



GUARDIARIS

Train The Brain.



MODULAR JOINT LIGHT TACTICAL VEHICLE CREW TRAINER



VEHICLE
AND RWS
AGNOSTIC



FULL
CREW
TRAINING



INTERIOR
REPLICA



FULLY
IMMERSIVE



ENVIRONMENTAL
FEEDBACK



DATA
RECORDING



HIGHLY IMMERSIVE JLTV AND RWS SIMULATOR

KEY FEATURES

- JLTV vehicle simulator for crew of 4 trainees: driver, gunner, commander and 4th operator
- Integrated modular remote weapon station simulator with ballistics
- Customizable interior cabin replica
- Exact replicas of controls
- Integration with battle management system
- Training of all vehicle and weapons systems operating procedures
- Simultaneous or individual crew training
- Training of crew communication via intercom and radio
- Multiple JLTV units simultaneous training
- 6 DoF motion platform for vehicle dynamics simulation
- Trainee key biometric signals evaluation
- 4D After-Action Review for each crew member and team
- Scenario editing and creation tool

Modular Joint Light Tactical Vehicle Crew Trainer is a customizable vehicle and remote weapon station training simulator for 4 crew members: driver, gunner, commander, 4th operator. The simulator is a mechanical, functional, and procedural digital replica of the actual JLTV 4x4 vehicle interior on 6 DoF motion platform.

The solution provides training of key crew mission critical skills: operating procedures, driving and tactical manoeuvring, weapon handling, terrain observation, voice over intercom and radio inter-crew communication, and BMS operation in a variety of combat scenarios, even with platoon of vehicle simulators.

UNMATCHED TRAINING REALISM

The custom-made cabin interior is designed to replicate the precise working environment of 4 person vehicle crew, aligning with the interior layout and type of remote weapon station utilized. LCD screens integrated into the cabin walls mimic the appearance of a genuine JLTV vehicle, digitally simulating all windows to project realistic battlefield views tailored to each crew member's point of view. The comprehensive simulation fosters heightened situational awareness, allowing the crew to make informed decisions based on accurate perceptions of the simulated battlefield.

The cabin is mounted on a 6 DoF motion platform that simulates dynamic vehicle motion from multiple terrain types (gravel, concrete, mud, sand, snow) and significantly improves driver and crew perception.

FULLY IMMERSIVE TRAINING ENVIRONMENT

Seated in replicas of enclosed vehicle crew compartments, the crew is immersed in authentic 360° vehicle simulated environment, where it executes a variety of training scenarios. A large database of immersive environments and objects provides trainees with a realistic perception of situational awareness. All actions and manoeuvres in the high-fidelity simulation are supported with integrated auditory, visual, and functional feedback displayed on the simulated battlefield.

ENVIRONMENT GAZE TRACKING SYSTEM

Each crew member is equipped with physiological sensors to measure key biometric signals: heart rate, eye tracking and eye pupil to provide comprehensive trainee performance evaluation. Eye tracking monitors the trainee's attention on controls, battlefield developments, and environment.



UNPARALLELED TECHNOLOGY

GUARD SIMULATION TECHNOLOGY

Guardiaris solutions are driven by the in-house developed GUARD™ simulation graphics engine. Advanced real-time data capture, simulation of true ballistics and AI generated forces offers diverse training possibilities in highly realistic environments. A powerful user-friendly training management interface allows fast scenario prototyping as well as full freedom of complex scenarios creation.

COMPREHENSIVE AFTER-ACTION REVIEW

The After-Action Review (AAR) ensures fast data collection, classification, and aggregation for comprehensive post-training analytics on the crew member, or vehicle, up to squad of vehicles level. The AAR also provides insight into the trainee's first-person view, which includes tracking and visual feedback of all operating procedures executed during the exercise.

VARIETY OF TRAINING COMBINATIONS

The JLTV simulator can train commander, driver, gunner and fourth crew member simultaneously or individually in accurately replicated working environment of each crew member. Moreover, scalability enables multiple JLTV vehicle simulators to operate concurrently in the same high-fidelity simulation environment ensuring that all crew's individual and teams operational procedures are trained in the widest range of combinations.



DRIVER STATION

Vehicle handling including terrain observation and tactical manoeuvring, use of levers and switches on the control panel, operating procedures for road and off-road driving in different environment conditions (weather, terrain, day/night) checking vehicle status (tire pressure).



GUNNER STATION

It includes operations and procedures: target detection, recognition, target selection, and target elimination, with suitably selected ammunition, smoke grenades launching, use of RWS menus and operational procedures, under various environmental conditions (weather, day/night), day/night/IR sight selection, calibration.



COMMANDER STATION

It includes functions and procedures for: tactical training of operating procedures, use of battle management system (BMS), decision making, crew orders, communication with other vehicles, use and handling of remote weapon station (RWS), target detection, recognition and selection, target transfer to gunner.



ALL-IN-ONE TRAINING PLATFORM

The JLTV Crew Trainer 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 JLTV simulators unlocks new possibilities of platoon-to-squad level realistic vehicle trainings 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 needs of diverse, complex tactical combat training environments.

With support for full multi-mission tactical configurations of diverse simulator types, including other vehicles (from 4x4 to 8x8 and MBT), remote weapon stations, small arms, forward observers, and multiple anti-armor simulators, the solution offers unprecedented versatility and adaptability.



HLA INTEROPERABLE

Our simulators are HLA interoperable on customer's request, allowing seamless connections with other simulator systems.

GET IN TOUCH

Contact us for detailed JLTV technical specifications and customization possibilities.

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