three lanes per direction on highways

Mirrors: Up to 6 mirrors displayed, integrated mirror view in the main

display

Reverse camera: Integrated in reversing excercises Error detection system: Detects significant traffic rule violations,

excercise-specific evaluation

Headtracking-Kamera Kinect
Motion-Support Seat Mover

Control Panel Desktop PC with two 27" monitors
Optional gear shifts: 7-speed H-pattern or Telligent

#### **Imprint**

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