DEFENCE TRAILBLAZER
CONCEPT TO SOVEREIGN CAPABILITY

CAPABILITY PROSPECTUS

In the spirit of reconciliation the Defence Trailblazer for Concept to Sovereign Capability acknowledges the Traditional Custodians of country throughout Australia and their connections to land, sea and community.

We pay our respect to their Elders past and present and extend that respect to all Aboriginal and Torres Strait Islander peoples today.

SUPPORTED BY

Australian Government
Department of Education

A COLLABORATIVE PARTNERSHIP BETWEEN

THE UNIVERSITY of ADELAIDE

UNSW

ABOUT US

OUR PRIORITIES

In partnership with industry, the University of Adelaide (UoA) and UNSW, the Defence Trailblazer is accelerating the commercialisation of research to strengthen Australia's defence sovereign capabilities.

OUR OBJECTIVES

- Accelerate the commercialisation of research at speed and scale for the Australian Defence Force (ADF)
- Develop education training pathways to address skills gaps and defence sector's workforce needs now and in the future
- Fast-track entrepreneurs and innovators' ideas to commercialisation
- Enhance collaboration between industry, government and academia.

$200M+

investment to accelerate innovation to support Australian defence sovereign capability

66+

industry-academia projects underway

40+

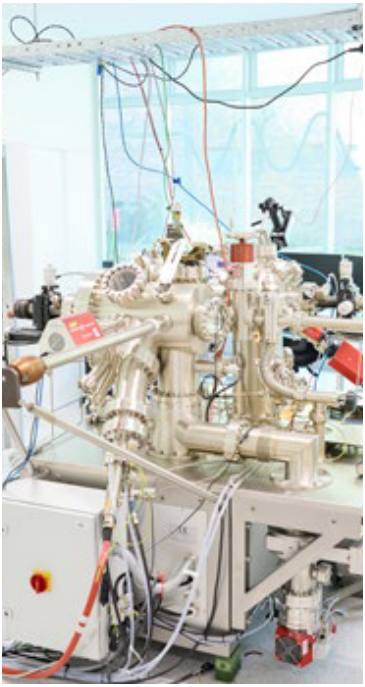
industry partners, including start-ups, SMEs and defence primes

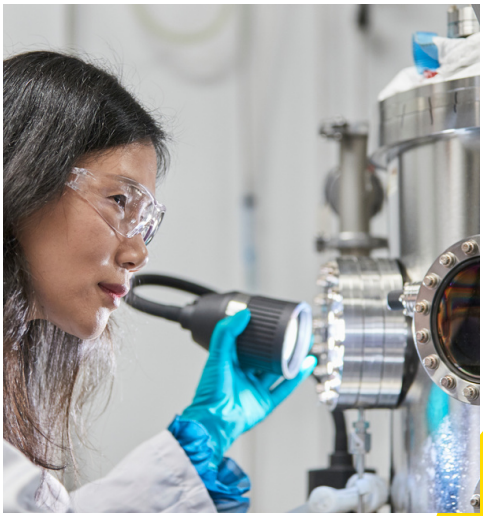
UNSW

UNSW is a research-intensive university ranked in the world's top 20 universities. UNSW aspires to be Australia's global university, improving and transforming lives through excellence in research, outstanding education and a commitment to advancing a just society.

The UNSW Defence Research Institute (DRI) enables UNSW to bring its research strengths to bear in solving complex defence problems and in translating world-class research into competitive advantages for the Australian Defence Force (ADF), industry and Australia's likeminded international partners in the Indo Pacific region.

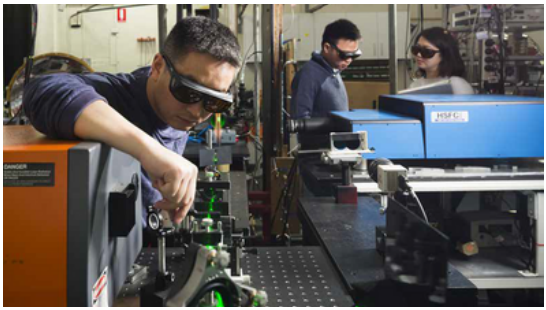
UNSW is the only Australian national academic institution with an integrated defence focus and boasts a proud 56-year history of educating Australian and allied military personnel.





For more information, contact:
info@dri.unsw.edu.au

UNIVERSITY OF ADELAIDE



The University of Adelaide is a destination of choice for world-leading defence-focused researchers, high-achieving students, and government and industry partners.

Many academic staff across all University of Adelaide faculties are actively involved in defence-related education and research. This vast pool of expertise includes:

- scientists working on advanced sensing technology, including radar, photonic sensors and ultra-high precision cryogenic sapphire clocks
- lawyers and policy researchers looking at contemporary challenges in global security, and military and space law
- researchers in arts and social sciences looking at regional defence and security policy.
- mathematicians and computer scientists analysing large data sets through machine learning and advanced statistics, and developing optimisation techniques for defence and space applications
- psychologists and health scientists working on human factors and veterans' post-traumatic stress
- engineers focusing on communication networks, autonomous systems, robots, noise cancellation and advanced materials

For more information, contact:
Professor Michael Webb, Director – Defence, Cyber & Space
+61 8313 8261 | michael.webb@adelaide.edu.au

OUR PARTNERS


INOVOR
TECHNOLOGIES


leidos


LEOLABS


LOCKHEED MARTIN
Australia


NORTHROP
GRUMMAN


PRAETORIAN
AERONAUTICS
PROTECT • DEFEND • DETER


QUANTX
LABS


Raytheon
Australia


SAAB
TECHNOLOGIES
SAAB


SEASKIP


Silanna
Group


SILENTIUM
DEFENCE
SEE WITHOUT BEING SEEN


Silex
Systems Limited


Silicon
Quantum
Computing


SKYKRAFT


SOUTHERN
LAUNCH


SPACE
MACHINES
COMPANY


SRC
Aus


SUPASHOCK
ADVANCED TECHNOLOGIES


THALES
Building a future we can all trust

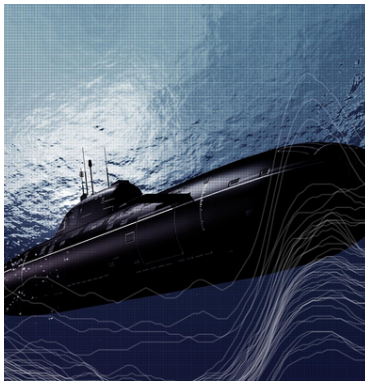

VIDEN

OUR PARTNERS

ACACIA SYSTEMS

Acacia is a leading Australian defence software and systems engineering company engaged primarily in developing advanced mission management systems and tactical support applications.

The company maintains significant depth of skills in the areas of data fusion, tracking, sensor performance, data analysis and environmental mathematical modelling. Translating these into advanced deployed systems is achieved through the application of disciplined systems, software and hardware engineering practice.



SUPPORTING THE AUSTRALIAN DEFENCE FORCE SINCE 1992

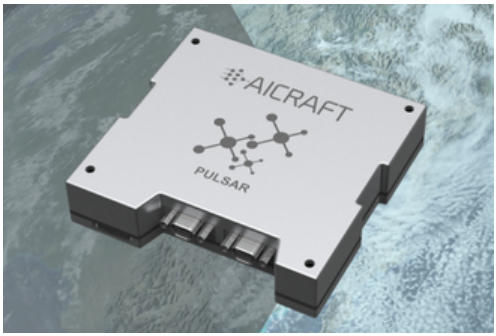
For more information, contact: enquiries@acaciasystems.com.au

OUR PARTNERS

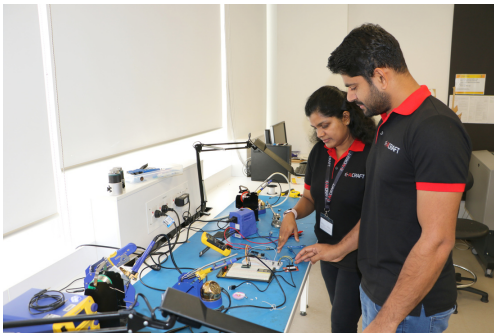
AICRAFT

AICRAFT designs and manufactures low-power smart computing systems with artificial intelligence (AI) and machine learning (ML) capability for space and industrial applications.

AICRAFT's innovative products enable real-time Big Data processing for immediate decision making, longer operations uptime and extended system lifespan than what is currently on the market. This allows same performance levels to be achieved onboard platforms rather than with typical ground infrastructure.



With an embedded compiler, AICRAFT can uniquely conduct training and inferencing at the edge.



AICRAFT can assist clients by integrating smart computing technology in optical and telecommunication systems, navigation and control systems, AI-driven power control units and more.

For more information, contact: hello@aicraft.com.au

BABCOCK AUSTRALASIA

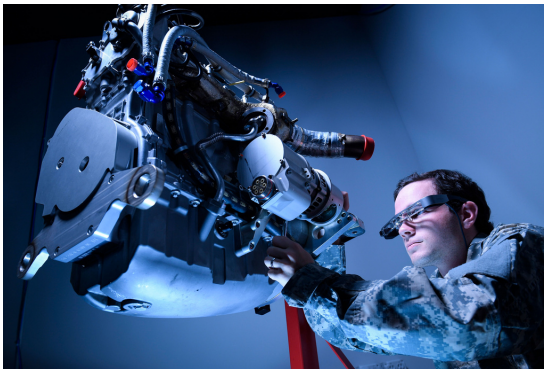
Babcock is an international defence company operating in the UK, Australasia, Canada, France and South Africa. Babcock supports and enhances defence capabilities and critical assets, and meets customer requirements of value for money, increased availability, modernisation and flexibility.

Backed by decades of experience in Defence across the globe, Babcock are the premier warship sustainment company in Australasia, and a proven and trusted leader in submarine sustainment, nuclear safety and stewardship.

For more information, contact:
enquiries@babcock.com.au | +61 8 8440 1400

CAE AUSTRALIA

CAE is the world's leading training and simulation partner serving global defence, civil, and healthcare markets. We support customers navigating complex operational challenges by integrating the right training, at the time and place of need. From individual and crew training to joint and combined exercises and mission support, CAE solutions provide the essential environment and tailored training to build and maintain superior readiness for operations.



Across Australia, CAE supports defence and civil customers with a significant presence that today includes more than 300 highly-skilled employees across 16 sites. Leveraging investments and advancements in adaptive learning, artificial intelligence, machine learning, and integrated learning environments, CAE presents an innovative approach to training design and delivery, enabling Australia to develop and sustain mission-ready personnel.

CAE Australia is committed to delivering training excellence on platforms such as the Royal Australian Navy MH-60R, and the Platforms and Systems Training Contract (PSTC) delivering and enhancing training capability of Australia's future mariners. We are proud to be Australia's leading provider of individual, team, unit, and collective training for over 29 years. From entry-level training devices and courseware to the networking of advanced full-mission simulators operating in a joint environment, CAE is continuously innovating and adapting to meet the evolving needs of its customers. To see how, visit cae.com.

For more information, contact:
caeaus@cae.com.au | +61 2 9748 4844

CHIRONIX

Chironix is an Applied Robotics Solutions Developer, with a specialisation in field robotics. Their focus is on the Defence Industry and the Resources Industry, both of whom we know to be safety conscious and are seeking system level efficiencies. Chironix's Research & Development practices, combined with their Software Development and Systems Integration experience, put them in a position to service Defence Science and the Defence Industry.

Chironix has a strong history with the Departments of Defence for Australia and the United States, positioning their capability in Research & Development arms for Defence Science organisations. Their provision of goods and services to Tier One Resources companies has kept Chironix in touch with the needs of the Defence Industry. Chironix has a value proposition in their ability to service those who service Defence.

For more information, visit: www.chironix.com

CINGULAN SPACE

Cingulan Space is a 100% Australian company focused on bringing ground segment service solutions to LEO/MEO satellite customers. Cingulan Space is vendor-independent and work to partner with customers to help them achieve their satellite mission.

Cingulan Space's deep knowledge and experience means they understand all things satellite - orbits, platforms, payloads, launch, operations, licensing and approvals - and understand the challenges our customers face. Cingulan Space can provide satellite tracking ground segment services to commercial as well as government customers.

For more information, contact: groundsegment@cingulan.com.au

CISCO

Connecting is inherently inclusive, and we're all about it. Everything we do—every innovation we unleash—serves our purpose: to power an inclusive future for all. If you can imagine it, we will build a bridge to get you there.

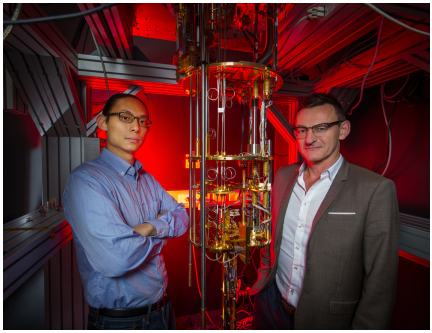
CISCO.
THE BRIDGE TO POSSIBLE.

Cisco offers an industry-leading portfolio of technology innovations. With networking, security, collaboration, cloud management, and more, we help to securely connect industries and communities.

For more information, visit: www.cisco.com

DIRAQ

Diraq's goal is to revolutionise full-stack quantum computing by driving qubit numbers on a single chip to the many millions, and ultimately billions needed for useful commercial applications.
Specifically, Diraq is a world leader in building quantum processors using silicon 'quantum dot' technology, leveraging over two decades in engineering and research expertise at UNSW Sydney and backed by an extensive, global IP portfolio.



Diraq's platform architecture is purpose built to drive the significant processing advances required to reduce cost and energy barriers and to realise quantum computing's full societal and economic potential. By capitalising on existing chip fabrication technology and the ability to manufacture qubits at scale within current semiconductor facilities, Diraq is accelerating the change that can transform computing as we know it today.

Diraq is an industry partner to the Quantum Materials, Technologies & Computing stream of the Defence Trailblazer initiative. This uniquely positions Diraq to accelerate the momentum of current R&D programs and to pioneer transformative approaches in the Defence sector.

For more information, visit: www.diraq.com

OUR PARTNERS

DTEX SYSTEMS

PREVENT DATA LOSS WITH BEHAVIOURAL INTENT INTELLIGENCE

DETECT INSIDER RISKS WITH DYNAMIC RISK SCORING

MAINTAIN PRIVACY AND COMPLIANCE WITH HUMAN TELEMETRY

ACCELERATE INCIDENT RESPONSE WITH REAL-TIME FORENSICS

As the global leader for insider risk management, DTEX empowers organizations to prevent data loss and support a trusted workforce by stopping insider risks from becoming insider threats. Its InTERCEPT™ platform consolidates the essential elements of data loss prevention, user behavior analytics and user activity monitoring in a single light-weight platform to detect and mitigate insider risks well before data loss occurs. Combining AI/ML with behavioural indicators, DTEX enables proactive insider risk management at scale without sacrificing employee privacy or network performance

For more information, visit: www.dtexsystems.com

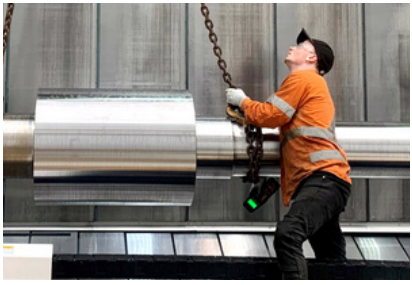
EILBECK HEAVY MACHINIG

Eilbeck Cranes is a 100% privately owned Australian business with over 118 years of manufacturing experience, leading Australia's manufacturing and fabrication industry.

Eilbeck Heavy Machining is facilitated with large fabrication, welding, machining, heat treatment and painting capability. The high quality consistently produced among these fields is recognised with repeat orders and positive feedback from clients - both on a corporate level and within the private sector. Throughout Eilbeck's nine fabrication facilities across the country, we are equipped to weld to AS1554.1, AS1554.4, AS1554.5 & 1554.6, and many other standards as needed. Additionally equipped with steel shot and garnet blast booths, large paint bays, mechanical assembly areas, shrink fitting services and a state-of-the-art CNC machining Facility, competing with the most giant and most modern machines and facilities throughout Australia. Eilbeck Cranes, additionally, has Engineering teams readily available to offer design and engineering services.

Eilbeck have the ability, knowhow and drive to invest and create capability for Eilbeck and Australia in any field of manufacturing if the opportunity is seen to be fit.

Eilbeck Machining is ISO9001, ISO 45001 & ISO 14001 certified and have QA systems in place for all fabrication, machining, and protective coating services - these are on offer to the client if required.



For more information, visit: www.eilbeckheavymachining.com

ELYSIUM EPL

Elysium EPL works with Australian businesses and governments to solve complex problems and enable successful transformation.

Elysium EPL delivers comprehensive solutions with enduring value through:

- The provision of trusted advice and tailored solutions focused on achieving our client's outcomes
- A multidisciplinary approach that draws on our specialists' rich experience in Defence, national security and intelligence, industry and government
- A deep understanding of how government works and the strategic environment
- Building our client's capability so they can succeed long-term

WE WORK COLLABORATIVELY WITH CLIENTS AND OUR TEAMING PARTNERS TO OFFER SOVEREIGN, INNOVATIVE, END-TO-END SOLUTIONS.

Australian-owned, veteran-powered

Partner with clients to deliver enduring solutions and build their capability for long-term success

Deliver reform efficiently whilst navigating changing requirements, reducing resource drain

Outcome-focused, experienced and trusted advisors

For more information, contact:
enquiries@elysiumepl.com.au | 1300 709 250

FLAWLESS PHOTONICS

Flawless Photonics (Flawless) was established to revolutionize fiber optics by manufacturing and scaling a promising material: ZBLAN (Zr, Ba, La, Al, Na fluorides). Discovered in the 1970s, telecom companies in the US, Europe, and Japan envisioned ZBLAN as a successor to silica. However, despite promising results in early-stage testing, the scale-up of ZBLAN void of defects proved impossible. As a result, ZBLAN remained a scientific oddity for decades – until now. Flawless has uncovered a method for manufacturing defect-free ZBLAN at scale to replace silica in key use cases and transform the telecommunications industry.

Using robotics, AI, high-performance computing, advanced purification methods, new glass processing techniques, and microgravity, Flawless has identified an unprecedented path to manufacturing defect-free ZBLAN, which promises to enable superior communications devices and sensors - including those used by the Department of Defense (DoD).

In its quest to dramatically alter the telecommunications industry, Flawless has gained significant support and non-dilutive funding for R&D related to its ZBLAN products, from respected institutions and future customers, such as the U.S. Air Force, NASA, and the Department of Energy. Research is currently focused on applying the game-changing tool to support DoD objectives such as secure communications, infrared countermeasures, and chemical and biological hazard detection. Spearheaded by a team of expert scientists and global business leaders, Flawless is proudly launching a telecommunications revolution.

For more information, visit: www.flawless-photonics.com

FRONTIERSI

FrontierSI is a pioneering collaborative research social enterprise driving innovation and transformative progress in Defence Space Technologies, Advanced Cyber, Robotics, and Artificial Intelligence (AI).

With deep expertise in spatial mapping, infrastructures, positioning, geodesy and analytics, our initiatives span diverse domains, redefining the landscape of space technology through unparalleled industry insight and innovation.

As a trusted partner in the space and spatial sector, our transformative solutions foster growth and resilience in the ever-evolving landscape of space technology and beyond.

For more information, email: contact@frontiersi.com.au

GEODRONES AUSTRALIA

Geodrones Australia is a dedicated Unmanned Aerial Systems (UAS) specialist and an Original Equipment Manufacturer (OEM) based in Australia's capital city, Canberra. Geodrone Australia's mission is to improve combat support systems through the development of innovative solutions, applying autonomy and proven technology in unique ways.

Company capabilities include:

- **Design:** Rapid prototyping and product development capability using modern 3D Printers, Modelling, Simulation and Analysis suite of tools.
- **Manufacture:** Composite manufacturing capability including Prepreg, Wet and Resin Infusion Bag Layup, CNC Router, 3-Axis CNC Mill, Autoclave Composite Oven and Exotic 3D Printing (Multi Material).
- **Electronics:** In-house printed circuit board (PCB) Rapid Design and Prototyping, with growth plans to include circuit board printing, pick-and-place assembly and production.
- **Materials:** Carbon Fibre, Aramid (Kevlar), Glass Fibre, Alumunium, Steel and Brass.
- **Regulatory:** Operating under Australia's Civil Aviation Safety Authority Remote Operators Certificate (ReOC) since 2018 and multiple Remote Pilot License (RePL) holders.
- **Regulatory:** Operating under Australia's Defence Aviation Safety Authority since 2021.

For more information, contact:
admin@geodronesaustralia.com.au

OUR PARTNERS

GREENROOM ROBOTICS

SOFTWARE FOR ROBOTS

At Greenroom, we are building the next generation of robotic software. This means cloud-native robotics. Think 3D, any device, works everywhere robotic software. We bring the latest and greatest in AI, VR and autonomous car technology to the world of maritime robotics allowing us to move seamlessly between simulation and the real world.

ROBOTS FOR GOOD

We only work on Robotics and AI that makes the world a better place. This means we do Search and Rescue. We track and detect whales so ships can avoid them. We work on autonomy to make a ship captain's job safer and easier. We built MarOps to help document and protect the mysteries of the deep.

EXPLORING THE OCEANS

Exploration is in our nature. Our planet is 71% ocean but less than 20% of the ocean has been explored. Under the surface, promising discoveries beckon. Our oceans are the test-bed for the autonomous robotic machines humanity will one day use to explore the ultimate ocean, the cosmos.

For more information, contact: info@greenroomrobotics.com

OUR PARTNERS

GUARDWARE

QUANTUM RESISTANT DATA ENCRYPTION

GuardWare Australia is integrating QuintessenceLabs' "Quantum Key Encryption Capability" into their "Persistent and Transparent" data level encryption, monitoring and control products to deliver Australia's first sovereign "Quantum Resistant Encryption" solution.

For more information, call +61 2 9994 8061 or visit: www.guardware.com.au

HB11 ENERGY

The global energy crisis is real, ongoing and in fact, it's getting worse. It's primary cause is our reliance on non-renewable sources, which in turn produce carbon emissions that have created climate change. But even renewables like wind and solar have limitations in terms of the very large-scale and long term energy storage they require. The solution is Fusion Energy.

HB11 Energy aims to create a new source of clean, safe and reliable energy using laser technology to fuse hydrogen and boron-11. Hydrogen is the most abundant element in the universe, while boron-11 comprises some 80% of all boron found in nature, is readily available and is a stable, non-radioactive isotope.
Unlike other nuclear and fossil-fuel burning plants, our energy generating process does not require large plants with steam turbines and does not generate any dangerous radioactive waste. There's no risk of a reactor meltdown and the energy generated can be directed straight to the grid.

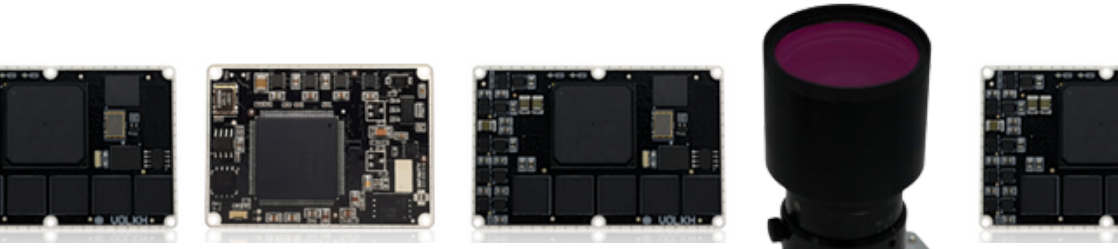
NO RADIOACTIVE WASTE

NO RISK OF REACTOR MELT-DOWN

FUEL IS UNLIMITED AND SAFE

LOW INFRASTRUCTURE COSTS

For more information, visit: hb11.energy

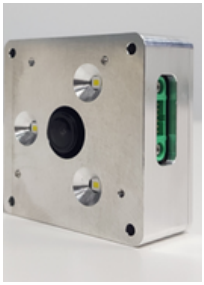


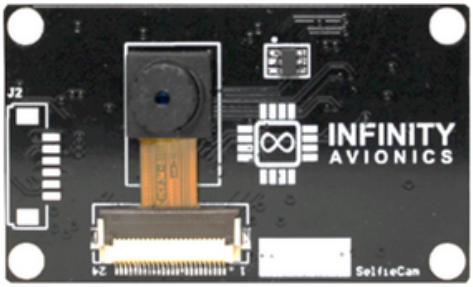
INFINITY AVIONICS

Infinity Avionics is an Australian company providing reliable and rugged intelligent sensors and processor for the global space industry and other high-reliability applications.

Their mission is to be 'Your Eyes in Space', placing our customers at the forefront of their mission through our deep level know-how and specialist facilities.

The team at Infinity Avionics is experienced in electronics design for space applications, project management, systems engineering, defence, and manufacturing, having contributed to the success of several Australian space missions.





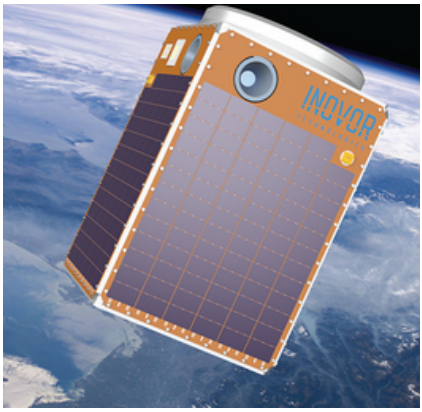
For more information, contact: info@infinityavionics.com

INOVOR TECHNOLOGIES

Inovor Technologies is a leading space and defence technology company based in Adelaide, South Australia. The company provides turnkey spacecraft mission delivery services, as well as specialist engineering services in the electronic warfare domain. Inovor has develop a family of small satellite buses, in both the cubesat (Apogee Bus) and smallsat (Australis Bus) classes.

This technology can be used to build satellites across a range of sizes, and for most mission types, including space domain awareness, Earth imaging, communications, climate science, AgTech, scientific experimentation, etc. Inovor satellites are designed and manufactured in Australia.

All intellectual property (IP), designs and know-how, related to both hardware and software, are Inovor developed and owned. In addition to spacecraft bus development and manufacture for our customers, Inovor is developing two of its own missions; Hyperion is a space-based Space Domain Awareness mission; and Skyris is a “smart” Earth Imaging mission.

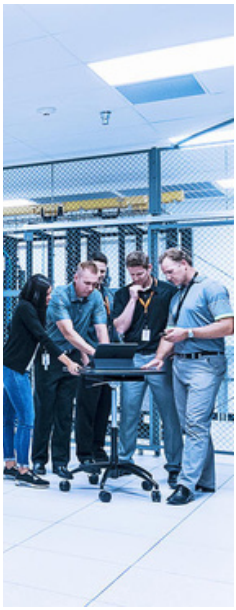


For more information, contact: info@inovor.com

LEIDOS AUSTRALIA

A regional leader in government, science, and technology solutions

With over 25 years of local experience, Leidos is working to solve the world's toughest challenges in government, intelligence, defence, aviation, border protection and health markets. We have more than 2000 local experts, backed by our global experience and network of partners, Leidos Australia delivers solutions that help secure Australia.



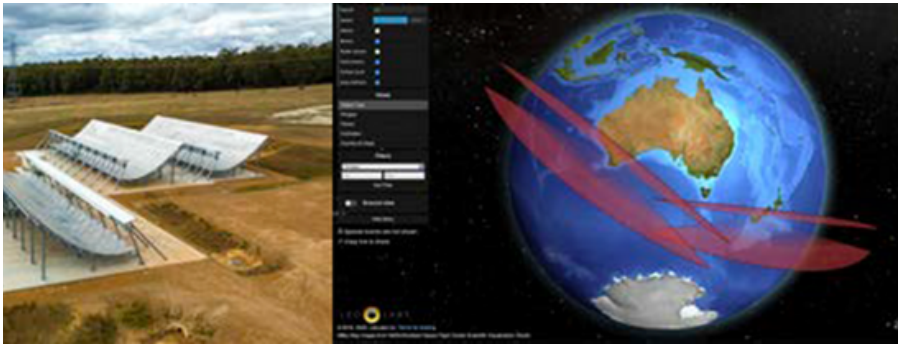
Our technical core capabilities define the areas in which technical excellence is critical, not only for our business, but in the work we do daily to help customers achieve the important missions on the frontlines of their industry.

Our capabilities can be categorized in two discrete ways. First, as market-facing solutions to the most common technology challenges we are asked to solve, namely in Cyber Operations, Digital Modernization, Integrated Systems, Mission Operations, and Mission Software Systems.

Second, all of our work is underpinned by a consistent set of four enabling technologies that are critical in all the work that we do, namely Secure, Rapid Software, Trusted AI/ML, Full-Spectrum Cyber, and Rapid Prototyping and Manufacturing.

For more information, call 1300 LEIDOS or visit www.leidos.com

LEOLABS AUSTRALIA



LeoLabs Australia is a wholly owned subsidiary of LeoLabs Inc (US). Established in late 2020, LeoLabs Australia is a small team of highly professional space operators, engineers, construction managers and technicians servicing LeoLabs customers in Australia, New Zealand and the Asia Pacific region. LeoLabs Australia has recently commissioned the West Australian Space Radar (WASR) on Wilman Noongar country near Collie in WA – the sixth site in LeoLabs global network.

LeoLabs Australia is propelling the dynamic space era with superior information, by providing high quality data products and orbital services to the Australian, New Zealand and Asia Pacific space industry.

Through LeoLabs Vertex™, our vertically integrated space operations stack, we're transforming the way satellite operators, commercial enterprises, and government agencies launch and track missions in low Earth orbit. With unmatched LEO coverage, especially in the Southern Hemisphere, real-time tracking and powerful insights, space companies and governments around the world rely on us to safely execute a wide array of operations in space.

For more information, visit: leolabs.space

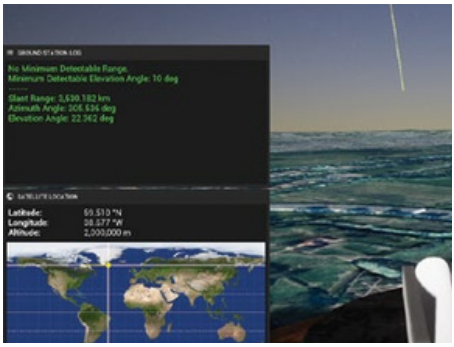
LOCKHEED MARTIN AUSTRALIA

Lockheed Martin Australia is engaged in the development, integration and sustainment of cutting-edge defence technologies. Capabilities span all domains from space to undersea, and bolster the Australian Defence Force's ability to operate in highly contested environments. Front-line capabilities include the F-35 and Aegis combat system, joint all domain battle management, resilient and agile space capabilities, long range strike systems, and advanced training, sustainment and logistical solutions, including rotary aircraft and medium air mobility platforms. Lockheed Martin Australia has a deep commitment to Australian industry, and a vision centred on building long-term stewardship, while ensuring a high-degree of interoperability and connectivity with allies and partners.

Lockheed Martin Australia is partnering with two of Australia's leading universities under the Defence Trailblazer to accelerate Australia's sovereign capabilities in key Defence technologies. Our R&D interests lie in advanced, multi-domain capabilities such as Space, Hypersonics, and applications of AI, and the Defence Trailblazer offers the opportunity to better coordinate a multi–University R&D program for what is intrinsically a whole-of-system R&D challenge.

For more information, visit: www.lockheedmartin.com.au

NOMINAL SYSTEMS



Nominal Systems (formerly Space Services Australia) provides digital engineering solutions to the space and defence sector. By helping our partners explore, analyze and optimize the behavior of complex systems in scenarios that are too expensive or dangerous to replicate in real-life, we deliver mission resilience at an affordable cost.

For more information, contact: info@nominalsys.com

NORTHROP GRUMMAN AUSTRALIA

Northrop Grumman Australia (NGA) is part of the US-based Northrop Grumman Corporation, a leading global aerospace and defence company with 95,000 employees worldwide. Committed to safeguarding Australia's future in an increasingly contested global security environment, its global reach enables NGA to access leading edge technology to deliver superior sovereign capability to the Australian Defence Force, solving their toughest problems in space, aeronautics, defence and cyberspace. Locally led, the company's 850 talented and engaged employees work across 10 sites nationally.

As one of the top three providers of sustainment services to the RAAF, NGA's teams of engineers and technicians work together to ensure the KC-30, C-27J and Special Purpose Aircraft fleets are maintained and ready for service no matter what the situation or challenge. In 2024, the team will also be looking after the sustainment of the new MQ-4C Triton uncrewed reconnaissance aircraft fleet.

NGA is concurrently delivering a range of advanced technologies from seabed to space - contemporary solutions for the Australian Defence Force that cover undersea systems, hypersonics, mission systems as well as capabilities that support Australia's next generation of space programs.

Defining Possible is Northrop Grumman's mantra and this sentiment underpins all aspects of their work as well as their absolute commitment to the careers of their people. It also underpins their partnerships with Australian SMEs, research and academic institutions that accelerate the delivery of pragmatic sovereign solutions for the Commonwealth.

For more information, visit: northropgrumman.com.au

PRAETORIAN AERONAUTICS

Praetorian Aeronautics is developing non-ITAR attritable and expendable unmanned combat air vehicles (Group 3,4, and 5) for Five-Eyes nations, and allied partners. Praetorian's aircraft, currently under development, are designed for a variety of strike missions, as well as permissive and penetrative ISR missions.

Praetorian's "Venator", a light tactical unmanned combat air vehicle, is optimized for close air support (CAS) and both offensive and defensive operations. The Venator is a cost effective, scalable system to provide combat mass for the new paradigm of drone warfare. The Venator has been designed to be interoperable with current command and control infrastructure and to be deployable from semi-improved runway surfaces. The vehicle is capable of short take-off and landing with a full weapons payload and is capable of medium to long range operations.

Praetorian is developing the "Praetorian Shield" system, an AI-enabled command and control system designed to neutralize low altitude standoff weapons like drones, loitering munitions, and cruise missiles, forming a protective screen around assets and designated operational areas. The "Praetorian Shield" system allows for the orchestration of a drone swarm to accomplish both offensive and defensive missions, including air-intercept of kamikaze drones and loitering munitions.

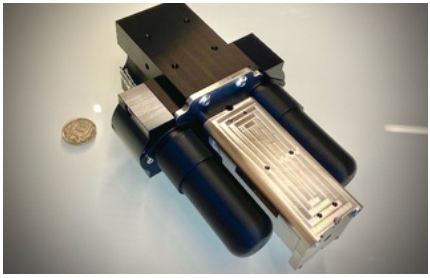
Praetorian Aeronautics is based in Australia and utilises an Australian sovereign supply chain to deliver vehicles with a low-logistical footprint, simplified training systems and custom support methodologies, enabling scalable mass for our partners. Praetorian has an extensive R&D partnership network that leverages Australian technology to deliver leading edge capabilities to Australian and allied war fighters.

For more information, visit: www.praetorian-aeronautics.com

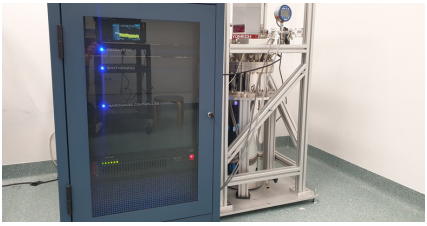
OUR PARTNERS

QUANTX LABS

QuantX Labs' mission is to be a globally leading provider of precision technologies that enhance communication, navigation, computing and defence systems. Our production and test facility, based in Adelaide, is providing a unique industrial capability to support Australian Defence and Space programs.



The Quantx Labs facility includes a significant test & evaluation capability purposely built to support precision timing and alternate PNT defence systems.



For more information, call +614 6696 2562 or contact: info@quantxlabs.com

QuantX Labs' current focus is on three precision technologies:

- **Sapphire Oscillators** - the flagship product – CRYOCLOCK - is the world's most precise commercial clock – and is transitioning to deployment in the ADF's JORN Defence Radar.
- **Optical Atomic Clocks** – these ground-breaking next-generation atomic clocks will be deployed on land and in space to deliver alternate, sovereign access to precision timing. Secure timing underpins all distributed networks and represents a vulnerability for operation in contested environments.
- **Quantum magnetometers** - developed to sense extremely small changes in the Earth's magnetic field. Effectively our sensors make the ocean and land transparent through the high sensitivity of quantum sensing hardware and software technologies.

RAYTHEON AUSTRALIA

For more information, call 1800 RAYTHEON or visit www.raytheonaustralia.com.au

SAAB AUSTRALIA

Saab Australia is a defence, security and technology provider for customers across the globe.

Saab Australia's mission is to keep people and society safe. They achieve this through our unparalelled solutions, driven by our leading research and development in collaboration with industry and academia.

Saab are innovators by nature, and exceed when there's a new challenge - continually diversifying our offering based on decades of proven success in command and control systems.

Saab Australia is dedicated to assisting Australian industry in developing capabilities that will strengthen our nation's defence. Saab believes that Australian industry Capability (AIC) is about more than just contracting with Australian firms; it is also about developing a long-term Australian sovereign industrial base.

Saab Australia's first project, starting in 1988, was based on technology and knowledge transfer for the Australian Combat Management System for the Anzac Class frigates. Saab has since supported the Commonwealth's AIC strategy through a variety of programmes in the Land, Air, Cyber, Civil, Maritime Surface, and Underwater domains.

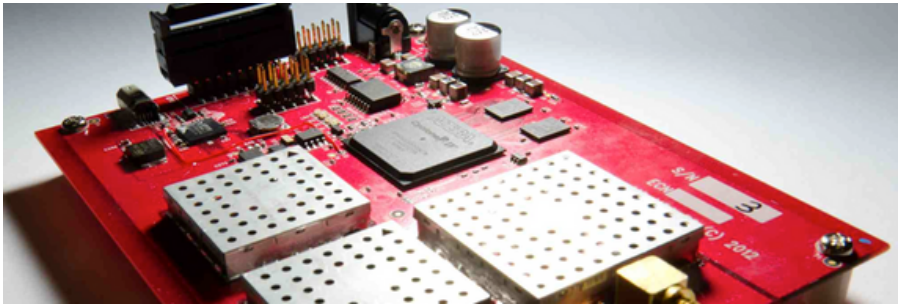
Saab Australia has over 650 approved suppliers, with over half of them being Australian.

For more information, visit: www.saab.com.au

SEASKIP SYSTEMS

Seaskip is a leading developer of Global Navigation Satellite Systems (GNSS) and associated applications and capabilities. In collaboration with UNSW's Australian Centre for Space Engineering Research (ACSER), Seaskip has over 7 years' experience working in Space 2.0 LEO/cubesat development. Our areas of space expertise include GNC and Ionospheric measurement, as well as terrestrial (air, land and sea) systems.

We have a long history in the development of Australian "space-ready" GNSS receivers with significant space heritage on both civilian and military launch missions over the last two decades.
Seaskip has a strong engagement with Australian Defence, working on capabilities including GPS resilience for denied environments and anti-submarine warfare (ASW).



For more information, visit: www.seaskip.com

SILANNA GROUP

Silanna Group uses unique technologies and expertise in advanced materials to disrupt traditional markets with solutions that help customers reduce environmental impact and improve health and safety. Silanna group develops world-first, best-in-class technology and launch companies to deliver innovations worldwide

From more efficient semiconductors that reduce global energy demand, to advanced ultraviolet (UV) technologies that revolutionise hygiene management, Silanna's mission is to invent and develop disruptive, best-in-class technologies that will benefit the planet and the people on it. To achieve this, they place great emphasis on supporting, nurturing and empowering our people, allowing them to achieve their true potential in an inclusive, diverse and progressive working environment. At the same time Silanna recognises the need to support the local communities in which they operate, and to enforce strong corporate governance and oversight across the business.

Silanna has established product leadership in UV light emitters and detectors, power switches and RF integrated circuits.

From more efficient semiconductors that reduce global energy demand, to advanced ultraviolet (UV) technologies that revolutionise hygiene management, Silanna's mission is to invent and develop disruptive, best-in-class technologies that will benefit the planet and the people on it.

For more information, call +61 2 9763 4111 or visit: www.silanna.com

SILENTIUM DEFENCE

Silentium Defence is a global leader in passive radar systems for tactical and strategic surveillance. A disruptive technology, designed and developed in Australia, Silentium's MAVERICK passive radars enable customers to 'see without being seen' across sea, air, land, and space. Fast, safe, and cost effective to deploy, Silentium's radars have no electromagnetic signature, are covert in operation, easily adapt to mission requirements and provide an undeniable advantage in any domain. Used for Counter UAS, Force Protection, Ground Based Air and Missile Defence, Littoral Surveillance, protection in port, and Surveillance of Space, Silentium's MAVERICK passive radars deliver situational awareness, anytime, anywhere, to protect what matters.

For more information, visit: www.silentiumdefence.com.au

SILEX SYSTEMS

Silex Systems Limited (Silex or the Company) is a technology commercialisation company whose primary asset is the SILEX laser enrichment technology, originally developed at the Company's technology facility in Sydney, Australia.

The Company mission is to commercialise the unique SILEX laser enrichment technology for application to:

Uranium production & enrichment (nuclear power)

Medical isotope enrichment (new cancer therapies)

Silicon enrichment (silicon quantum computing)

THE QUANTUM SILICON PRODUCTION PROJECT

Silex's project objective is to establish the first Quantum Silicon Production Plant and develop the skills and capability to manufacture commercial Quantum Silicon products, produced from Zero-Spin halo-silane, in multiple product forms - at commercial scale.

Silex intends to produce two different forms of Quantum Silicon, which are compatible with silicon quantum chip fabrication technologies used by manufacturers, namely:

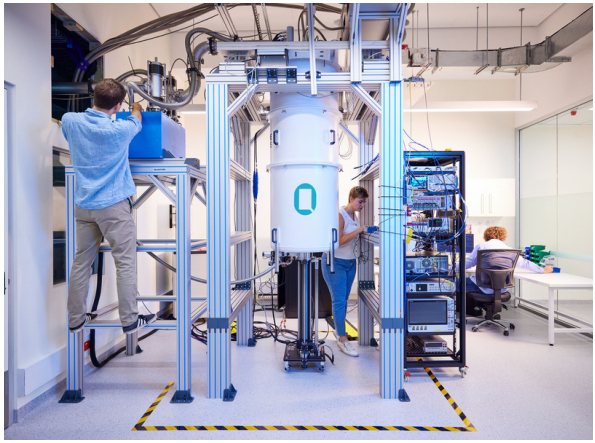
- **Quantum Silane gas** - used in chemical vapour deposition (CVD) based processes utilised for quantum chip fabrication
- **Quantum Silicon solid** - used in atomic and molecular beam epitaxy (ABE / MBE) based processes utilised for quantum chip fabrication

For more information, call +61 2 9704 8888 or contact enquiries@silex.com.au

SILICON QUANTUM COMPUTING

Quantum computing won't just change how we use, process and understand information. It will also allow us to create faster, more efficient computers that will quickly become the world's most powerful artificial intelligence machines.

Silicon Quantum Computing's vision is to make this happen for the betterment of humankind. By creating technology at the cutting edge of science, and by using it in ways that are life enhancing, human-centred and world changing.



For more information, contact: info@sqc.com.au

OUR PARTNERS

SKYKRAFT

Skykraft is a transport infrastructure company, delivering space-enabled services. From 2025 our comprehensive ATM system will be operational, with global coverage.

SKYKRAFT'S GLOBAL ATM SERVICES, ENABLED BY SPACE

- **Comprehensive ATM:** in combining ADS-B and VHF communications services, from space, Skykraft offers air traffic controllers and pilots a genuinely comprehensive ATM service
- **Global coverage:** Our ATM System seamlessly covers the globe from ground level up, reducing the need for extensive terrestrial infrastructure or a change to air traffic controller or aircraft equipment
- **Dedicated ATM System:** Designed and built solely for ATM services, our space-enabled system does not have to compromise performance in sharing with other services
- **Resilient through redundancy:** Unprecedented performance levels and robustness are driven through layers of redundancy throughout
- **Unmatched availability:** With >99.9997% availability, our ATM system keeps aircraft covered in the most challenging environments

FACILITATING THE AIR TRAFFIC MANAGEMENT FOR THE FUTURE

- **Capacity and growth:** In enhancing a space-enabled surveillance service with VHF communications, we support more efficient airspace management, including trajectory-based operations and 5NM oceanic separation
- **Sustainability:** We assist the aviation industry to meet their net zero targets, by enabling more efficient routing that can reduce fuel burn and minimize contrails
- **Robust surveillance:** A minimum of 4 satellites in view of an aircraft at any time enables independent measurement and verification of aircraft position, even with total GNSS failure
- **Evergreen System:** Our space-enabled system is scalable to grow with demand. Continuous replenishment and replacement assure performance and an ability to deliver new ATM services

For more information, contact: skykraft@skykraft.com.au

SOUTHERN LAUNCH

Southern Launch expands space exploration from the Southern Hemisphere with end-to-end launch and return services for space missions.

Southern Launch owns and operates two spaceports currently approved by the Australian Space Agency for launches and returns from space. Their team of leading engineers, project managers, specialists, and regulation experts work with rocket manufacturers and payload customers to manage all aspects of the space launch.

Whalers Way Orbital Launch Complex

The Whalers Way Orbital Launch Complex is one of the only sites in the world that can provide high-cadence launches to polar and sun-synchronous orbits. Favourable launch conditions at the Whalers Way Orbital Launch Complex offers greater launch window availability and launch schedule flexibility.

Kooniba Test Range

The Koonibba Test Range is Australia's largest civilian overland testing facility and specialises in suborbital launches and returns from space. The size and flexibility of the Koonibba Test Range allows testing of vehicles at hypersonic speeds. Vehicles and payloads can be recovered to do further testing and system validation.

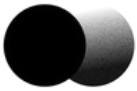
For more information, call +61 4 7756 0298 or visit: www.southernlaunch.space

SPACE MACHINES COMPANY

The next major endeavour for humankind is to build the transportation and servicing network needed to power our future in-space. In future, all satellites will be serviced in orbit. Space Machines Company provides affordable and accessible transportation and servicing.

RESEARCH AND SCIENCE

From a nanosatellite constellation for detecting bushfires on Earth to delivering mapping satellites to the Moon.



COMMERCIAL

Constellation deployments in LEO, Transfers to GEO for Telecommunications, Life Extension, Debris Management and more.

GOVERNMENT

Supporting Dedicated transportation and servicing requirements for strategic assets and sovereign capability missions.

LAUNCH SERVICE PROVIDERS

Providing OEM transport solutions to help Launchers deliver customer missions whilst providing a cost effective and robust last mile transport capability.

For more information, contact: sales@spacemachines.co

SRC AUS

ELECTRONIC WARFARE INTELLIGENCE PRODUCTION & REPROGRAMMING

SRC Aus provides innovative products and seasoned analysts to solve Australia's toughest EW challenges – from mission planning support, EW integrated reprogramming, simulation, test and evaluation, to EW training.

Along with our US parent company, we are applying over 60 years of experience to deliver solutions to the Australian region. Together, SRC, Inc. and SRC Aus employ U.S. and Australian EW experts developing next-generation solutions for the Australian Defence Force and its allies – redefining possible® for the war fighter.

SRC Aus supports EW requirements for the Australian Joint Strike Fighter (JSF) Program. We provide software development and engineering analysis critical to the successful operation of the JSF and other advanced platforms in Australia. Under this effort, SRC Aus employs Australian engineers in Adelaide, Brisbane and Canberra, supported by experts from SRC Inc in the USA.

The future of EW is focused on handling the growing problem of a complex, contested and congested electromagnetic spectrum. Applied machine learning (M/L) is central to solving the EW problems of today and into the future. As a result, partnering w/ leading academic researchers on M/L is pivotal for the future of SRC Aus and our capability deliveries to the ADF. SRC Aus is now partnering with Universities of Adelaide and New South Wales to enhance our technology development, projects and deliveries for Allied warfighting forces by incorporating effective protective systems developed under the Trailblazer rapid prototyping program.

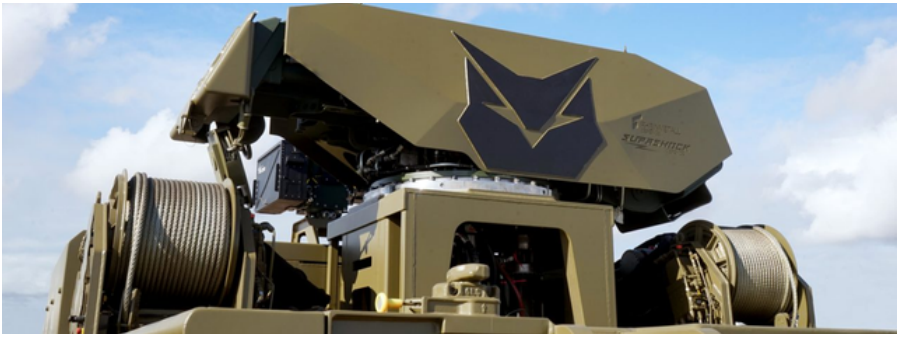
For more information, visit: www.srcaus.com

SUPASHOCK

Supashock is a world-class producer of advanced mobility, motion and autonomous systems that control, monitor and improve the efficiency and capability of defence, commercial, automotive, motorsport and other transport vehicles.

The rapid growth, awards, patented technology and impacts on local economy have seen Supashock grow to become a highly recognised success story at home and abroad.

Following a successful 25-year motorsport engineering career, Supashock's CEO Oscar Fiorinotto has led the Supashock team to diversify in product, capability and industry since he founded the business in 2005.



For more information, call +61 8 8333 1123 or contact: info@supashock.com

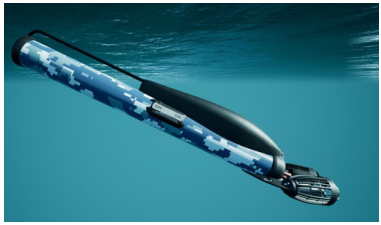
THALES AUSTRALIA

The people we all rely on to make life better and to keep us safer – they rely on Thales Australia. We're a 3800 strong team of experts located across 35 sites in Australia. Our experience is unparalleled across every major industry we serve.

Combining a unique diversity of expertise, talents and cultures, our architects design and deliver extraordinary high technology solutions. Solutions that make tomorrow possible, today.
At a time when progress offers huge opportunities – and faces serious challenges, our customers trust that we have the skills, and experience to turn leading-edge technologies into systems and solutions that are both imaginative and resilient, human-centred and sustainable.

From the bottom of the oceans to the depths of space and cyberspace, we help our customers think smarter and act faster - mastering ever greater complexity and every decisive moment along the way.

At Thales Australia innovation isn't just something we do, it's who we are; always striving to develop tomorrow's technology today. With significant investment in Research and Development, our people are sharing ideas on how to conquer real-world challenges across a range of markets. We partner with a wide range of research institutions and academia in areas that are crucial to developing tomorrow's technology, today. Research, design and development of advanced technologies underpins Thales Australia's product and service offerings to our customers, reflecting the rapid pace of technological change – our reach back into our global network of world leading technology experts is at the core of our sovereign world leading capabilities.



For more information, visit: www.thalesgroup.com.au

OUR PARTNERS

VIDEN LABS

At Viden Labs, we believe that knowledge is power. Our name, "Viden," derived from the Danish word for "knowledge," reflects our core philosophy of harnessing the power of information and insights to drive progress. With our deep understanding of emerging technologies and expertise across multiple domains, we empower our clients to embrace the future securely.

Viden is an Australian-based and sovereign owned, professional services and cyber security company. Headquartered in Canberra, but with team members located across Brisbane and Melbourne, Viden works alongside its government clients to deliver or support some of Australia's most critical and cutting-edge capabilities, projects and programs. We leverage cutting-edge technologies and a team of highly skilled professionals to empower organizations across various industries to harness the power of data and gain actionable insights for strategic decision-making. Our commitment to innovation, quality, and client satisfaction sets us apart in the market.

As a veteran centric company, our team of 100% security cleared personnel, have extensive operational experience across the land, air, maritime, space and cyber domains. Currently, Viden operates two distinct business units:

- Viden Consulting (Professional Project Delivery Services); and
- Viden Labs (Information Technology Assurance and Evaluation Services)

For more information, visit: www.viden.com

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