



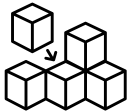
DarkWake™ AUV

ADAPTABLE AUTONOMY.
OPERATIONAL AGILITY AT SCALE.



ENABLING NEXT-GENERATION AUTONOMOUS UNDERSEA OPERATIONS

Reshaping the autonomous underwater vehicle (AUV) industry with flexible, build-to-suit solutions that evolve alongside mission objectives.



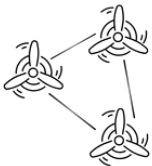
Modular, Mission-Configurable Architecture

Rapid-swap payloads and upgradeable subsystems tailored to defense, commercial, and scientific objectives.



Integrated Autonomy Ecosystem

AI-driven mission planning, vehicle control, simulation validation, and fleet-wide data integration.



Multi-Vehicle Mesh Networking

Seamless acoustic, RF, cellular, and satellite connectivity enabling collaborative autonomous operations.



Reduced Lifecycle Cost & Complexity

Plug-and-play upgrades, simplified logistics, and future-ready design minimize operational overhead.

HELIOS VERTICALLY INTEGRATED SOFTWARE ARCHITECTURE

- **Helios Command** — Objective-based mission planning and C2. Define the goal; Helios orchestrates the swarm.
- **Helios Autonomy** — Edge-native autonomy engine delivering real-time decision-making, dynamic re-tasking, and adaptive mission optimization with zero operator input.
- **Helios Comms** — Resilient mesh networking across all nodes, built for contested and communications-degraded environments.
- **Helios Cloud** — Fleet-wide telemetry and mission data hub, with continuous learning that makes every mission smarter than the last.
- **Helios Sim** — Faster-than-real-time physics simulation for mission rehearsal, operator training, and post-mission playback.



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BASE DARKWAKE™ FEATURES

Depth Rating - 100m-300m depth (deeper options available)

Variable Ballast - Smart ballast with orientation control

Body - Convertible spine with shape-optimized carbon fiber shell

Design - Flooded architecture with swappable universal housings for rapid servicing

Endurance - 12+ to 30+ hrs with 1.2 - 6kWhrs + Configurations

Operations - Bottom park, drift mode, 2.5-4.5 kts survey speeds

M4P Multi-Modal Comms - WiFi, Iridium (SBD), LTE and acoustic

Articulating Antenna Mast - LTE/GPS/WiFi with navigation LEDs (cameras optional)

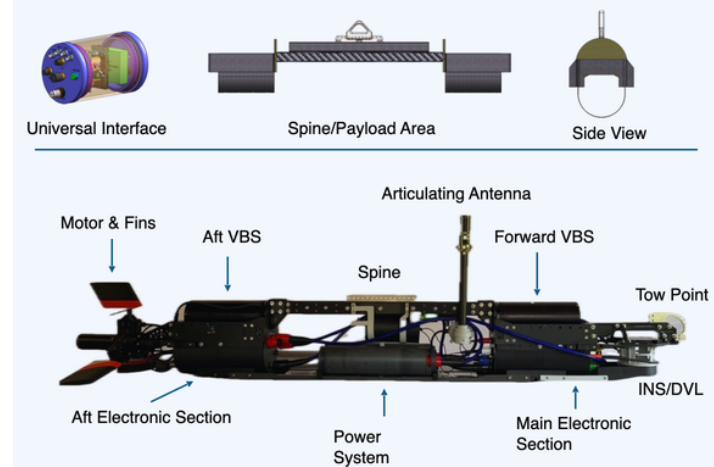
Navigation - GPS (RTK support), IMU, DVL, INS

Pressure Sensor - Standard resolution depth configuration (optional high resolution models)

Energy - Standard 18650 cells or solid-state lithium-ion options with PSFi safety BMS electronics

Onboard Electronics - Jetson Orin nano (ROS embedded), 2TB SSD

Propulsion - ECM PCB Stator motor



ADDITIONAL DARKWAKE™ CAPABILITIES

Universal Interface - Custom payload integration

Water Quality Sensor - Conductivity, temperature, sound speed (Others Available Upon Request)

Side Scan Sonar - 540/1600 kHz, 540/850 kHz, 850/1600 kHz and other options

Topside Comms Kit & Global Data Plans

Fleet Data Cloud Services

Support Equipment - Cases, transport cart, spares kit, pingers, additional batteries, rugged operator console

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