



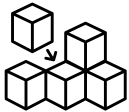
# DarkWake™ AUV

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.



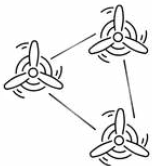
### Modular, Mission-Configurable Architecture

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)

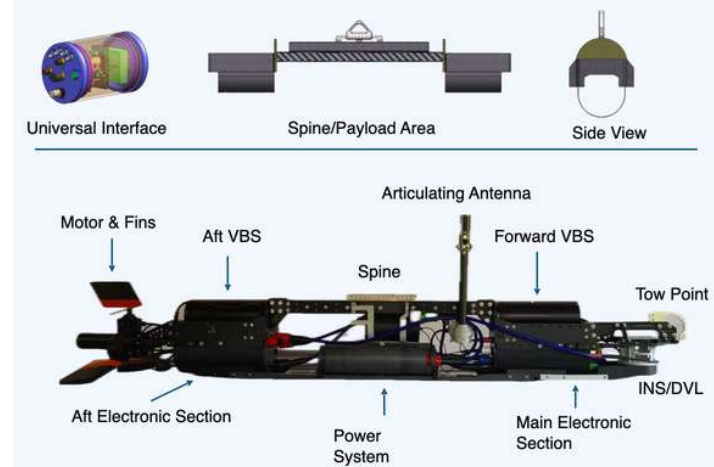
**Navigation** - GPS (RTK support), IMU, DVL, INS

**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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