

Nautic Technologies



Company Overview

Nautic Technologies addresses significant safety challenges faced in diving operations, particularly across Defence, commercial and rescue environments. These operations are exposed to risks arising from human error, equipment failure and the high cognitive demands placed on divers in complex underwater environments. Traditional diving systems provide limited real-time monitoring, delayed incident response and minimal redundancy, increasing the risk of injury or fatality during critical underwater operations. Nautic's technology is designed to reduce operator cognitive load, enhance real-time situational awareness and provide additional layers of automated safety and redundancy.

NAUTIC Technologies enhances diver safety through its intelligent state-of-the-art Automated Buoyancy Control System – an integrated life-support and control platform that provides real-time monitoring, automated emergency response, and enhanced buoyancy control. By enabling active feedback and control, it reduces reliance on manual actions, improves situational awareness, and significantly mitigates risk to life in underwater operations.

Priority Market Sectors:

- Defence Diving (e.g., ADF, special forces):
 - Mission-critical focus on survivability, control, and situational awareness.
 - Alignment with sovereign capability and defence innovation initiatives.
- Commercial Offshore Diving (e.g., oil & gas, subsea maintenance):
 - Driven by the need for incident prevention, automation, and system integration.
 - Value proposition in reducing downtime and improving operator safety.
- Rescue & Emergency Services (e.g., Police, Fire, SES dive units):
 - Rapid deployment and automatic recovery features directly support first responders.
 - Designed for reliability in unpredictable and high-stress conditions.
- Recreational Diving (growing opportunity):
 - Strong potential in global markets, particularly Asia-Pacific and Europe.
 - Enhances safety for less experienced divers and supports tourism operators.
 - Offers scalable, simplified tech adapted from high-performance systems.

Products

- Addresses critical safety gaps in military, commercial, and rescue diving operations
- Relevant to Defence, offshore energy, emergency services, and scientific diving sectors
- Enhances diver survivability through automated buoyancy control and emergency ascent features
- Offers real-time physiological and environmental monitoring to reduce human error
- Complements existing rebreather and SCUBA systems with modular integration
- Enables remote monitoring and decision-making for supervisors topside
- Designed to operate in harsh, high-risk underwater environments
- Reduces training burden by simplifying complex manual procedures
- Scalable across both defence and civilian markets, including export potential



Discriminators

- Smart Buoyancy Control Device (BCD): First-of-its-kind system with automated, sensor-driven buoyancy adjustments
- Integrated Emergency Response: Built-in fail-safes trigger automatic ascent in critical scenarios
- Real-Time Monitoring: Tracks diver vitals and environmental data for immediate decision-making
- System Redundancy: Dual-layer safety architecture reduces single-point failures
- Plug-and-Play Compatibility: Seamlessly integrates with existing dive systems (SCUBA/rebreather)
- Mission-Critical Design: Engineered to meet Defence-grade durability and reliability standards
- Australian-Owned IP: Sovereign capability supporting AUKUS and local Defence industry growth
- Human-Centred Engineering: Reduces cognitive load on divers under pressure
- Dual-Use Potential: Applicable to both military and commercial/rescue diving operations
- Modular Architecture: Enables scalable upgrades and customisation for specific mission profiles

Availability and Support

Technology Status – TRL 6:

- NAUTIC's Smart BCD has been demonstrated in relevant underwater environments.
- Key safety, control, and system integration features have been validated.
- Currently progressing towards TRL 7 with robust testing and refinement planned.
- Anticipated pilot production readiness within 12–18 months, subject to investment and partnerships.
 - Long-term plan includes sovereign manufacturing and support capability within Australia.

Availability:

- Pre-commercial prototype stage; currently not market-released.
- Market engagement and co-design underway with lead users in Defence and industry.

Support & Sustainment:

- Full through-life support strategy being developed, including:
 - User training and operational manuals.
 - Remote diagnostics and software updates.
 - Component servicing, spares, and upgrades.

Key Partnerships (Suppliers)

- Keller Technologies
- MEKTRONX Engineering
- COMCO Manufacturing

Key Programs and affiliated Universities

- University of Adelaide (Australia) *Defence Trail Blazer*
- University of New South Wales (Australia) *Defence 10X*

Key Partnerships (Consulting)

- Baxter IP
- Goodman Solutions
- Steve Winnall Business Consulting
- Step-In CTO
- Armour IP
- Roidan & Roidan Law Firm
- Wealth Visory Accountancy
- RBC Australia

Quality Accreditations and Awards

- 2025 - Finalist - Australian Defence Industry Awards - Innovator of the year (Individual)

Contact Details

Josh Lee
CEO and Founder
Nautic Technologies

M: +61 438 192 984
E: josh.lee@nautictechnologies.com.au

Robert Lee
Chief Operations Officer
Nautic Technologies

M: +61 437 862 698
E: robert.lee@nautictechnologies.com.au

www.nautictechnologies.com.au

