

# SwarmMATE™

Swarming unmanned systems for real-world missions.



## WHAT IS IT?

SwarmMATE™ is a transformative software capability that provides new levels of intelligence, autonomy, and performance to autonomous unmanned systems (UxS) teams. This advanced framework encapsulates the latest advances in open systems and modularization, leveraging swarm design principles and patterns SoarTech has researched and developed for over 20 years. SwarmMATE™ is truly a revolutionary platform for enabling the future of warfare.

## HOW DOES IT WORK?

SwarmMATE™ brings advanced, distributed, AI decision-making technology onboard your air, ground, or marine UxS. It controls the swarm, rapidly adapting and replanning in real time to unforeseen situations while providing intelligence and delivering desired effects deep in denied territory with remarkable efficiency and effectiveness.

## WHAT DOMAINS CAN IT IMPACT?

Autonomy ♦ Urban, Remote, and Maritime ♦ Air, Ground, Space, Surface, and Underwater Platforms ♦ Manned-Unmanned Teaming

## Capability Overview

- **Maintains a tactical advantage** by equipping UxS with advanced AI onboard that reasons tactically like a human, coordinating UxS teams, overwhelming enemy defenses and ensuring mission success.
- **Achieves new levels of adaptability and resilience** by incorporating novel swarm intelligence that reacts quickly to the adversary, adapting to new threats and targets dynamically, with no single point of failure.
- **Inspires user confidence and acceptance** using verification and characterization tools to predict and ensure swarm mission success within specified mission objectives, constraints, and ROEs.
- **Flexibly integrates with your systems** using a modular and open distributed autonomy framework that leverages proven swarming algorithms already integrated with several government autonomy frameworks.

## Proven Use Cases

- Intelligence, Surveillance, Reconnaissance (ISR)
- Perimeter patrol
- Target tracking
- Communication relay
- Coordinated sensor control
- Coordinated sensor strike

## Let's Chat!

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