

Forward Operational Base (FOB) protection



The growing use of armed drones with low flight altitude, high speed, and no RF signature, integrated with advanced technologies, has become an increasing security threat to Forward Operational Bases. Perimeter protection missions in a complex environment and under demanding conditions require multiple integrated resources, with dedicated special units, ground and aerial platforms and multi-sensor networks capable of detecting, identifying, and intercepting threats from drones, vehicles and humans approaching the base.

Improving situational awareness and threat warnings from all directions with highly maneuverable, sophisticated autonomous platforms that can perform day and night wide area surveillance equipped with advanced sensing and analytics capabilities are a strategic and tactical imperative for effective monitoring and protection of FOB under any threat environment.

Using robotic solutions for 7/24 wide area ground and aerial surveillance requires sophisticated technologies to deploy, control and coordinate highly autonomous UAS and UGV. Effective planning, control and execution of autonomous swarm missions for perimeter protection requires integrated flight and payload management capabilities to detect and identify multiple ground and aerial threats in real time and process a vast amount of sensor data, supported by a comprehensive networked solution.

The solution: Legion-X

The Legion-X robotic and autonomous system enables control and coordination of a networked group of heterogeneous autonomous systems that can act as a cohesive unit and individually, as part of an overall combat network system. Modular, flexible and scalable, the advanced control solution enables combat teams and expeditionary units to deploy, operate and manage connected human-machine formations, leveraging advanced technologies to gain a tactical advantage.

A comprehensive, all-in-one system for planning, operation and management of unmanned platforms, Legion-X meets the evolving challenges of force protection in the modern battlefield, with core capabilities that increase survivability and mission success.

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Legion-X offers an integrated solution for management of autonomous ground and aerial perimeter monitoring missions, with advanced planning, control and execution capabilities for optimal coverage and protection of forward operational bases.

The solution supports manned and unmanned heterogeneous fleets, incorporating a range of robotic platforms with various payloads for aerial observation and automatic threat interception (non-kinetic), as well as arrays of unattended ground sensors, delivering real-time data integration and analytics. The FOB solution enables deployment of autonomous swarms 7/24, in all terrain and weather conditions.

Heterogeneous swarms include:

- Observer drones with aerial radars
- Observer drones with EO/IR automatic tracking capabilities
- UGVs with ground radar, optical payloads and weapon systems
- UGVs with tethered drone in a box

Kit Components:

- An autonomous kit for FOB protection in a 0.5 km x 2 km area includes:
- 2 UAS for aerial observation and target detection with day/night EO and ATR
- 1 UAS for target acquisition with day/night EO, ATR
- 1 UGV – ROOK high mobility, multi-purpose 6x6 unmanned ground vehicle with ISR Payload and or RWS or with a tethered drone in a box.
- Deployable network: E-LynX™ LX
- Legion-X AM-PM intuitive HMI: Autonomous mission planning and execution
- End-user devices (dismounted tablet)