



# GUARDIARIS

Train The Brain.



## MODULAR MILITARY VEHICLE TRAINER



VEHICLE  
AND RWS  
AGNOSTIC



FULL  
CREW  
TRAINING



INTERIOR  
REPLICA



FULLY  
IMMERSIVE



ENVIRONMENTAL  
FEEDBACK



DATA  
RECORDING



# HIGHLY IMMERSIVE MILITARY VEHICLE AND RWS SIMULATOR

## KEY FEATURES

- Realistic vehicle and remote weapon station simulation
- Fully customizable interior
- Battle management system integration
- Exact replicas of controls and switches
- Fully simulated weapon ballistics and vehicle driving dynamics
- Training of all vehicle and weapon system operating procedures
- Individual or simultaneous crew training of mission-critical skills
- Advanced analytics and accurate trainee biometrics tracking
- Individual and team 4D After-Action Review
- Easy-to-use in-depth training scenario editing and creation

The Modular Military Vehicle Trainer (MMVT) is a highly innovative and fully customizable vehicle and remote weapon station training simulator for up to 4 crew members: driver, gunner, commander, and operator. It provides training of key crew mission-critical skills: operating procedures, driving, tactical manoeuvring, weapon handling, target acquisition, terrain observation, communications, and BMS operation in a variety of combat scenarios.

The simulator precisely replicates the vehicle crew's operating environment in harsh battlefield conditions, enabling soldiers to better understand their equipment's capabilities and helping them make the right decisions in combat.

## UNMATCHED TRAINING REALISM

Custom-made according to specific customer requirements, cabins are designed as exact replicas of a vehicle crew's working environment, matching the interior of any vehicle and remote weapon station type. The controls and gauges are replicated in physical form and/or simulated on touch screens, depending on the customer's preferences.

The cabin is mounted on a 3 DoF / 6 DoF motion platform that realistically simulates dynamic vehicle movement and physics. The haptic feedback provided by the motion platform radically improves the perception of driving on different surfaces.

## FULLY IMMERSIVE TRAINING ENVIRONMENT

Seated in an enclosed, precisely replicated vehicle cabin, the crew of up to four trainees is immersed in authentic 360° synthetic environments with a variety of training scenarios.

The in-house developed GUARD™ Simulation Engine enables accurate simulation of any vehicle model, asset, or other environmental requirement, such as terrain, weather, and time of day. Exact vehicle physics are calculated for various surfaces, such as gravel, concrete, tarmac, mud, sand, and snow. The terrain can be customised according to the end user's requirements.

## EYE-TRACKING SYSTEM

Best-in-class eye tracking and monitoring of each crew member's focus on controls, switches, and the environment. The information gathered by this system is one of the key biometric measurement elements in evaluating soldier readiness.

## RWS INTEGRATION

MMVT's modularity enables the integration of any remote-controlled weapon system, which is then fully simulated in the GUARD™ environment with exact ballistics for various projectile types. This ensures that the training solution is completely tailored to the end-user's specific requirements and exactly mimics the military vehicle's interior for maximum training realism and versatility.

Alternatively, Guardiaris is capable of transforming any RWS into an in-vehicle embedded simulator for maximum training realism, transforming any operational RWS into an instantly deployable training tool.

## TABLE-TOP TRAINER

All combinations of MMVT operator stations (driver, gunner, commander) can be produced as Table-Top-Trainers. A TTT is a fully self-contained and effective training solution for the entire vehicle crew or RWS operator, designed for easy and fast transport and setup.





## MAXIMUM TRAINING COMBINATIONS

The MMVT functions as a comprehensive trainer for vehicle crews of up to four members. It houses a custom combination of operator stations, such as driver, gunner, commander, and fourth operator. Additionally, multiple MMVT simulators can run simultaneously in the same training scenario, up to battalion level. This ensures that all the crew's operational procedures and commanding tasks are trained in the widest range of combinations.



### DISEMBARK RAMP

With the addition of a proprietary disembark ramp and in combination with our small-arms trainers, the MMVT is the perfect solution for simulating disembarking for squad-level exercises with IFVs or other personnel carriers.

### DRIVER STATION

Complete true-to-life recreation of the driver's operating environment that builds transferable skills in vehicle handling, terrain observation, tactical manoeuvring, vehicle status troubleshooting (tire pressure, engine, sensors), use of all vehicle controls and operating procedures for driving on various surfaces and in different conditions (weather, terrain, time of day).



### GUNNER STATION

Fully integrated RWS training solution with exact controls and menus of its real-life counterpart. It covers in-depth operational procedures for target detection, recognition, selection and elimination, along with ammunition selection, smoke grenade operation, calibration, and sight selection. All this can be trained in various conditions (weather, day/night).



### COMMANDER STATION

Comprehensive training of operating procedures, use of battle management system (BMS), decision making under pressure, issuing orders, communication, use and RWS handling, target detection and selection, target transfer to the gunner.



# UNPARALLELED TECHNOLOGY

## **GUARD™ SIMULATION TECHNOLOGY**

Guardiaris solutions are powered by the in-house developed GUARD™ Simulation Engine. Advanced real-time data capture, simulation of true ballistics, full building destruction, multi-level vehicle vulnerability models, fast on-demand real terrain integration, and AI-generated forces offer diverse training possibilities in highly realistic environments.

## **GUARD™ CONTROL PANEL AND TERRAIN EDITOR**

GUARD™ introduces a very powerful, user-friendly interface that allows fast 3D terrain prototyping as well as complete freedom in creating complex training scenarios. This includes GNSS-based terrain data and quickly generating fully immersive 3D environments populated by custom assets and objects. It grants instructors full scenario control, with the ability to create targets and amend parameters even during training.

## **COMPREHENSIVE AFTER-ACTION REVIEW**

The After-Action Review (AAR) ensures fast training data collection, filtering, and aggregation for comprehensive post-training analysis on the individual or squad level. The AAR also provides insight into the trainee's first-person view if eye tracking is present, which includes visual feedback of weapon or vehicle handling and tracking of all operations and communication during training.

## **ALL-IN-ONE TRAINING PLATFORM**

The MMVT can be deployed in standalone mode or as part of a larger training network within the same tactical training scenario. The tactical interconnection of multiple simulators unlocks new possibilities of squad-to-battalion level realistic training and significantly enhances troop readiness. Furthermore, the simultaneous training of multiple combat units, including allied and enemy forces, offers unparalleled flexibility and scalability to meet the unique training needs of modern armed forces.

With support for full multi-mission tactical configuration of diverse simulator types, including other vehicles, remote weapon stations, small arms, forward observers, anti-armour weapons, and mortars, the solution offers unprecedented versatility and adaptability.



## **HLA INTEROPERABLE**

Our simulators have an interoperability option, allowing seamless connections with external simulator systems.

## GET IN TOUCH

Contact us for detailed MMVT technical specifications and customization possibilities.

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