

LAVR

RISE ACADEMY

**Research and Robotics | Innovation in Warfare |
Strategic Studies | Education**



ABOUT US

- »» LAVR UK are a privately owned, British, multi-national company and authorised importer and exporter of military grade goods.
- »» LAVR UK was established to bring you tailor made and revolutionary solutions to meet your strategic needs.
- »» We specialise in a range of services, including the manufacturing of multi-purpose drones, drone detection and protection systems, armoured special vehicles, shell and mine casings, ready-to-use ammunition, port security & ISPS compliance and artificial intelligence systems.



SEGMENT

01

INTRODUCING RISE

RISE SUMMARY → *RISE CAPABILITIES* → *TOPICS OVERVIEW*



INTRODUCING RISE ACADEMY

WHAT IS RISE?

The RISE Training Academy specialises in the study of modern warfare, designed to train and equip students with the most relevant knowledge, skills and tactics necessary to conduct successful combat operations.

Delivered by experts and specialists, the RISE Academy harnesses real-world lessons learnt from relevant and ongoing conflicts to train the next generation of defence professionals.

CORE PILLARS

Research & Robotics

Innovation in Warfare

Strategic Studies

Education & Training

AI & Cyber Defence

Drone Operations



RISE ACADEMY CORE CAPABILITIES

01

Development: Development and delivery of specialised training programmes for students.

02

Knowledge: Harnessing Lessons Learnt to develop a comprehensive knowledge-sharing platform.

03

Simulation: Creating simulations grounded in real-world events and scenarios.

04

Immersive Learning: Integration of augmented reality technologies into educational & training processes.

05

Artificial Intelligence: Application of artificial intelligence within military processes and operations.

06

Cyber Defence: Application of cyber defence and information security methodologies.

07

Electronic Warfare: Conducting research and analysis in the field of electronic warfare.

08

Robotics & Drones: Utilisation of drones and robotic systems across a range of operational environments.



TOPICS STUDIED

MODERN WARFARE TECHNOLOGIES

Artificial Intelligence

Robotic Systems

Cyber Warfare

Robotic Land & Water Systems
(Demining, etc.)

Drone Systems

ELECTRONIC WARFARE

Electronic Warfare

Radio Communications

Engineering

Battle Management (AAR)

Hybrid Warfare

INNOVATIVE TECHNOLOGIES

Immersive Technologies

Exoskeletons

3D Printing & Developments

Computer Vision

Invisibility Technologies

Information Wars



SEGMENT

02

RESEARCH & DEVELOPMENT

R&D PROCESS → ANALYTICAL CAPABILITIES → STRATEGIC DEVELOPMENT



RESEARCH & DEVELOPMENT EXPERTISE

01

STRATEGIC RESEARCH

Facilitates a strategic advantage in modern warfare through deep analytical capability and intelligence frameworks.

02

TECHNOLOGICAL COLLABORATION

Combines expertise from Ukraine and partner countries, driving innovation to enhance defence capabilities.

03

AI-POWERED DRONE PRODUCTION

Production of AI-integrated air, land and sea drones for technologically advanced warfare.

04

WEAPONS INTEGRATION

Seamless real-time weapons integration with AI systems for optimised targeting and battlefield performance.

05

ANALYTICAL PROBLEM-SOLVING

Specialised teams assessing developing trends and deliver enhanced problem-solving capabilities.

ANALYTICAL CAPABILITIES

BATTLEFIELD INTELLIGENCE

Our battlefield analytics enhances decision-making by providing data-driven forecasting and strategies, enabling efficient resource allocation and tactical planning to optimise military operations.

RISE Academy develops cutting-edge analytical tools that translate raw battlefield data into actionable intelligence, ensuring mission success through precision, speed and clarity.

Data-driven | Predictive | Mission-critical

01

FORECASTING

Analysing military data, creating forecasts for the development of armed conflicts.

02

BLOCKCHAIN SECURITY

Utilising blockchain technologies to protect secure battlefield information.

03

AI ALGORITHMS

Implementation of algorithms for self-guided weapons systems and autonomous decision-making.

04

THREAT INTELLIGENCE

Continuous assessment of threat patterns and analytics supporting tactical planning.



STRATEGY DEVELOPMENT

01

RISK ANALYSIS

Enhanced Risk Analysis
Covering:

- »» Political
- »» Industrial
- »» Security

02

FOREIGN MARKET ENTRY

- »» Market Intelligence
- »» Stakeholder Mapping
- »» Partner Search and Matching
- »» Strategy Development

03

DUE DILIGENCE

- »» Pre-M&A Checks
- »» Supply Chain and Trade
- »» Pre-Employment Screening

04

MARKET RESEARCH

- »» Technology Search
- »» Trends Intelligence

05

COMPLIANCE

- »» Regulatory Framework (Including IP)
- »» Sanctions Compliance
- »» Anti-Corruption Compliance



SEGMENT

03

INNOVATION – MARITIME AND PORT SECURITY

FOUNDATION → STRATEGY → TECHNOLOGY → TRAINING → CUSTOMISATIONS

MARITIME GUARD

01

SECURITY TRAINING

We provide a specialised maritime security module based on the Ukrainian combat-proven simulator platform with over 5,000 trained pilots and more than 100,000 successful combat missions.

02

SYSTEM ARCHITECTURE

The architecture is adapted to port security scenarios, layered defence and rapid response to multi-domain threats.

03

PORT PROTECTION

FPV UAVs, ISR, EW and layered air defence create a comprehensive protection envelope for ports and coastal facilities.

Combat-Proven Expertise for Protection of Port Infrastructure

PORTS UNDER THREAT: A NEW REALITY

»» The world changed after 1 JUNE 2025, OPERATION SPIDERWEB showcased how a swarm of 117 FPV drones bypassed all air defence systems, destroying \$7 billion of strategic assets within minutes. Ports, with their dense infrastructure, are an ideal target for such asymmetric attacks.

»» Traditional radar systems often fail to detect low-altitude drones. Launch points can be as close as 500 metres from the dock, for example, from a parked lorry.

»» Our tailored solution will train your team to detect and neutralise such threats at the deployment stage, using advanced detection and interception methods.

Cost Ratio: 1:20,000

(Defender vs Attacker). Training and Layered Defence are Critical.



TIMELINE OF ATTACK

FPV Launch

A drone swarm launches from multiple points.

Perimeter Breach

Drones cross the facility perimeter.

Impact

The swarm reaches the target. Strike phase begins.

MULTI-DOMAIN SIMULATION

»» From FPV drones to autonomous naval and ground sabotage units.

»» The simulator covers full spectrum of threats: FPV, ISR UAVs, loitering munitions, autonomous surface/underwater vehicles,

»» EW threats and coordinated swarm attacks.

»» Each threat has realistic physical parameters: speed, manoeuvrability, payload, navigation and countermeasure behaviour.

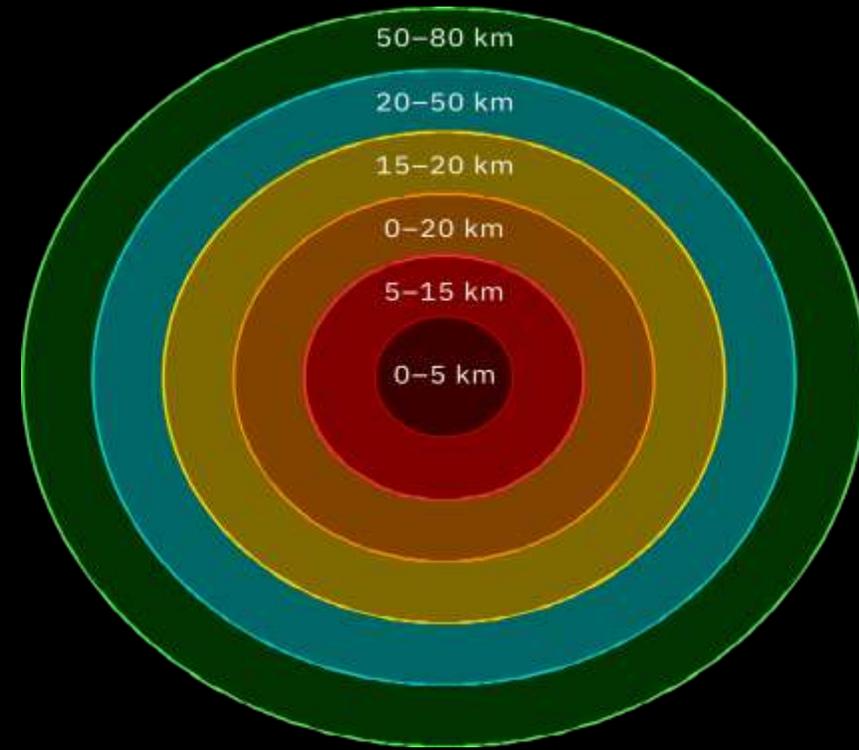
CATEGORY	CONTROL & NAVIGATION	OPERATIONAL TRAITS	DETECTION DIFFICULTY
FPV	RF Control (2.4/5.8 GHz, 433/868 MHz, LTE) + video / Physical cable (control/power)	RF + video link; low altitude; highly manoeuvrable; detectable	2/5
Tethered	Physical cable (control/power)	Visible tether, constant power, RF-immune	3/5
UAV (Autonomous)	GNSS + INS, pre-programmed route	Stable route; no active RF; RF-jam resistant (short-term)	4/5
USV / UUV	GNSS + INS	USV: no RF; UUV: submerged, acoustic nav	3/5
Surface FPV	RF-controlled surface craft	RF only; no AIS	4/5

LAYERED DEFENCE ARCHITECTURE (0-80 KM AIR & SEA)

»» The LAVR multi-domain simulator integrates a six-layer defence model into the simulator, training your operators as part of a unified port security ecosystem, from passive SIGINT systems (up to 80 km) through to active radar assets.

»» The primary focus is the "last mile" (0-15 km), where threats become critical.

»» Operators train mobile response units and counter-drone teams under intensive EW conditions, enabling seamless coordination across multiple security units.



01	STRATEGIC MONITORING 50-80 km Passive SIGINT and long-range surveillance
02	ACTIVE MONITORING 20-50 km Radar tracking and early warning systems
03	SURVEILLANCE ID 15-20 km Visual identification and classification

04	RADAR / EO-IR DETECTION 5-15 km Precision tracking and targeting data
05	ELECTRONIC WARFARE 1-5 km Jamming, spoofing and signal disruption
06	TERMINAL INTERCEPTION 0-5 km Hard-kill and soft-kill neutralisation

INTERCEPTION TECHNOLOGIES

- » Building on the operational experience, we integrate realistic interception physics for both aerial and surface targets without detonation of the warhead.
- » This is critical for ports and fuel terminals, where even a nearby explosion can cause severe damage.
- » Operators will train in non-explosive neutralisation methods, including net-based interception and controlled impact targeting vulnerable components such as propellers, antennas, or control systems, ensuring zero collateral damage to the client's facilities.





MULTI-LEVEL TRAINING PROGRAMME

01

MULTI-LEVEL PROGRESSION

The training program is built on a multi-level progression that has already proven its effectiveness at LAVR UK's drone Academy.

02

ENVIRONMENT FOCUSED

The progression is adapted to the specifics of maritime security - from basic manoeuvring in a complex port environment to coordination of interceptors during large-scale drone attacks.

03

SITUATIONAL AWARENESS

Special emphasis is placed on situational awareness and operations under electronic warfare conditions.

04

RIGOROUS STANDARDS

Personnel are trained to operate in challenging weather and under constant operational pressure, meeting high standards of protection against modern threats.

DIGITAL TWIN & C2 INTEGRATION

- » We develop a high-precision Digital Twin of your critical infrastructure, accurately reflecting real-world geometry and operational constraints.
- » This enables Red Teaming exercises, simulating attacks to identify vulnerabilities and "blind spots" within the existing defence architecture.
- » The platform is compatible with military-grade C2 solutions and can integrate with live sensors, transforming the training system into a real-time decision-support tool during operational incidents.





VISUAL & PHYSICAL REALISM

01

TECHNOLOGICALLY ADVANCED

The new product is built on LAVR's proven technological foundation, combining realistic flight physics with high-fidelity visualisation to accurately replicate drone behaviour in complex operational environments.

02

TERRAIN SPECIFIC HAZARDS

The system models the maritime domain with dynamic waves, storms, fog, and water spray, all of which can directly affect the stability and controllability of interceptors.

03

REAL-WORLD SIMULATIONS

Operators work through an interface identical to real control systems, ensuring immediate skill transfer from simulation to live operations.



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UNDERWATER: AUTONOMOUS UNDERWATER INTERCEPTION SYSTEMS



Autonomous underwater interception systems, based on platforms such as LAVR's simulator solutions, expand the defence architecture with a dedicated underwater protection module. The core concept is to introduce a new response layer without restructuring the existing security infrastructure.



The module integrates into current detection, alert, and targeting networks, forming a concealed underwater defence layer within a unified security framework.

AIR DEFENCE: SAM COMMAND POST & GUIDANCE TRAINER

»» Additionally, we can implement a simplified simulation of a SAM command post, including target detection, tracking, targeting, and engagement decision-making. The system can be used as a training simulator for air defence crews, enabling coordination and interaction under simulated aerial threat conditions.

»» The simulation is built in accordance with safety protocols and the general operational algorithm of air defence units. The module is adapted to the customer's existing radar systems and equipment, considering their technical specifications and operational conditions.





TRAINING FOR THE PROTECTION OF CRITICAL INFRASTRUCTURE



- »» LVR enables the creation of scenarios tailored to the protection of critical infrastructure and public safety.
- »» Missions simulate threats in ports, airports and urban environments, considering real-world constraints and response protocols.
- »» Scenarios combine air, ground and maritime elements, allowing teams to practice detection, coordination and interception in conditions closely aligned with real operational tasks of security services.



DEPLOYMENT AND SUPPORT MODEL

01

LONG-TERM COOPERATION

Cooperation is based on long-term contracts that ensure stability of the training process and predictable system development.

02

PARTNERSHIP

The partnership includes scaling of workstations, module updates, and functional expansion in accordance with

03

CONTINUOUS SUPPORT

Within the contract framework, technical support, regular updates, and scenario adaptation to evolving requirements are provided. This guarantees the simulator's relevance and its integration into a permanent training system.

ADDITIONAL CUSTOMISATIONS

- »» In addition to defined levels (Tiers), LAVR UK provides custom development tailored to the client's operational needs.
- »» This may include the creation of additional training maps (scope and cost depend on size and level of detail), integration of new platforms including air, ground, surface or underwater as well as the development of specialised scenarios and missions.
- »» Implementation of counter-UAS modules, air defence systems and dedicated interception training environments is also possible.



MODULE	DESCRIPTION
Custom Map (e.g. Puerto Lázaro Cárdenas)	Environment creation based on operational terrain and infrastructure
Custom Air Drone Integration	3D model, flight physics, performance parameters, OSD integration
Custom Mission Integration	Mission logic development based on operational requirements
Counter-UAV / Air Defence Modules	Integration of SAM systems, underwater interception modules
Advanced Pilot Evaluation System	Structured performance tracking and scoring module

Each request is assessed individually, considering technical feasibility and defined objectives.



SEGMENT

04

HOW WE TRAIN

OUR PROCESS → DELIVERY → ADDITIONAL INTEGRATIONS



OUR EDUCATION PROCESS

01

Simulation training using simulators, computer systems and virtual environments.

02

Intelligent analytical systems to evaluate combat scenarios and situations.

03

Instructional sessions with leading military experts.

04

Practical training at fully equipped grounds using modern equipment.

05

Direct involvement and cross-collaboration with our R&D engineering labs.





MODERN COMBAT MANAGEMENT

01

AI-INTEGRATED PLATFORM

The academy implements an integrated modern combat management platform combining innovative technologies to improve the efficiency of military operations.

02

AI DATA ANALYSIS

Our AI system is capable of rapidly analysing and comprehending large amounts of battlefield data, proposing optimal strategies in real time.

03

UNIFIED NETWORK

The Command-and-Control system integrates cyber defence modules, electronic warfare systems, robotic platforms and unmanned systems into a single real-time network.

Unified Intelligence: Enhancing Command and Control for the Modern Battlefield



PRACTICAL CLASSES

BATTLE SIMULATIONS

Theoretical battle management using interactive maps to model strategies and tactics.

OPERATIONS PLANNING

Post analysis of combat scenarios drawn from real and recent conflicts.

ANALYTICAL DATA TRAINING

Comprehensive training in threat forecasting, data analysis and battlefield intelligence.

CYBERSECURITY COURSES

Introduction to attack methodologies and protection of sensitive information systems.

TACTICAL DISCUSSIONS

Analytical case studies applying modern technologies to real-world scenarios.



PRACTICAL CLASSES – LABORATORY & TRAINING GROUND

LABORATORY TRAINING

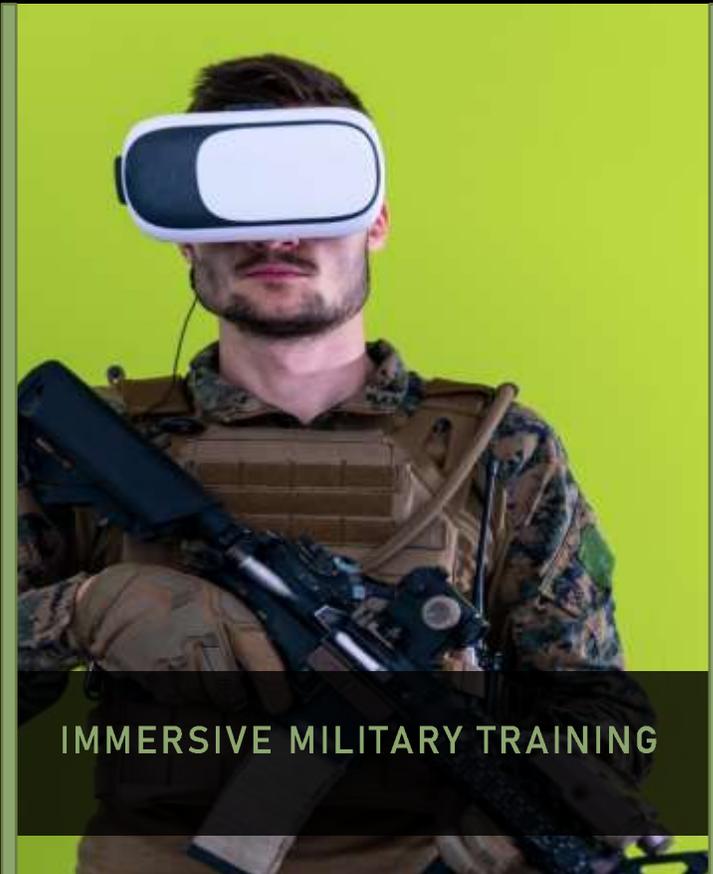
- »» **Testing of Autonomous Systems:** Programming and control of robotic platforms.
- »» **AI Experiments:** Use of algorithms for analysis and decision-making.
- »» **Electronic Warfare:** Detecting and suppressing signals under controlled conditions.
- »» **3D Printing of Military Equipment:** Prototyping and testing functionality.
- »» **Cyber Defence Development:** Analysis of attacks and countermeasures.
- »» **Virtual Battle Scenarios:** Creating strategies for virtual reality simulations.

TRAINING GROUND

- »» **Drone Training:** Deployment and control of drones in combat conditions.
- »» **Electronic Warfare Practice:** Detecting, suppressing signals and restoring communications.
- »» **Hybrid Warfare Scenarios:** Modelling conditions of modern conflict.
- »» **Tactical Exercises:** Development and execution of missions in difficult conditions.
- »» **Autonomous Systems:** Testing robotic platforms in real environments.
- »» **Drone Maintenance:** Calibration, repair and field-readiness checks.



VIRTUAL SIMULATIONS



VIRTUAL BATTLE SIMULATIONS

Managing units in realistic combat scenarios, developing tactical decision-making under live pressure.

CYBER CONFLICT SIMULATIONS

Modelling information system attacks and defence, training operators in cyber resilience.

PILOT SIMULATORS

Practicing control skills in virtual conditions replicating contested environments.

AR BATTLE MANAGEMENT

Interactive augmented reality training for command, navigation and battlefield coordination.

DATA-DRIVEN DECISION MODELLING

Analysing big data to forecast combat outcomes and optimise resource deployment.



ADDITIONAL INTEGRATION OPTIONS

01

COMBINED CLASSES

Classroom theory followed by practical testing on the range, combining academic learning with live deployment skills.

THEORY + PRACTICAL

02

INTER-CADET COMPETITIONS

Competitions between cadets' teams designed to stimulate innovative thinking, tactical creativity and performance under pressure.

TEAM COMPETITION

03

JOINT VR TRAINING

Joint training with allied academies or military units via shared VR platforms, enabling international collaborative exercises.

GLOBAL COLLABORATION



SEGMENT

05

OUR COURSES

COURSE OVERVIEW → *COURSE FORMAT* → *OUR PACKAGES*



UAV & DRONE TRAINING

01

FUNDAMENTALS OF UAV CONTROL

Theoretical training on the design, principles of operation and capabilities of UAVs.

02

TACTICAL APPLICATION

Development of tactics for drone use in reconnaissance, monitoring and artillery adjustment.

03

PRACTICAL CONTROL

Learning how to launch, land, manoeuvre and use automatic flight modes.

04

UAV NAVIGATORS COURSE

Planning, coordination and control of UAV flights in difficult and contested conditions.

05

DRONES ON FIBRE OPTICS

Preparation for drones with fibre optic communication systems for safe control in EW environments.

ADVANCED OPERATIONS

06

REPAIR & MAINTENANCE

Basics of maintenance, repairs, and software updates for UAV systems.

07

MINES-ENGINEERING

Working with ammunition, camouflage and manoeuvres to operators' positions.

08

CYBER DEFENCE

Protecting operators, drones and workplaces from hacking and cyberattacks.

09

DATA ANALYSIS

Working with data from UAV cameras and sensors using artificial intelligence systems.

10

COUNTERING ELECTRONIC WARFARE

Signal detection and identification. Working under radar interference. Remote antennas and repeaters.



COURSE DURATIONS & FORMAT

COURSE	DURATION
Multicopter Drone Operator	1 Month
FPV Drone Operator	1.5 Months
Drone Operator 'Wing'	2 Months
Electronic Warfare: Comms, Electronic Intelligence, Starlink	1 Month
Cybersecurity in UAV Operations	1 Month
Ground Robotic Systems	1 Month
Operational Mine Clearance	1 Month

TRAINING LOCATIONS

Flight ranges, simulation and training centres with computers and VR/AR elements.

COURSE FORMAT





SPECIALIST COURSES

01

OPERATIVE DEMINING

Terrain: Populated Areas · Plains · Mountains

Comprehensive training in mine clearance operations across diverse terrain types. Students learn systematic search patterns, equipment handling and safe neutralisation procedures in simulated and live environments.

MINE CLEARANCE

02

MODERN DAY C2

Command and Control

Advanced command and control systems training integrating AI decision support, real-time battlefield data analysis, and multi-unit coordination using current operational platforms.

COMMAND & CONTROL

03

CYBERSECURITY IN DRONE OPS

Protecting UAV Systems and Operators

Specialist training in protecting drone networks, communications and operator workstations from cyberattacks. Covers attack vectors, signal interception, firmware protection and operational security.

CYBER DEFENCE



ADDITIONAL COURSES

BATTLE PLANNING & MANAGEMENT

A comprehensive tactical lesson covering mission planning, resource deployment etc.

SURVIVAL & RECONNAISSANCE TRAINING

Field survival, terrain navigation, reconnaissance techniques and evasion in hostile environments.

MILITARY TOPOGRAPHY & PSYCHOLOGY

Map reading, terrain analysis and psychological conditioning for sustained combat effectiveness.

MILITARY SIGNALS & COMMUNICATIONS

Secure communications protocols, signals intelligence and radio operations under contested conditions.

AAR — AFTER-ACTION REVIEW

Structured review methodology, lesson capture and iterative performance improvement.

LOGISTICS IN MODERN WARFARE

Supply chain management, resupply under fire, and equipment lifecycle in demanding environments.

COUNTERING THE SHAHED

Dedicated module on detecting, tracking and neutralising Shahed-class loitering munitions using air defence.



SERVICE PACKAGE #1 – TACTICAL READINESS

PACKAGE OVERVIEW

Rapid access to a combat-proven training base, purpose built for organisations requiring immediate capability uplift.

Includes baseline scenarios for FPV interception and basic port defence, enabling immediate operational readiness.

DELIVERY

4–6 Weeks

TEAM SIZE

3–6
Specialists

TYPE

Entry Level

WHAT'S INCLUDED

- »» Base Simulator Platform
- »» Maritime Port, Airport and Urban Maps
- »» Standard Radar & Alert Systems
- »» Hostile Aerial and Surface Drones
- »» Drone Interceptors (Net & Kinetic)
- »» Technical Support for Installation & Ops

SERVICE PACKAGE #2 – SOVEREIGN DEFENCE (PORTS™)



PACKAGE OVERVIEW

A customised, end-to-end system fully integrated with your facilities. This package delivers a digital twin of your port, including tailored training scenarios and seamless integration electronic warfare sensors.

DELIVERY

8-12 Weeks

TEAM SIZE

7-15
Specialists

INCLUDES

Digital Twin

WHAT'S INCLUDED

- »» Simulator Platform with Custom UI
- »» 80x80 km Port Map with Custom Units
- »» Modified Radar and Custom Alert System
- »» 100 License Keys (12 Months)
- »» 1-Year of Updates, Fixes & Documentation
- »» Language Support (Up to 5 Languages)



SERVICE PACKAGE #3 – STRATEGIC RESILIENCE

PACKAGE OVERVIEW

Our most comprehensive and transformative engagement, designed to build capabilities from the ground up including joint R&D for anti-drone and multi-domain defence.

Co-development of new interception modules, AI analytics and tailor-made threat libraries and embedded engineering support.

DELIVERY

20–48 Weeks

TEAM SIZE

20+
Specialists

TYPE

Joint R&D

WHAT'S INCLUDED

- »» Simulator Platform with Custom Branded UI
- »» Co-Development of Interception Modules
- »» AI Analytics
- »» Tailor-Made Threat Library Creation
- »» Long-term R&D Partnership Agreement
- »» Continuous System Updates & Iteration



SEGMENT

06

SUMMARY & NEXT STEPS

OVERVIEW → *RESULTS* → *ENGAGEMENT*



OUR RISE ACADEMY INCLUDES

01

INNOVATIVE MILITARY SOLUTIONS

Testing and implementation of innovative solutions, including latest approaches to modern warfare.

02

PROFICIENT TRAINING PROGRAMMES

New-generation training on modern warfare tactics, delivered by combat-proven experts.

03

PRACTICAL TRAINING INFRASTRUCTURE

Robotics labs, VR/AR centres and live flight ranges for hands-on, mission-ready training.

04

ANALYTICS & FORECASTING

Regular analytical reports and forecasts. Specialist training in AI-powered battlefield intelligence.

05

SECURE INFORMATION SYSTEMS

Systems protecting operators, drones and C2 infrastructure from cyber threats and EW.

06

INTERNATIONAL KNOWLEDGE NETWORK

Conferences, hackathons, symposia and joint exercises with global partners.



RESULTING IN

HIGHLY TRAINED SPECIALISTS

01

Graduates with deep expertise in cybersecurity, electronic warfare, autonomous systems management and modern military strategy.

ENHANCED CYBER, EW & AUTONOMOUS CAPABILITY

02

Systematic uplift in cybersecurity, electronic warfare and autonomous systems.

MODERN MILITARY STRATEGY INTEGRATION

03

Development and integration of modern military strategy incorporating AI analytics, C2 systems and multi-domain operational doctrine.

INCREASED DEFENCE CAPABILITY

04

Measurable increase in overall defence readiness, from individual operator proficiency to organisational resilience against hybrid and asymmetric threats.



NEXT STEPS

01	INITIAL CONSULTATION <i>Discovery & Scoping</i>	An introductory session to understand your operational requirements, capabilities and training objectives.
02	SCENARIO DESIGN <i>Tailored to Your Environment</i>	Training scenarios based on your threat landscape, from port security to multi-domain operations.
03	SERVICE LEVEL AGREEMENT <i>Package & Timeline Confirmation</i>	Agreement of your chosen service package, delivery timeline and the specialist team for your programme.
04	FULL PROGRAMME DELIVERY <i>Embed, Train, Iterate</i>	Full programme deployment with RISE specialists, iterating content based on live performance data and operational feedback.