PREPARE FOR REALITY

TENST★R
simulation

OPTIMISE LEARNING IMPROVE SAFETY MINIMISE EMISSIONS

We develop industry-leading products with innovative tools for learning and extensive exercise programs, paired with cutting edge graphics and professional hardware.

Our simulators are available for Construction, Transport, Traffic, Agriculture, and Forestry.

Welcome to our world of simulation!

EFFICIENT

STRENGTHENS THE STUDENTS

Simulators allow students to gain more hours in the machine or vehicle regardless of season and weather. They can even practice on their own with minimal teacher presence.

SAFE

REDUCES ACCIDENTS

Students train in a safe and relaxed environment. They can practice extreme situations and operations without risking injury or machine damage.

GREEN

REDUCES EMISSIONS

Producing and running a simulator leaves a minimal climate footprint, compared to a traditional machine running on fossil fuels.

ECONOMIC

IS COST-EFFECTIVE

A simulator is a smart investment with low operating costs and minimal downtime. And one teacher can train several students simultaneously.

REALISM

EXCELLENT

MACHINE BEHAVIOR

Advanced programming with exacting physics and dynamics, together with the latest technology, create a realistic experience, and a strong lifelike vehicle feeling when driving.

PROFESSIONAL

HARDWARE

The simulators are designed to the highest standards of quality and functionality. Developed and assembled in Sweden, with components such as seats and controls sourced from industry-leading manufacturers.

LIFE-LIKE

GRAPHICS

We design our graphics with an emphasis on real machine models and actual driving environments for a truly immersive experience.

TENSTAR STEERING WHEEL

METAL CONSTRUCTION
Compatible with all our simulators.

SHUTTLE SHIFTER
Offers full functionality with a range of machines.

FORCE FEEDBACK
Customizable spring and damper settings with 20Nm of torque.

CONTROL STEM
Signals, horn, lights etc.

ADJUSTABLE POSITION
Stepless angle adjustment for different vehicles, car, bus etc.

AVAILABLE IN 3 SIZES
390mm – Truck/Bus etc.
355mm – Car
310mm – Forklift etc.

METHODOLOGY

THOROUGHLY DEVELOPED

EXERCISES

Each machine type has a full set of professionally developed exercises, optimised to train students in a wide array of operations, from basic know-how to advanced maneuvering.

ANALYSIS AND FOLLOW-UP

LEARNING

At Tenstar, we're always looking to develop our understanding of how learning works. Working closely with experts in different fields, we continue to present the best tools on the market.

SUPPORT AND

UPGRADES

We regularly improve and develop our simulators, and with our first-class remote technical support on hand, you always have an up-to-date simulator running.

THE OPTIMAL CLASSROOM

COOPERATING
Several students working together in one network and in the same environment.

TEACHER STATION
With simulation-based training, one teacher can train several students at the same time.

MORE TIME TO LEARN
All students are provided with more training hours and minimal downtime.

SAFE AND RELAXED
Students practice in a secure environment for optimised learning.

CONSTRUCTION

	Wheel Excavator
	Track Excavator
	Wheel Loader
	Articulated Hauler
	Dozer
	Grader
	Telescopic Handler
	Tower Crane

TRANSPORT

	Forklift
	Crane Lorry
	Timber Crane Truck
	Wheel Loader

TRAFFIC

	Truck With Trailer
	Long Hauler
	Bus
	Car
	Ambulance

AGRICULTURE

	Tractor
	Combine Harvester
	Telescopic Handler

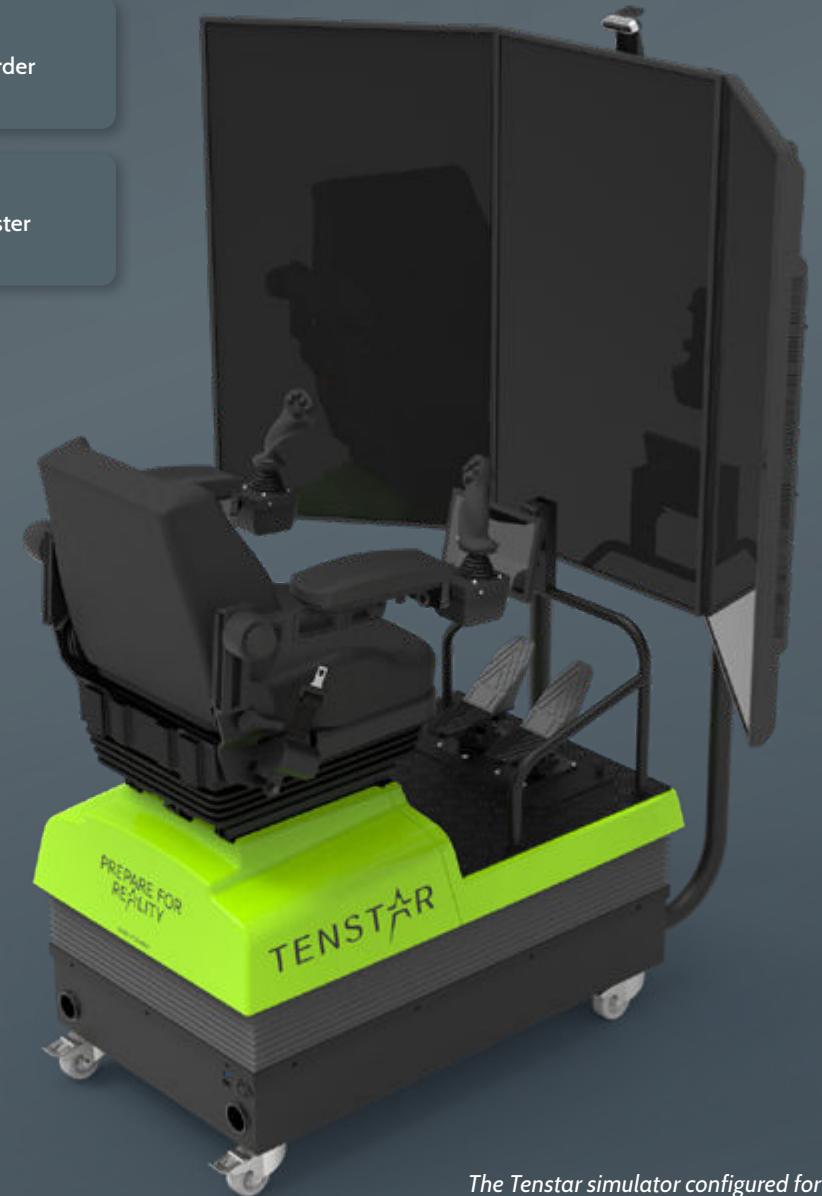## FORESTRY

	Forwarder
	Harvester

THE TENSTAR SIMULATOR IS A ALL-IN-ONE SOLUTION

ONE PLATFORM, MANY MACHINES

With Tenstar's customisable hardware solution, you can drive several machines using the same platform. A flexible and cost-effective solution for all your training needs.

The Tenstar simulator configured for the Track Excavator. See other options on pages 18-19.

TENSTAR RECORD & REPLAY

ANALYZE, EVALUATE AND IMPROVE

All training sessions are automatically saved and stored in the system. The exercises can then be watched again from any chosen angle and at any given time, helping students improve their driving.

Choose the sequence you want to analyze, pause, adjust the view in 3D, start again, and learn from what happened.

Analyze the exercise in full 3D from an external viewpoint or from within the vehicle.

00:06:10

00:04:28

TENSTAR SCORING SYSTEM

FEEDBACK FOR MORE EFFECTIVE LEARNING

Tenstar Scoring System offers scoring results based on Safety, Quality, and Economy. It enables evaluation, feedback, offering incentives for the student's progress and development.

A complete exercise report, containing the student's score, can also be exported as a PDF for closer evaluation.

A review shows immediately after a completed exercise with the score on Quality, Safety, and Economy.

YOUR SCORE

QUALITY SAFETY ECONOMY

83/100 37/100 62/100

MULTI MACHINE ENVIRONMENT

INTERACT AND PRACTICE TOGETHER

With MME, several different users can cooperate and interact in the same environment. Students solving tasks together offers a new level to simulation-based education, ensuring students are prepared for reality.

You can also place a person, using a VR-headset, in the virtual training environment. The user can move around the worksite to observe and communicate through hand gestures.

Students solve tasks together in the virtual environment - each student using their own machine.

VR-WALKAROUND

IMMERSE YOURSELF WITH VIRTUAL REALITY

Virtual Reality Walkaround offers the student the possibility to interact and move around the machines and vehicles. Get to know all the details or carry out an interactive pre-start check. All you need is a VR headset and two hand controls.

The user can interact with the machines by, for example, doing a mechanical inspection.

VR headset and hand controls connected to a regular computer make it possible to step into the simulation.

14

15

TENSTAR USER XPERIENCE

INTUITIVE AND SELF EXPLANATORY

Tenstar User Experience has been internally developed and offers a clean keyboard free user interface, making use of all the display screens when selecting your chosen machine type and task.
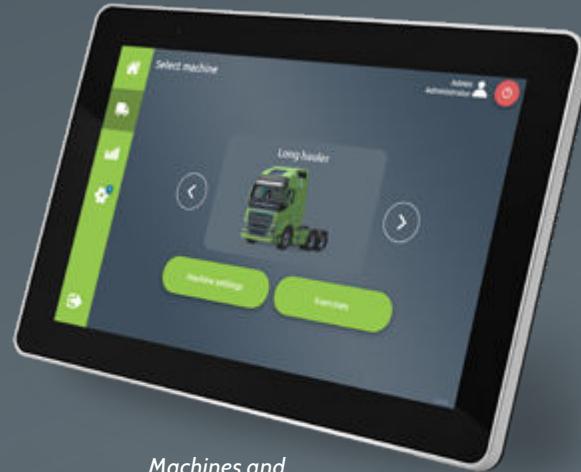
Machines and exercises are easily selected on the user-friendly touchscreen.

Each user has a personal login and can quickly resume where they previously left off.

SOUND INSTRUCTIONS

A SMARTER WAY OF PROVIDING INFORMATION

With Text-to-Speech, we help users process information more efficiently with the help of voice instructions. The users can maintain their focus on the road and task ahead, using their hearing to receive the instructions.

EYE TRACKING

REGISTER WHERE THE STUDENT IS LOOKING

By combining eye tracking with TRR, it is possible to gain a new previously unseen perspective offering an entirely new understanding of how different situations play out and why.

Eye tracking eyewear.

Eye tracking camera

WE HAVE A SOLUTION FOR EVERY NEED

Tenstar's proprietary hardware is built to order in Tanumshede, Sweden, and is available in three different standard designs. You can adapt the platform to create your optimal solution by choosing and combining professional components from the industry – steering wheel, joysticks, pedals, control systems, screens, VR headsets, etc.

A SELECTION OF OPTIONAL HARDWARE

TENSTAR STEERING WHEEL

VR HEADSET

QUICK-SWITCH

MOTION BASE

DESKTOP SIMULATOR

The entry-level solution

- Tenstar Steering Wheel with professional pedals *or* gaming steering wheel with pedals.

- Automatic or manual gearbox

- Add joysticks to enable more machine types

- Touch screen and 1-3 landscape screens in the front

CAR SIMULATOR

The complete solution for car simulation

- Tenstar Steering Wheel and professional hanging pedals

- Choose between an automatic or manual gearbox

- Car seat with three-point seat belt

- Touch screen and 3 asymmetrically positioned landscape screens in the front + 1 landscape screen to the rear

COMBINATION SIMULATOR

The ideal solution for most machines

- Motion base for enhanced realism

- Interchangeable track or traffic pedals

- Professional low driver seat with seat belt

- Add joysticks to enable more machine types

- Touch screen and 3 portrait screens in the front + 1 optional landscape screen to the rear

WELCOME TO OUR WORLD OF SIMULATION

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