

**PREPARE FOR
REALITY**



THE TENSTAR MISSION

OUR MISSION IS TO MINIMISE EMISSIONS, INCREASE EFFICIENCY AND IMPROVE SAFETY DURING AND AFTER USER TRAINING WITH MACHINES AND VEHICLES.

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

Welcome to our world of simulation!

SIMULATION PROVIDES SEVERAL

BENEFITS



SAFE

REDUCES ACCIDENTS

Users 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.



EFFICIENT

TIME-EFFECTIVE

Simulators allow users 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.



ECONOMIC

COST-EFFECTIVE

A simulator is a smart investment with low operating costs and minimal downtime. Compared to a real machine, the operating cost of a simulator is just a fraction.

AN AUTHENTIC DRIVING EXPERIENCE THROUGH

REALISM



EXCELLENT

MACHINE BEHAVIOR

Combining the latest technology and programming with advanced engineering gives Tenstar's simulators a very authentic machine feel.



PROFESSIONAL

HARDWARE

The simulators are designed to the highest standards of quality and function. Developed and assembled by Tenstar 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.

EFFICIENT LEARNING THROUGH

METHODOLOGY



THOROUGHLY DEVELOPED

EXERCISES

Each machine type has a full set of professionally developed exercises, optimized to train users 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.



FLEXIBILITY

UPDATES

With endless possibilities to improve and develop all of our simulators.

EARTH MOVING



Track Excavator



Wheel Excavator



Wheel Loader



Articulated Hauler



Dozer



Grader

LIFTING



Telescopic Handler



Tower Crane



Mobile Crane

MATERIAL HANDLING



Forklift



Crane Lorry



Timber Crane Truck



Telescopic Handler



Wheel Loader

TRAFFIC



Car



Van



Bus



Long Hauler



Truck With Trailer

EMERGENCY



Fire Engine



Ambulance

FORESTRY



Harvester



Forwarder

AGRICULTURE



Tractor



Combine Harvester



Telescopic Handler

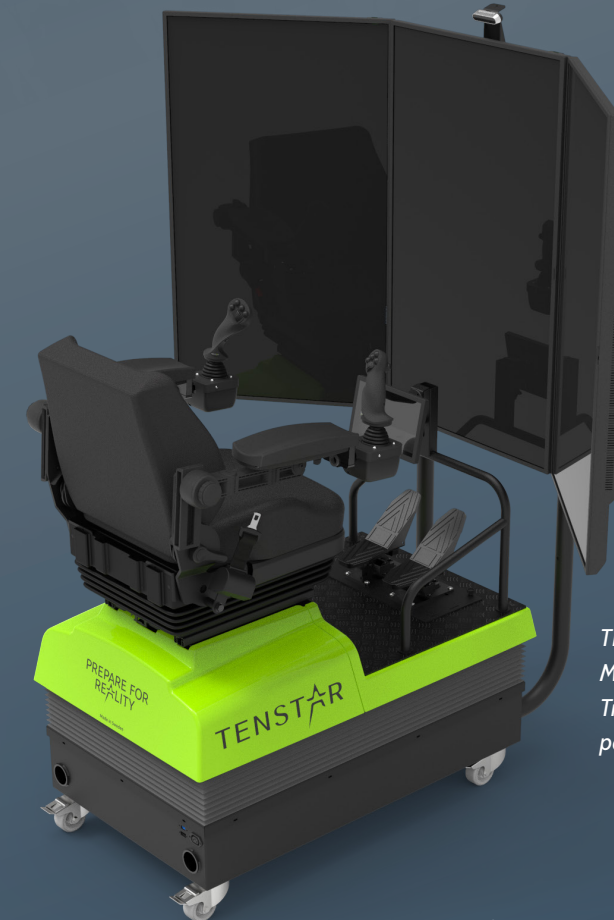


Wheel Loader

THE TENSTAR SIMULATOR IS AN ALL-IN-ONE SOLUTION

ONE SIMULATOR, MANY MACHINES & VEHICLES

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



The Tenstar simulator configured with Motion base and Track pedals for the Track Excavator. See other options on pages 16-17.

TENSTAR USER XPERIENCE



INTUITIVE AND SELF EXPLANATORY

Tenstar User Xperience is an interface that offers a clean and simple look to our simulators, making use of all screens to select and navigate machine types and exercises.



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

TEXT & 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.



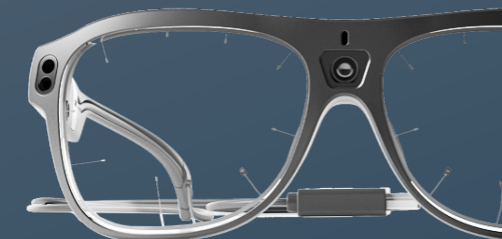
Machines and exercises are easily selected on the user-friendly touchscreen.

NOW DEVELOPING

EYE TRACKING

REGISTER WHERE THE USER 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.



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 3D from within the vehicle or from an external viewpoint.

TENSTAR SCORING SYSTEM



FEEDBACK FOR MORE EFFECTIVE LEARNING

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

A complete exercise report, containing the user'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.



VIRTUAL TRAINING SPACE



INTERACT AND PRACTICE TOGETHER

Tenstar Virtual Training Space, VTS, is the natural evolution of simulation training. It allows multiple users to enter the same virtual space, making interactive, cooperative advanced training possible. Users can utilize a wide variety of machines, vehicles, and even VR avatars, all working together to complete realistic exercises.



Users solve tasks together in the virtual environment, each user with their own simulator or VR headset.



VR-WALKAROUND



IMMERSE YOURSELF WITH VIRTUAL REALITY

Virtual Reality Walkaround offers the user 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.



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

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



The user can interact with the machines by, for example, doing inspection routines before driving.

WE HAVE A SOLUTION FOR EVERY NEED

Tenstar's proprietary hardware is assembled to order in 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.



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 in the rear



COMBINATION SIMULATOR

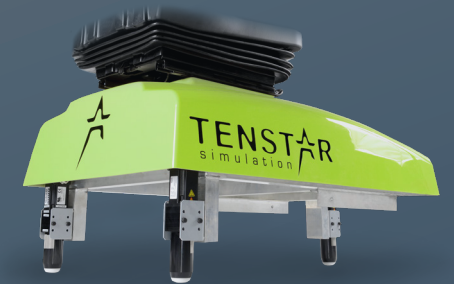
The ideal solution

- 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 in the rear



VR HEADSET

Using a VR headset adds more realism to the simulation with better depth perception and a 360 degree view.



MOTION BASE

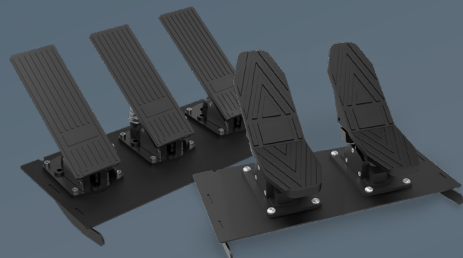
Tenstar motion base is 3 DOF (Degree of Freedom) using advanced motion pattern technology that enhances the feeling of working in an actual machine.

FOR AN ADDITIONAL IMMERSIVE EXPERIENCE



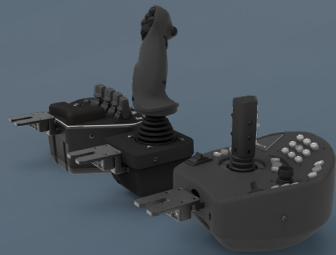
TENSTAR STEERING WHEEL

Designed and developed by Tenstar our steering wheel offers a more realistic driving experience with unique characteristics adapted for different vehicles.



TENSTAR PEDALS

Floor-mounted pedals for traffic and tracked vehicles that are easily interchangeable when switching vehicle.



TENSTAR JOYSTICKS

Standard levers of the highest quality with innovative and functional design. All settings and functions correspond to real equipment.



TENSTAR QUICK SWITCH

The Quick-switch connector fits all joysticks on the same armrest and lets you switch between different controllers for all Tenstar machines.

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 optimized learning.

WELCOME
TO OUR WORLD OF
SIMULATION