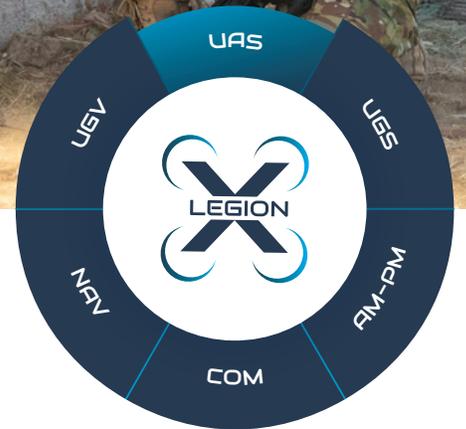


LANIUS

Drone-based loitering munition for complex environments



Part of the Legion-X robotic combat solution, LANIUS is a highly maneuverable and versatile drone-based loitering munition designed for short-range operation in the urban environment. The system can autonomously scout and map buildings and points of interest for possible threats, detecting, classifying and syncing to Elbit Systems' Legion-X solutions. LANIUS can carry lethal or non-lethal payloads, capable of performing a broad spectrum of mission profiles for special forces, military, law enforcement, and HLS.



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System Highlights

The LANIUS loitering weapon system maneuvers close to the target and uses video analytics to determine entry points into a structure, map the inside of unknown buildings performing simultaneous localization and mapping, and identify combatants and non-combatants among the building occupants. The system is equipped to defeat threats using explosive payloads with man-in-the-loop control.

Command and Control: LANIUS has two operational modes:

- Legion-X interfaces for command and control, real-time video and data synchronization, and direct viewing capability
- Standalone operation – a handheld unit with Human-Machine Teaming (HMT) advanced interfaces.

Autonomous operation: An onboard companion computer interfaces with the camera assembly and drone flight computer for autonomous control. The computer can execute a full flight profile, takeoff, navigation, and scouting, without user intervention.

Scout and detect: LANIUS is equipped with cameras fitted with multiple visual sensors and IMU. The system incorporates algorithms, using image processing to identify points of interest and displays relevant data and identification information to the operator. Threat classification and location are synced in real-time with Legion-X or standalone applications.

Engagement: LANIUS can carry lethal or non-lethal payloads to eliminate or neutralize the target. A dedicated integrated arming mechanism allows for safe transition between safe-to-arm operational modes. Attack missions require man-in-the-loop control to approve fire procedures.



Operational Advantages

- BLOS ISR and attack capabilities (search and attack in one for complex environments)
- Equipped to engage with target (man-in-the-loop)
- Extreme maneuverability
- Minimal user interaction
- Low collateral damage

Key Features

- Legion-X compatible
- Racer Quadcopter drone frame and motor – high-speed engagement
- Navigation and mapping indoor/outdoor/transition
- Onboard computing power supporting AI advanced algorithm for collision avoidance/mapping/classification
- Wi-Fi or SDR communication
- Highly autonomous tactical sUAS

Technical Specifications

Parameter	Description
Dimensions LxWxH	294 x 294 x 167 mm – not including battery
Max takeoff weight	1.25 kg
Payload weight	0.150 kg
Operational speed	Up to 20 m/s in an outdoor environment
Flight time	7 minutes
Battery type	Li-Po 4 Cell, 14.8 V, 1800 mAh
Companion	NVIDIA Jetson TX2
Communication	Wi-Fi / SDR



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