



Technology Showcase

Pearl Harbor Naval Shipyard and Intermediate Maintenance Facility

Table of Contents:

Advanced/Additive Manufacturing

Atlas Copco Tools & Assembly	4
BrandTech by BrandSafway Solutions, LLC	5
Canopy Aerospace & Defense	6
CN-Seamless, Inc.	7
DMG MORI Federal Services	8
Siemens Government Technologies	9
Relativity Space	10
VRC Metal Systems	11

Business IT and Analytics

Google	12
IBM Consulting	13

CBM+/Predictive Maintenance

ALL-TEST Pro	14
Amazon Web Services	15
Avathon Government, Inc.	16
Edlore, Inc.	17

Coating and Corrosion Prevention

BlastOne	18
G.C. Laser Systems, Inc.	19
Shape Waterblast Group	20
Solarcore	21
Valkyrie Enterprises, LLC	22

Energy, Environmental, Health, and Safety

American Ceramic Technology, Inc.	23
Amphenol TPC Wire & Cable	24
Impacto Protective Products	25
StoneAge, Inc.	26

Enhanced Inspection

4D Technology, an Onto Innovation subsidiary 27
Creaform 28
FTL Labs Corp 29
Greensea IQ 30
Hexagon 31
Hexagon Manufacturing Intelligence 32
InfoTech NorthStar, LLC 33
Metronor 34
TRI Austin 35
XaaS Labs, Inc. 36

Reliability Improvement (Hardware)

HYTORC 37

Workforce Development/Visualization

BG Workforce Solutions 38
Boston Engineering Corporation 39
EFCO USA, Inc. 40
Humulo Engineering, LLC 41
Moth+Flame 42

Atlas Copco Tools & Assembly

Focus Area: Advanced/Additive Manufacturing

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Atlas Copco

Atlas Copco Tools & Assembly Systems (ACTA) is a global leader in industrial assembly solutions, specializing in smart, connected tools and engineered systems that drive productivity, quality, and sustainability. Our portfolio includes advanced tightening tools, torque and angle analyzers, error-proofing systems, machine vision, and software platforms that support Industry 4.0 transformation.

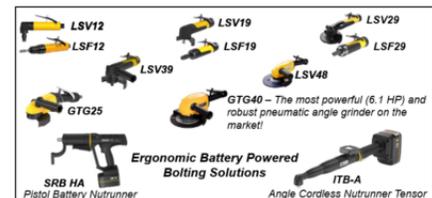
At our North American Applications Center (APC) in Auburn Hills, Michigan, we design and deliver custom-engineered solutions tailored to the unique needs of defense, aerospace, automotive, and heavy manufacturing sectors. Our high-performance teams collaborate with customers to develop ergonomic, data-driven systems that improve operator safety, reduce rework, and ensure traceable quality.

ACTA serves a wide range of government and defense customers, including U.S. Navy shipyards, depots, and prime contractors. We are ISO 9001, 14001, 45001, and 17025 certified, and our PF8000 controller platform supports advanced analytics, remote diagnostics, and predictive maintenance.

Integrated Assembly Systems for Defense Sustainment

Problem Statement:

- Manual assembly processes lack traceability and repeatability
- High rework rates due to inconsistent torque application
- Limited visibility into tool performance and joint quality
- Ergonomic risks in shipyard maintenance environments
- Need for data-driven maintenance and predictive diagnostics



Technology Solution Statement:

- ACTA's PF8000 platform delivers smart, connected tightening with full traceability
- ACTA 4000 analyzers provide torque/angle validation and SPC analytics
- Custom-engineered solutions from APC improve ergonomics and reduce operator fatigue
- Integrated software enables real-time monitoring, diagnostics, and predictive maintenance

Benefits Statement:

- 30% reduction in rework through validated tightening processes
- 25% improvement in operator efficiency via ergonomic tooling
- 100% traceability of torque and angle data for QA audits
- Supports ISO 17025 calibration and Navy maintenance standards
- Enables predictive maintenance and CBM+ compliance
- Reduces downtime and improves fleet readiness

BrandTech by BrandSafway Solutions, LLC

Focus Area: Advanced/Additive Manufacturing



Contact

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BrandTech® by BrandSafway Solutions, LLC will demonstrate proprietary, computer-driven, software-enabled, precision stud welding, regardless of machine, environment or operator (welder).

With local branches ready to support across the U.S., Canada, and Europe, BrandTech® is ready for deployment and use at any shipyard where Ship Maintenance and Construction needs occur including Pearl Harbor, HI, San Diego, CA, Bremerton, WA, Jacksonville, FL, Norfolk, VA, or Kittery, ME.

BrandTech Computerized, software-driven, stud welding

Problem Statement:

BrandTech® Precision Welding produces stronger welds, with incredibly low rejection rates, in all conditions, and no human skill dependency.



- Welding of exotic materials without Pre-Heat
- Less than (<) 0.5% weld rejections
- Less than (<) 0.6% Hexavalent Chromium Exposure
- Not human-skill dependent
- Developed, designed, sourced, and manufactured in the USA
- UL 2900-2-2 Certified for Cybersecurity of Industrial Control Systems (ICS) by the National Security Agency (NSA)

Technology Solution Statement:

BrandTech® meets rigorous Quality and Reliability standards to match the strenuous demands of a Shipyard Workplace environment.

- State of the art components as per IEC, ROHS, UL, CE, FCC, and RU
- UL and CSA Listing – File No.: E501577
- Large inventory of equipment and consumables

Benefits Statement:

BrandTech® produces significant cost reductions and time savings with no additional training requirements – minimal time to train operators (welders) for use.

- Fast installation and Single-Side Access: welders do not need to access the reverse side of the material
- No need for extra hardware: eliminates need for nuts, bolts, washers, and backing plates
- Precise welds reduce material waste and rework (<0.5% weld rejection rate)
- Less Downtime: Faster processes mean quicker turnaround times for ship sections

Canopy Aerospace & Defense

Focus Area: Advanced/Additive Manufacturing



Contact

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At Canopy Aerospace & Defense, we engineer and deliver advanced materials and components that enable maritime and naval platforms to operate quieter, cooler, and with reduced signature across contested environments. Through our vertically integrated platform, we support the full lifecycle of surface and undersea systems, from design and qualification through scalable production, sustainment, and reusability.

We operate as a seamless extension of our customers' engineering and sustainment teams, integrating materials science, manufacturing, and maritime domain expertise to solve the most demanding naval challenges. Our mission is to own the full value chain from concept to fleet sustainment, delivering durable, mission-critical solutions for operations in harsh maritime, littoral, and undersea environments.

Advanced Maritime Signature, Acoustic, and Thermal Management Materials

Problem Statement:

Modern naval platforms face increasing operational pressure to reduce acoustic, thermal, electromagnetic, and structural signatures while operating in harsher environments and at higher tempos. Legacy materials and fragmented supply chains struggle to meet evolving requirements for sonar transparency, vibration isolation, thermal control, corrosion resistance, and long-term sustainment — spanning deep-water undersea systems, surface combatants, and distributed maritime sensor architectures.

Technology Solution Statement:

Canopy Aerospace & Defense delivers high-performance maritime materials and components engineered to manage thermal loads, attenuate signatures, and enhance survivability across naval platforms while improving structural and hydrodynamic performance.

Benefits Statement:

Canopy Aerospace & Defense focuses on maritime signature and performance optimization, addressing critical system-level challenges including:

- Acoustic transparency and sonar performance for undersea and surface platforms
- Vibration damping and structural noise reduction to minimize detectability
- Thermal management for sensitive maritime electronics and sensors
- Electromagnetic and radar signature control for naval survivability and antenna isolation
- Long-life materials engineered for corrosion resistance and sustainment

By integrating design, materials, manufacturing, and sustainment under one platform, Canopy enables naval customers to deploy more survivable, mission-ready vessels and systems — 6 optimized not just for initial performance, but for decades of operational use.

CN – Seamless

Focus Area: Advanced/Additive Manufacturing

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CN-Seamless is a North Carolina-founded technology company revolutionizing field fabrication and maintenance through compact, deployable automation systems. Our flagship product, the Mach 1, is a portable oxy-fuel and plasma cutting machine designed for use in austere environments by welders, maintainers, and fabricators. It enables precise metal cutting on flat plate, structural steel, and existing equipment—eliminating the need for stationary CNC infrastructure.

Deployable Automation System

Problem Statement:

The rapid maintenance and repair of large transportation assets, facilities, and operational support equipment is critical for mission readiness. Unlike commercial manufacturing, every repair within defense contexts is unique, reducing the benefit of automation compared to the time spent programming automated systems. Consequently, most maintenance still relies on the skill and availability of the maintainer. Unpredictable issues including battle damage, terrain hazards, mishaps, corrosion, or specialized mission demands force maintainers to spend time developing extensive maintenance projects, rely on depot repairs, or consider disposal.



Technology Solution Statement:

The Mach 1 is a portable, semi-automated fabrication platform that delivers powerful oxy-fuel and plasma cutting capabilities to any worksite, empowering maintainers, fabricators, and welders to perform precise cuts in metal with speed and consistency. Designed for rugged environments and rapid field deployment, the Mach 1 simplifies complex cutting tasks by automating manual processes typically reserved for heavy CNC equipment.

Currently under development, new end effectors for plasma blasting, welding, bevel cutting, 3D printing, and more will make the Mach 1 the ultimate automation system built for the field.

Benefits Statement:

The value of such a low-cost automation system that deploys directly to equipment and facilities being maintained is extremely high. The ability for any team in a base to perform rapid maintenance, fabrication, or repair with robotic precision specific to the tooling needed will drastically improve the decentralization of logistically complicated procedures. Gaining the ability to perform depot-level repairs on any base by bringing the Mach 1 to the equipment will result in millions of dollars saved in transportation costs alone. The portable nature of the Mach 1 means teams can become comfortable with the operation on base and have the ability to perform the same automated repairs while deployed. Furthermore, the end-effectors to be supported by the Mach 1 extend far beyond just maintenance use. Tactical breaching and rapid base construction and reconstruction are among the many additional potential benefits to having such a portable and easy to set up system.

DMG MORI Federal Services

The DMG MORI Group is a leading innovator in the machine tool industry with an expansive portfolio of manufacturing equipment. We are focused on customer support, quality, service, and advanced technology. Our product line includes 5-Axis Milling machines, 4 and 5-Axis Horizontal Machining Centers, Additive machines, Hybrid machines, Vertical Machining Centers, CNC Turning machines, CNC Boring mills, and a variety of Palletized systems and Grinding machines. With over 12,000 team members world-wide, our group companies specialize in providing unmatched applications support, service and training to large OEMs, Tier-one contractors, and the US government itself. DMG MORI Federal Services (DMFS) works exclusively with US federal and State government agencies to support government initiatives while focusing on federal acquisition regulations and cybersecurity compliance. DMFS is also (ITAR) Registered, (CMMC) 2.0 complaint ready, and (NIST) compliant. We currently have active projects with the Army, Navy, Air Force, Department of Energy, and NASA.

Focus Area:
Advanced/Additive
Manufacturing

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DMG MORI Advanced Manufacturing and Additive Manufacturing Solutions



DMG MORI Federal Services
 DMG MORI Advanced Manufacturing and Additive Manufacturing
 Solutions

NCMS Technology Showcase
 Pearl Harbor Naval Shipyard

<p>PROBLEM STATEMENT</p> <ul style="list-style-type: none"> • How to reduce Machining Time • How to reduce scrapped parts • How to increase accuracy of machined parts • How to reduce the number of machines needed • How to reduce the number of complex and expensive fixtures needed to machine components • How to reduce lead time to repair critical components • How to train machine operators 	<p>BENEFITS</p> <ul style="list-style-type: none"> • Reduces scrap parts • Reduces the number of machines needed to complete a part or repair- Smaller footprint • Reduce cycle/ production time • Reduction of repair time • Higher quality and increased precision • Less tooling and fixtures required • Less Machine Operators needed • Reduced energy consumption and CO2 • Increased profits
<p>TECHNOLOGY SOLUTION</p> <ul style="list-style-type: none"> • Additive manufacturing enables the creation of parts and products with complex features previously not possible • Use of both additive and subtractive technologies in one machine (DMG MORI Hybrid DED Machines) combine operations and reduces the need for complex fixtures • 5-Axis Milling and turning in same machine reduces the number of machines, fixtures, set ups, scrapped parts, leading to reduced time needed to make the part complete • DMG MORI Academy offers expert training in operation and repair of our machine tools 	<p>GRAPHIC</p> 

Siemens Government Technologies

Focus Area: Advanced/Additive Manufacturing



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Combining the real and the digital worlds makes it possible to seamlessly integrate the entire value chain from design to realization, while optimizing with a continuous flow of data. A true Digital Enterprise is able to harness the unlimited power of data by gaining valuable insights to make fast and confident decisions – and to create best-in-class products through efficient production.

Digital Simulation of Production

Problem Statement:

Aging infrastructure, inefficient layout and old equipment are contributing to longer maintenance times, increased costs and reduced fleet readiness.



Technology Solution Statement:

Provide a digital model to identify equipment and process solutions that increase throughput through experimentation, and further set the state for equipment procurements and facility designs that enable improved operations.

Benefits Statement:

Digital model of the maintenance process: maximizes allocation of resources, provides framework for data driven optimization, maximizes workforce allocation, targets faster ROI for project investments.

Relativity Space

Focus Area: Advanced/Additive Manufacturing

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Relativity

Relativity Space is building reusable rockets that make access to space more reliable and routine—empowering science, exploration, and innovation beyond our planet. Energized with new leadership and a bold mission, we're launching forward with purpose and precision. Our core innovation doesn't stop at rockets. From cutting-edge research labs and interplanetary exploration to next-generation manufacturing, we're building platforms that push boundaries far beyond launch. We are revolutionizing how complex hardware is manufactured through our AI-enabled autonomous robotic platform, Stargate. By integrating large-scale additive manufacturing, advanced materials, robotics, and data-driven process control into our technology stack, we're building a scalable and resilient industrial base for the future.

Sustainment Through Autonomous Robotic Repair (STARR)

Problem Statement:

The U.S. manufacturing industry is emerging from a decades-long decline and demands leap ahead technology solutions for the future. Relativity Space is leading the American reindustrialization effort by developing and deploying manufacturing technologies that replace traditional manufacturing supply chains while meeting stringent reliability standards. Our initial focus is addressing the urgent need for large-scale metal castings in the defense sectors.



Technology Solution Statement:

STARR seeks to expand additive manufacturing and casting repair processes beyond traditional weld cells by combining autonomous perception, cooperative robotics, path planning, and fleet modularity.

Through the creation of semi-autonomous repair robots, STARR is addressing casting capacity issues by reducing supply chain uncertainty and improving technician safety by decreasing human operations in mission critical casting repairs. The development of these systems will reduce operational costs for the Defense Industrial Base and increase fleet readiness.

Benefits Statement:

- Resilient Supply Chains: Flexible production that adapts quickly to industry needs.
- Unconstrained Build Volume: Maximum configurability for manufacturing massive component sizes.
- Full-Stack Capability: Combining automation, simulation, inspection, and more.
- Speed & Efficiency: Leveraging data science, robotics, and proprietary deposition technology to slash lead times.
- Mission-Critical Hardware: Reliability for high-performance applications and extreme environments.

VRC Metal Systems

Focus Area: Advanced/Additive Manufacturing

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VRC Metal Systems, LLC is a company founded in 2013 based on research performed at South Dakota School of Mines and Technology in collaboration with the US Army Research Laboratory (ARL) to design a hand-operable high-pressure cold spray capability. The goal of advancing this technology was to allow for simple but high-quality repairs of DOD assets either in a depot or field environment. Since its founding, VRC Metal Systems has continued to develop this technology, creating more highly portable systems as well as producing robust systems for continuous commercial operation. VRC has successfully commercialized a line of high-pressure cold spray capabilities that has successfully enabled new production and repair activities in the DoD, the energy sector, the heavy industrial sector, and in research and academia. VRC is also working with ARL and other DOD entities to advance the state of the art in High Deposition Rate Additive Manufacturing (HD-RAM) processes like cold spray additive manufacturing, wire directed energy deposition, friction stir additive manufacturing, as well as developing secondary processing techniques for these processes like localized thermal processing, secondary deformation processing, or even machining. VRC is a full service cold spray provider, core capabilities include: Cold Spray Process Development; Equipment Manufacturing, Integration & Leasing; On-Site Repair and Modification; Consumables; Training and Customer Support.

Cold Spray Solutions for Corrosion and Wear

Problem Statement:

Corrosion and Wear on High Dollar, Long Lead Time Parts and Components



Technology Solution Statement:

Cold spray technology is an ideal solution for addressing corrosion and wear in materials due to its unique solid-state deposition process, which offers several advantages over traditional methods. For corrosion, cold spray creates a dense coating with minimal porosity acting as an effective barrier against corrosive environments, it also reduces oxidation and various material options to choose from. For wear, cold spray's dense coatings contribute to superior wear resistance, preserved material properties and compressive residual stress which can enhance fatigue life and improve resistance to wear.

Benefits Statement:

Repair and prevention of corrosion, reduces and repairs wear. Reduces down time and associated costs.

Google Public Sector

Google Public Sector brings the magic of Google to the mission of government and education. With powerful technologies such as artificial intelligence (AI), advanced analytics, and security offerings, decision makers can streamline processes and improve citizen services delivered by public sector organizations across all domains.

Focus Area: Business IT and Analytics

Contact

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Automating Shipyard Workflows with AI



Google
GenAI and the Leap Ahead for Navy Shipyards

NCMS Technology Showcase
Pearl Harbor Naval Shipyard

<p>PROBLEM STATEMENT</p> <p>The Navy's shipyards face modernization challenges due to the underutilization of modern digital technologies. The causes:</p> <ul style="list-style-type: none"><i>Inefficient scheduling:</i> delays; poor resource allocation<i>Outdated processes:</i> manual systems slow operations<i>Limited collaboration:</i> Poor data sharing<i>Reduced predictability:</i> Inability to forecast <p>This leads to diminished competitiveness and readiness.</p>	<p>BENEFITS</p> <p>GenAI can revolutionize Navy shipyards, propelling them into a new era of digital modernization. By optimizing complex processes, predicting maintenance needs before failures occur, and facilitating data-driven decision-making, GenAI can unlock significant efficiency gains. This translates to reduced downtime for ships, optimized resource allocation, and ultimately, a more capable and ready fleet. Furthermore, GenAI can foster a culture of innovation by automating routine tasks and empowering shipyard personnel to focus on developing cutting-edge solutions.</p>
<p>TECHNOLOGY SOLUTION</p> <p>Google configured a GenAI solution demo grounded in Navy technical manuals to show how shipyard workers can find information faster and work more efficiently by:</p> <ul style="list-style-type: none"><i>Quickly find maintenance requirements</i><i>Understanding and executing workflows faster</i><i>Finding and referencing graphics and diagrams</i><i>Training and upskilling workers in an interactive manner</i>	<p>GRAPHIC</p> 

IBM Consulting

Achieving full mission readiness is becoming increasingly complex and requires dynamic defense technology solutions. New threats and domains for warfare continually emerge, including cyber and space along with disruptive technologies, like AI and Quantum. Dealing with these threats necessitates using data as a critical enabler for information driven operations.

Focus Area: Business IT and Analytics

Contact

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As defense departments navigate increasingly sophisticated threat landscapes, they are eyeing a shift to a DevSecOps mindset to ensure they can securely innovate. At a recent roundtable, produced by Government Executive Media Group and hosted by IBM and Red Hat®, DoD experts provided insights on the critical role that DevSecOps plays to support the mission. These insights are captured in the Top Takeaways: 4 Ways the Defense Department Can Leverage DevSecOps and a report from the IBM Center for the Business of Government on Achieving Mission Outcomes through DevSecOps.



IBM can help you transition to an advanced hybrid cloud-based environment built on technology that is designed for your mission, including AI, SAP S/4HANA and “cloud to the edge” innovation. Through the IBM cloud management capabilities including Red Hat OpenShift®, you can securely access data anywhere within this new environment, regardless of cloud provider—or even if the information resides on in-house systems.

Shipyard Digital Transformation – TGI Reader

PROBLEM STATEMENT	BENEFITS
<p>Need a way to capture data we do not have on the existing process while reducing administrative burden of workers.</p> <ul style="list-style-type: none"> • Currently capturing data by hand on TGIs • Manual process to update downstream systems • Lack end to end process observability and metrics • Scan->Read->Write data to SYB System • Create NSY consolidated “Driver Tree” with goal towards Productivity and Efficiency 	<p>Improve mission readiness & reduce backlog</p> <ul style="list-style-type: none"> • Increase Time on Task (ToT) • Reduce administrative burden and overhead • Need for immediate and incremental change • Develop framework to drive continuous improvement measurement & motivation <p>Unlocks potential in process and manually curated data</p> <ul style="list-style-type: none"> • Supports implementation of process change, automation, and GenAI • Promotes near, long, and dynamic planning and action • Clarifies driver tree and NorthStar metrics • Network effect of data for new initiatives and outputs <ul style="list-style-type: none"> • VBA – Fraud, Policy Change, Public Health Informatics • DLA – Promote Customer Engagement, Digital Business • Organic & Incremental – Crawl, Walk, Run
<p>TECHNOLOGY SOLUTION</p> <ul style="list-style-type: none"> • Implement Intelligent Document Processing and downstream system update (IDP+Integration) & provide measurable impact assessment • Align Driver Tree to processes, identify gaps, and opportunities for improvement • Develop roadmap and backlog of next step enhancements • Establish foundational process, data, knowledge models and technology to drive future automation, analysis, and process/resource analytics 	

ALL-TEST Pro

Focus Area: CBM+/Predictive Maintenance

Contact

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ALL-TEST Pro is a worldwide leading manufacturer of electric motor predictive maintenance (PdM) equipment and condition monitoring tools. Since 1985, ALL-TEST Pro has provided the industry with the most advanced predictive maintenance (PdM) testing and troubleshooting tools for AC and DC motors, coils, windings, transformers, generators and more to a wide range of industries worldwide.

ALL-TEST Pro Energized and De-Energized Electric Motor Testing Equipment

Problem Statement:

- o Unable to diagnose and separate a motor from a mechanical fault.
- o Motors age, deteriorate, and can fail without notice
- o Traditional tooling does not determine the full health of a motor.
- o Unable to determine the condition of a motor system, leads to unnecessary maintenance, full replacement, or a shut down



Technology Solution Statement:

MCA finds both good & bad motors. ESA includes both power management and motor management of the entire motor system. ALL-TEST Pro instruments ensure that testing your motors is safe, easy, and dependable. Safeguard your operations that rely on electrical motors, variable frequency drives, transformer and generators with ATP instruments and software. ATP products help you maintain, schedule service, trend asset life, troubleshoot and diagnose your motors, thereby simplifying maintenance programs with accurate data for incoming motors, outbound repairs, safety concerns, scheduling maintenance, general operations & more.

Benefits Statement:

- o Reduce wasted troubleshooting hours and unexpected downtime
- o Field portable, light weight, battery powered, easy to operate, complete test in a few minutes
- o Quickly diagnose the full motor system and pinpoint electrical and/or mechanical issues
- o Improve/expand existing condition based monitoring (CBM) program
- o Trend motor system health to improve planning and scheduling activities

Amazon Web Services

Amazon Web Services (AWS), the world's most comprehensive and broadly adopted cloud, helps millions of customers around the world reduce costs, become more agile, and accelerate transformation with the most capabilities, the largest community, security they can count on, continuous innovation that ensures they always have what they need, and the most operational expertise that helps them build faster and with more confidence. AWS gives customers greater choice and flexibility by offering the broadest and deepest set of cloud capabilities to meet their specific needs. Choice and flexibility makes easier and more cost effective to move applications to the cloud and build nearly anything you can imagine. Security is our top priority. AWS is architected to be the most flexible and secure cloud computing environment available today. Our infrastructure is built to satisfy the security requirements for governments, global banks, and other high-sensitivity organizations. We work backwards from our customers' needs, understand where they're headed, and continually innovate to help customers move ideas to reality and accelerate transformation, today and in the future. AWS has the most operational experience, at the greatest scale, of any cloud provider, with unmatched performance, reliability, and guidance customers can depend on for your most important applications.

Focus Area:
CBM+/Predictive Maintenance

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Advanced Data Analytics for Shipyard Optimization

<p>PROBLEM STATEMENT</p> <ul style="list-style-type: none">• The lack of a central repository for the vast amounts of sensor and system data results in difficulty effectively leveraging data to schedule work, predict maintenance, and manage the supply chain.• Mechanisms for making decisions are highly manual and time consuming. Workers must find and reference various system documentation, databases, and applications, increasing the possibility of errors and delaying ship availabilities.	<p>BENEFITS</p> <ul style="list-style-type: none">• Accelerate by deploying into the existing NMMES CHE• Transform data into a strategic asset, accelerating innovation, enhancing operational effectiveness, and improving ship and submarine availabilities.• End-to-end data governance so your team can move faster with data and meet appropriate security requirements• Combine data from various systems to identify opportunities to streamline operations and reduce costs.• Predict maintenance, enable proactive and cost-effective repairs and procurement ,and minimize unexpected downtime by ingesting and analyzing sensor data from naval assets.• Quickly synthesize insights, reduce manual tasks, make data driven decisions, and create synthetic training data using generative AI models.
<p>TECHNOLOGY SOLUTION</p> <ul style="list-style-type: none">• A scalable and secure data lake with the Naval Maritime Maintenance Enterprise Solution (NMMES) Cloud Hosted Environment (CHE) on AWS provides a central repository for shipyard data and the foundation to use AWS data analytics and generative AI services, as well as third party tools, to easily ingest, store, and analyze data from any source.• Create custom, secure applications for shipyard operations using AWS generative AI tools, including Amazon Bedrock. Amazon Bedrock offers the broadest selection of leading LLMs and FMs, allowing you to choose the right model for the job. Build, scale, and secure generative AI applications that are production ready at the right cost and speed.	<p>GRAPHIC</p>

Avathon Government, Inc.

Focus Area: CBM+/Predictive Maintenance



Contact

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Avathon harnesses proven AI technology to bolster military readiness, improve decision advantage, and optimize defense operations. Backed by a decade of successful commercial deployments, we provide practical, readiness-focused solutions to upskill maintainers and leverage predictive analytics, partner with the armed forces to enhance domain awareness and decision making, and enable modernization of the defense industrial base by optimizing capital equipment uptime, predicting engine failures, and strengthening supplier quality control through advanced technologies like deep learning NLP, generative AI, and computer vision.

Digital Maintenance Advisor (DMA)

Problem Statement:

Declining mission-capable rates, skilled labor shortages, and increasingly complex systems are straining military maintenance operations. Slow workflows, parts delays, and limited supply chain insight degrade readiness and overload personnel – especially those with less experience.



Technology Solution Statement:

DMA applies explainable AI to deliver faster, smarter maintenance. It ingests structured and unstructured data to identify issues early, recommend actions, and surface parts availability – empowering maintainers to resolve problems quickly and accurately while providing leaders with actionable insights into fleet readiness.

Benefits Statement:

DMA enhances asset availability, reduces maintenance delays, and improves decision-making. It cuts resolution time by up to 30%, boosts maintainer confidence, and supports retention by simplifying tasks. Leadership gains near real-time insight into fleet health, enabling proactive, informed readiness decisions.

Edlore

Focus Area: CBM+/Predictive Maintenance



Contact

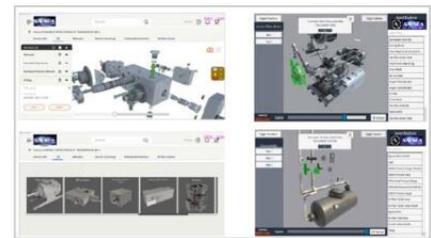
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Edlore is a pioneer in AI/ML and 3D technological solutions, reshaping industry standards with its interactive manuals and wearable device integrations. Our patented AI-driven platform transforms complex technical orders into digestible, contextually relevant insights, streamlining operations. With state-of-the-art mobile and wearable technology, professionals achieve access to crucial data, ensuring efficiency and precision. Our platform also encompasses a robust Work Order Management system, enhanced by asset tracking and multimedia attachments, facilitating seamless operations and maintenance processes. At Edlore, we blend innovation and practicality, consistently delivering excellence in an ever-evolving technological landscape.

Edlore AI-On Prrmise server with 3D parts identification

Problem Statement:

Despite the rapid advancement in industrial and technical operations, complex equipment service and maintainers often grapple with cumbersome manuals, scattered asset data, and lack of real-time expert assistance. This disjointed information flow increases operational downtime and raises the margin for error.



Technology Solution Statement:

Edlore introduces a unified technology suite designed for the modern maintainer. Leveraging AI's power, we've transformed dense manuals into interactive, 3D-guided insights that intuitively provide the right information at the right time. Our platform, optimized for desktop, mobile and wearable devices, ensures hands-free, on-the-go access to these insights, minimizing downtime. Furthermore, with our real-time Remote Expert Video Chat, professionals are never alone in the field, always having a lifeline to expert assistance. Paired with a comprehensive Work Order Management system and dynamic asset tracking, Edlore's solution streamlines operations. A simple scan of a device will show all manuals, drawings, videos, pictures, LOTO Safety, PM procedures, Remote Expert Video Chat and 3D/AR explosive view with parts metadata that allows you to even send the part to be printed on a 3D printer.

Benefits Statement:

Empowering maintainers with immediate access to AI-enhanced, 3D interactive guidance, reduces operational errors and downtime. By unifying knowledge, expertise, and real-time tracking within a mobile and wearable interface, we ensure every task is executed with precision, speed, and confidence. The benefits of using Edlore are:

1. More efficient on-board service and repair.
2. Never miss regular PM Maintenance.
3. Access to device parts metadata and ability to possibly print the component on board.
4. Gathering field data from service and repair.
5. Mobile and handsfree operation.

BlastOne International

Focus Area: Coating and Corrosion Prevention

Contact

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Originally established nearly 50 years ago to provide technical consulting, BlastOne has grown to become a single source supplier of blasting equipment, abrasives and know-how to customers all over the world. BlastOne operates internationally from several offices across Australia, New Zealand, North America and Europe. We stand behind our brand claim of superior performance. It's something we define as 'Performance3'—the result of combining superior know-how with superior abrasives and superior equipment. In short, it delivers greater cost-efficiencies for our customers.

Blast & Coating Equipment

Problem Statement:

The blasting and finishing industry faces critical challenges, including manpower shortages, downtime from faulty equipment, environmental and dust concerns, and significant operator safety and health risks. Facilities are expected to deliver more productivity, cost efficiency, and safety, yet struggle with inconsistent performance and equipment reliability.



Technology Solution Statement:

BlastOne's Velocity™ System is a game-changing advancement that integrates seamlessly into high-pressure production environments. It is engineered to alleviate short-term blast and coat bottlenecks by combining cutting-edge technologies like Intelliblast Blast Pot Controls, Snakebite Blasting Nozzles, and Vortex Airflow Movement. Together these components act as a force multiplier, delivering exponential gains in productivity, reliability, and environmental safety while addressing the industry's most pressing challenges.

Benefits Statement:

BlastOne's integrated solutions, including the innovative Velocity™ System, provide significant benefits by streamlining the blast and paint portion of production. This targeted approach reduces manual labor and enhances throughput in these critical processes. Proactive maintenance via BlastShield™ packages ensures reliable performance and minimizes downtime. Additionally, our solutions improve environmental outcomes and operator safety while supporting facilities in achieving their productivity and cost-efficiency goals.

G.C. Laser Systems, Inc.

Focus Area: Coating and Corrosion Prevention

Contact

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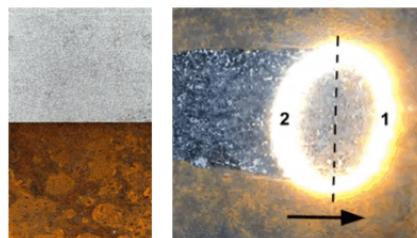


G.C. Laser Systems Inc. is an American laser cleaning system manufacturer and a CWOSB with headquarters in Illinois. Our unique and globally patented laser cleaning technology is proudly designed and made in the USA. This proprietary technology was initially developed to clean cultural heritage buildings and artifacts with unmatched precision, and has evolved into many heavy duty industrial and DoD applications. From making our own scan heads and optics to fabricating our systems with durable stainless steel and powder coated aluminum to endure humid and corrosive environments, we specialize in delivering off the shelf and custom bespoke laser ablation tools that can work during all four seasons worldwide.

Laser Cleaning Technology

Problem Statement:

Removing corrosion and coatings from a variety of surfaces can be challenging and the process of abrasive corrosion removal can wear down the thickness of the assets being cleaned, reducing its useful service life, as well as pose environmental concerns with traditional blasting media and chemical stripping containment. Traditional cleaning techniques rely on consumables and have a lot of clean up and disposal costs.



Technology Solution Statement:

G.C. Laser Systems offers environmentally friendly, durable, and compact portable laser systems for removing rust, paint, coatings, and contamination from surfaces. Built with an in depth understanding of the photomechanical, photothermal, and photochemical effects that laser pulses can have on a surface, our highly tunable systems offer unmatched precision, control, and repeatability with laser ablation cleaning and surface prep. Corrosion, salts, and coatings are removed from metal surfaces without causing any damage or thickness loss to the substrate.

Benefits Statement:

- Environmentally friendly.
- No consumables.
- No damage to substrate being cleaned.
- Less heat on surface than other laser ablation systems.
- Patented high speed and hot-spot-free laser cleaning.
- The beam never stops in one place and rotates at high RPM.
- 2-3 times faster cleaning than competitors.
- Designed and made in the USA.
- Made for use in humid and corrosive environments.

Shape Waterblast Group

The SWG (Shape Waterblast Group) combines premier waterblasting companies under the Shape Technologies Group, the global leader in ultrahigh-pressure technology solutions. Unifying APS, Aqua-Dyne, RPS, and Flow SP under a single umbrella empowers us to harness over 125 years of collective wealth of expertise, resources, and innovation. This enables us to provide an even more robust and comprehensive solution at an unparalleled value to our customer's needs.

Focus Area: Coating and Corrosion Prevention

Contact

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Ultra High Waterblasting Equipment

<p>PROBLEM STATEMENT</p> <ul style="list-style-type: none">• Corrosion results in substantial financial losses across industries annually due to the damage of assets and infrastructure.• In response to growing environmental concerns, organizations are increasingly being encouraged to implement sustainable practices, including the use of environmentally friendly products and waste reduction strategies.• Conventional cleaning methods pose risks to both personnel and the environment, while also incurring significant costs related to the use of hazardous materials and consumables.	<p>BENEFITS</p> <ul style="list-style-type: none">• Provides a safer, more environmentally responsible solution.• Effectively removes rust, corrosion, and coatings while preserving the integrity of the underlying surface.• Utilizes non-toxic, chemical-free methods that do not produce harmful fumes.• Incorporates streamlined, user-friendly cleaning procedures that are easy to master.
<p>TECHNOLOGY SOLUTION</p> <ul style="list-style-type: none">• Water blasting surface treatment efficiently removes rust and corrosion from a wide range of equipment, enhancing both durability and performance.• This non-abrasive cleaning technique significantly reduces environmental impact.• Its portable and adaptable design provides mobility, enabling personnel to maintain equipment readiness in any setting.•	<p>GRAPHIC</p>  <p>The graphic shows the SWG logo, which consists of a stylized blue triangle composed of smaller triangles, followed by the text 'SWG' in a large, bold, sans-serif font, and 'SHAPE WATERBLAST GROUP' in a smaller, all-caps, sans-serif font below it.</p>

Solarcore

Focus Area: Coating and Corrosion Prevention

Contact

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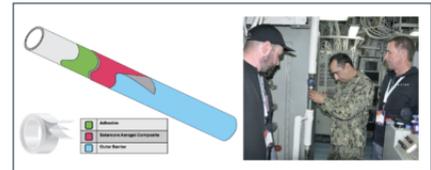
Solarcore is a materials technology company that develops the most scientifically innovative thermal solutions on the planet. Solarcore is a dual-use company with material sales objectives in government and commercial sales. Its core competencies are technology development of thermal materials, market development of thermal solutions, and dedicated marketing and sales in consumer, commercial and government markets.

Ultra-Thin Heat Shield Using Polymer-Aerogel Insulation to Reduce Heat Transfer and Thermal Signature of Extreme Temperature Sources

Problem Statement:

A common problem associated with traditional chill water pipe lagging is corrosion under insulation (CUI). When chill water runs through piping on ships condensation builds up and drips on pipes as well as fittings and other components in the vicinity. This causes:

- Costly corrosion to equipment, fittings, other components
- Requires down time for repairs and replacement
- Inefficient insulation impacts chill system performance
- Comfort and habitability problems for the environment



Technology Solution Statement:

Solarcore's proprietary polyimide lagging alternative offers an easy to install solution which is fast and effective. The low-profile aerogel material eliminates thermal transfer with only a few millimeters of thickness attached directly to surface of the piping, elevating the surface temperature above the dew point away from the pipe eliminating condensation formation in critical areas. This is accomplished by taking advantage of the patented nano-porous non-shedding polymer aerogels and providing properties to minimize conductive and convective heat transfer.

Benefits Statement:

Current chill water pipe lagging is bulky and takes up valuable space on ships as well as a cumbersome installation process. Solarcore's polyimide aerogel thermal management materials provide:

- Improved thermal efficiency which equates to less use of energy to maintain proper temperatures
- Space savings from a thinner more efficient solution
- Easily installed products in the event of needed repairs
- Characterization data for the aerogel material data shows performance gains with a much lower profile than existing products

Valkyrie Enterprises

Valkyrie Enterprises enhances defense and industrial operations by providing engineering and technological expertise, real-world and simulated training programs, critical infrastructure security and products, data analysis in virtual environments, systems engineering and training analysis, and hands-on maintenance and fabrication services.

Focus Area: Coating and Corrosion Prevention

Contact

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Valkyrie Enterprises is an innovation-focused company that elevates customer goals from baseline to astounding.



Ship 2 Shore Corrosion Control

<p>PROBLEM STATEMENT</p> <p>Corrosion is a \$6billion dollar problem for the US NAVY.</p> <p>The US Navy faces a significant corrosion problem, where constant exposure of its ships to harsh marine environments results in substantial maintenance costs and reduced operational readiness due to the deterioration of critical components, often requiring extensive repairs, impacting mission effectiveness and placing a substantial financial burden on the Navy. Having the solution only involve external help without training the sailors reduces the self-sufficiency and potential ownership by ships force.</p>	<p>BENEFITS</p> <p>Immediate arresting of rust and long lasting prevention. Sailor training produces ownership and self sufficiency. Sailors learn how to remediate the rust with easy to apply products that require little to no preparation of the surface all while being considered environmentally friendly and easy to apply; essentially, it prevents rust and extends the lifespan of equipment with minimal maintenance needs. Ship2Shore Corrosion products produce immediate long lasting results</p>
<p>TECHNOLOGY SOLUTION</p> <p>Valkyrie's Ship2Shore Corrosion products allow sailors to address the corrosion issue without extension rust remediation with products that arrest rust and protect the area from further deterioration.</p> <p>Applying S2S requires minimal surface preparation and can be used on epoxy-coated, rusted, and new metal surfaces. No curing time means protection starts as soon as they are applied. The products are safe to apply and immediately polar bond to the surfaces, displacing water and oxygen, creating a long-lasting protective barrier against rust.</p>	<p>GRAPHIC</p>  <p>BEFORE AFTER</p>

American Ceramic Technology

American Ceramic Technology, Inc. is the ISO 9001:2015 manufacturer of Silflex® Shielding, the award winning nonhazardous, non-lead radiation shielding. In 2005, Silflex® tungsten shielding was developed and certified by Entergy and ANO in 2007 for use in the nuclear industry. We have expanded into the medical, military, NDT, mining and oil & gas industries. Manufacturing is located in California and South Carolina. We have many radiation shielding materials and product options designed with a flexible silicone base. We design custom solutions to help customers achieve their ALARA goals. Silflex® shielding is designed for maximum radiation dose reduction during operation and installation to protect personnel and equipment. American Ceramic Technology's innovative technology allows nuclear power plants, laboratories and naval reactors to provide a safer, cleaner and more efficient work environment.

Focus Area: Energy, Environmental, Health, and Safety

Contact

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www.silflexshielding.com



Non-hazardous radiation shielding



American Ceramic Technology / Silflex Shielding Non Hazardous Radiation Shielding

Show Name
Show Location

PROBLEM STATEMENT	BENEFITS
<p>ANO Nuclear Plant was looking for a new and innovative radiation shielding</p> <p>Needed to be just as effective as lead shielding</p> <p>Needed a quicker application than lead shielding</p> <p>Need to be a safer environment for workers to install shielding</p>	<p>*Saved ANO Nuclear of \$319,000.00 in total saving for one project</p> <p>*Tungsten weighs 25-50% less than lead and twice as effective</p> <p>*Less toxicity hazard and mixed waste processing costs</p> <p>*Tungsten is more effective than lead at reducing Gamma Rays</p> <p>*Workers avoid exposure to Lead Shielding when wearing the vest by 39% through the use of Tungsten Vests</p> <p>*The total exposure avoided was 642 person-mRem</p>
TECHNOLOGY SOLUTION	GRAPHIC
<p>The project consisted of two parts. First part was shielding the source. Installation of tungsten shielding blankets with imbedded magnetics that form fit with ease. They were 25-50% lighter than lead which was easier to install and also twice as effective than the previously used lead shielding. Second part was shielding the person. "If you can't shield the source, shield the person." ANO founded the fabricated tungsten vest to eliminate concerns that are associated with lead shielding exposure to humans and the environment.</p>	

Amphenol TPC Wire & Cable

Focus Area: Energy, Environmental, Health, and Safety

Contact

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Amphenol TPC Wire & Cable is a leading manufacturer of high-performance wire, cable, connectors, and assemblies engineered to perform in the harshest industrial and marine environments. With over 45 years of expertise, we deliver rugged, long-lasting solutions that reduce downtime, improve safety, and extend equipment life.

High-Performance Wire, Cable, and Deployment Systems for Marine Environments

Problem Statement:

- Power assemblies and welding cables in shipyard and marine settings face constant exposure to salt spray, moisture, abrasion, impact, and reeling tension.
- Poor storage or deployment systems lead to tangled or damaged cables, causing costly downtime and safety risks.
- Vessel shore-power connections often rely on generic assemblies that fail to deliver reliable, weather-resistant performance under harsh marine conditions.
- The movement, storage, and use of large, heavy electrical cables or cable reels create a worksite safety risk for employees and contractors.



Technology Solution Statement:

Our integrated systems combining custom-engineered reel enclosures and cable reels with marine-rated, MILC24368/1 shore-power assemblies or ruggedized weld cable assemblies to address these challenges. The custom reel enclosures offer tailored size, material and deployment features for organized rapid cable deployment. The cable assemblies provide a weather-sealed, corrosion-resistant interface, designed specifically for demanding marine environments.

Benefits Statement:

- Organized cable storage and deployment via enclosures reduces tangles and damage, improving uptime.
- Rugged shore-power assemblies rated for marine conditions deliver reliable connections, reducing risk of failure.
- Customizable system allows specification of enclosure materials, cable length, connector options — resulting in lower life-cycle cost and fewer modifications.
- Minimized downtime, enhanced operational safety, and improved vessel connectivity in shipyard and marine environments.
- Properly specified cable types and cable management systems improve worksite safety and protect personnel from both physical ergonomic or electrical hazards.

Impacto Protective Products

As a leader in the personal protective product industry Impacto Protective Products provides customers with innovative products that enhance safety and productivity in the workplace. Our network of sales staff works closely with customers across a wide range of industries to produce measurable results.

We have long been recognized for products that protect against workplace injuries by assuring exceptional levels of protection. We specialize in design, manufacturing and distribution of custom ergonomic products to help prevent a wide range of cumulative trauma and repetitive strain injuries.

Impacto® products are distributed around the world and are used in many job applications including manufacturing, warehousing, assembly lines, industrial applications, construction, mining industry, forestry, office settings and many more.

Focus Area: Energy, Environmental, Health, and Safety

Contact

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[Website](#)



Ergonomic PPE



IMPACTO PROTECTIVE PRODUCTS INC.
Ergonomic PPE

NCMS Technology Showcase
Pearl Harbor Naval Shipyard

<p>PROBLEM STATEMENT</p> <p>Personal Protective Equipment to help resolve ergonomic issues while doing maintenance and repair work.</p>	<p>BENEFITS</p> <p>Reduce ergonomic issues Increase productivity Avoid lost time injuries Worker comfort</p>
<p>TECHNOLOGY SOLUTION</p> <p>ANSI Certified Anti-Vibration Gloves Hand Protection Foot Protection Knee Protection Arm Protection Body Protection.</p>	<p>GRAPHIC</p>

StoneAge, Inc.

StoneAge is an engineering and manufacturing center for high pressure waterblast tools used for industrial cleaning. Our primary focus is to introduce fully automated tooling to remove operators from the dangers of high-pressure water. StoneAge recently acquired Terydon who specializes in heat exchangers and condensers.

Focus Area: Energy, Environmental, Health, and Safety

Contact

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Automated and Portable Waterjet System



StoneAge, Inc.
Automated and Portable Waterjet Systems

NCMS Technology Showcase:
Pearl Harbor Naval Shipyard

<p>PROBLEM STATEMENT</p> <ul style="list-style-type: none"> -Corrosion and coating removal methods can be lengthy -Processes used can pose a significant safety risk to personnel and equipment -Removal of corrosion/coatings without affecting the substrate can be challenging -Surfaces can flash rust after coating removal and before inspection leading to delays 	<p>BENEFITS</p> <ul style="list-style-type: none"> -Rapidly remove corrosion and coatings -Significantly reduce safety risks and resource hours -Coating application immediately follows removal and inspection -Prevent flash rust from developing prior to inspection or coating application
<p>TECHNOLOGY SOLUTION</p> <ul style="list-style-type: none"> -Waterjet/waterblast equipment is highly effective in removing corrosion and coatings -Automated waterjet/waterblast solutions are developed and deployed -Removal of coatings without affecting the substrate, restoring the surface to its original profile -Rust inhibitor can safely be added to the supply water 	<p>GRAPHIC</p> 

4D Technology, an Onto Innovation subsidiary

Focus Area: Enhanced Inspection



4D Technology

Contact

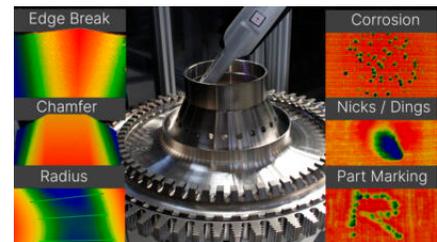
Patricia Browne
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4D Technology is the leader in high-resolution surface, geometry and wavefront measurements for challenging locations and applications.

3D Optical Defect & Roughness Gauges

Problem Statement:

Performing precise, high-resolution measurements of defects and surface roughness directly on the shop floor or in the field—even on large parts and complex geometries—with exceptional accuracy and repeatability.



Technology Solution Statement:

The 4D InSpec uses patented vibration-immune technology to take rapid, repeatable, high-resolution surface measurements in challenging environments where there is vibration. This proprietary technology, referred to as Dynamic Interferometry®, allows for non-contact, 3D metrology to be used on shop floors and in the field for applications such as measuring defects and features on precision machined surfaces.

Benefits Statement:

The 4D InSpec delivers fast, accurate, and repeatable 3D surface measurements right on the shop floor or in the field—eliminating the need for replication or lab-based metrology.

- Increase yield by 20–40% by accurately measuring defects up to specification limits, enabling more parts to pass and reducing unnecessary scrap.
- Instant, non-contact 3D measurements of pits, scratches, nicks, dents, bumps, edge breaks, radii, and other features from 2 μm to 2.5 mm deep.
- Portable and rugged design for use on large parts and complex geometries in challenging environments.
- Micron-level resolution and high repeatability, outperforming visual inspection and tactile methods.
- Easy to use—one-button operation and intuitive touchscreen interface allow non-experts to take precise measurements within minutes.
- Flexible deployment: handheld, workstation, or robotic integration for automated inspection and high throughput.
- Comprehensive analysis and reporting with automatic defect detection, 3D visualization, and seamless data export to quality systems.

Creaform

Creaform develops, manufactures and markets cutting edge portable 3D measurement and analysis technologies that increase productivity. Creaform offers innovative solutions for applications such as 3D scanning, reverse engineering, quality control, non-destructive testing, product development, and numerical simulation (FEA/CFD). Its products and services cater to a variety of industries, including automotive, aerospace, consumer products, heavy industries, healthcare, manufacturing, oil and gas, power generation, research and education.

With headquarters and manufacturing operations in Lévis, Québec, Creaform operates innovation centers in Lévis and Grenoble France, and has direct sales operations in Canada, USA, Mexico, Brazil, France, Germany, Italy, Spain, China, Japan, Korea, Thailand and Singapore.

Creaform is a unit of AMETEK Ultra Precision Technologies, a division of AMETEK Inc., a leading global manufacturer of electronic instruments and electromechanical devices, with annual sales of approximately \$4.0 billion.

Customers benefit from fast, accurate, repeatable measurements. Creaform technologies make it possible to measure in the real world without loss of accuracy.

Focus Area: Enhanced Inspection

Contact

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<https://www.creaform3d.com/en>



Creaform 3D Scanning Solutions



Creaform
3D Scanning Solutions

NCMS Technology Showcase
Pearl Harbor Naval Shipyard

PROBLEM STATEMENT	BENEFITS
<ul style="list-style-type: none"> What problem or need does this technology solve? 1) Quick, Accurate, and Repeatable physical damage assessment and reporting <ul style="list-style-type: none"> Damage assessment of skins, body, structures, pressure vessels and fuel tanks. Support for all opaque materials, traditional metals and composites. 2) Lead time and availability of replacement parts can cost the Navy weeks or months unless locally sourced. Worn or damaged parts need to be accurately and repeatably measured to ensure they will fit right the first time <ul style="list-style-type: none"> Fully portable and easy to operate for field technicians at high accuracy. 	<p>Scanning Simplicity</p> <ul style="list-style-type: none"> Software and Hardware are mature in 4th & 5th Generations Hardware interfaces have been developed for any skill level to operate with minimal training. eLearning online training modules available for all software and hardware on demand. Software modules each have similar familiar interfaces making learning easier. <p>Highly Portable</p> <ul style="list-style-type: none"> Each scanner is in a relatively small case and does not require a heavy tripod. Setup in 2-3 min. <p>Certified Accuracy supporting mission readiness.</p>
<p>TECHNOLOGY SOLUTION</p> <p>Creaform HandyScan Series:</p> <ul style="list-style-type: none"> Black+ Elite and MAX Elite – Small to Large part Scanning ISO 17025 certified - VDI/VDE 2634 part 3 & ISO 10360 High Resolution & Accuracy Portable Scanner – Only laptop and power Simplified interface for rapid & repeatable damage assessment replacing traditional pit gauge Monitor Damage over time, comparing one scan to future scans Extract measurements, features and cross-sections for reverse engineering with any professional CAD program. Accurate & Repeatable – design it right the first time Supports Scan to Print Compare manufactured parts to nominal CAD or "golden" scan. Full GD&T inspection process. 	<p>GRAPHIC</p> 

FTL Labs Corporation

Focus Area: Enhanced Inspection

Contact

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FTL Labs Corporation is a small engineering research and development firm in Amherst, Massachusetts. FTL was founded based on a team-building culture that enables us to solve complex multi-disciplinary problems in advanced technology areas with contributions of experts across the globe.

DADTMA (Distributed Acquisition Digital Twin Maintenance Architecture)

Problem Statement:

Traditional Maintenance, Repair, and Overhaul (MRO) practices in the DoD are struggling to adapt to increasing complexities in aircraft maintenance and quality assurance processes, including the use of digital tools and automated technologies to capture maintenance data and streamline workflow management. Current processes are inefficient, requiring time-intensive human-performed inspections and data collection before, during, and after maintenance tasks. The process frequently requires tedious and error-prone record keeping with pen and paper before transcription to a computer for access by teams.



Technology Solution Statement:

DADTMA is a software solution designed to collect, store, and analyze damage and repair data during naval depot maintenance and sustainment activities. DADTMA consists of a tablet app and a web app working in concert to rapidly collect data and store it in a Digital Twin in a secure GovCloud database. It employs automated USB tool data entry, 2D and 3D imaging, graphical database storage, data mining tools, and graphical data analysis to locate and track maintenance issues that are otherwise difficult to discern. It enables communication of that information across the Navy's current software ecosystem. Ultimately DADTMA will provide a Naval Depot Maintenance and Sustainment tool that will increase the efficiency, repeatability, and accuracy of inspection results, for any asset type.

Benefits Statement:

Reducing costs and shortening maintenance turn-around times at aircraft depots is a high priority for the Navy. Responding to this need, DADTMA reduces manpower-intensive engineering costs associated with repair and maintenance inspections by accelerating data collection on depot floors and enabling the transfer of that data, along with asset and maintenance process information to the DADTMA Digital Twin. Primes such as Northrop Grumman anticipate a 10% time-reduction in inspections, yielding \$10M in savings in lifecycle cost for a single product.

Greensea IQ

Focus Area: Enhanced Inspection

Contact

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Greensea IQ
Intelligent Ocean Solutions

Greensea IQ is a dual-use technology company transitioning mature solutions developed for and by the defense industry to the commercial markets. With the competitive advantage of a 20 year head start Greensea IQ's core technology OPENSEA is the open architecture operating software driving it all. OPENSEA is deployed on thousands of systems throughout the world's oceans in both commercial and defense applications demonstrating the leadership we have in the development of advanced underwater robotics.

EverClean robotic underwater hull maintenance and inspection

Problem Statement:

Traditional in water hull cleaning and biofouling management methods are expensive, toxic, and ineffective. Proactive cleaning, the light brushing of ship hulls regularly, is proven to prevent biofouling from growing, providing a constantly clean hull unlike the traditional diver reliant service models and existing robotic capture solutions which are not viable or economically scalable for regular proactive service.



Technology Solution Statement:

The EverClean robot can deliver immediate, measurable impact through enhanced operational efficiency, superior performance, and reduced environmental footprint.

Its proven inspection capabilities enable more frequent and detailed assessments of hull condition, including corrosion, paint degradation, and physical damage.

EverClean is ready to scale to a one-to-one ship-to-robot model, enabling safe hull maintenance and inspection wherever the vessel is located– without relying on diver availability. In total, these capabilities translate into increased fleet readiness, reduced acoustic signature, and sustained performance.

Benefits Statement:

Greensea IQ uses advanced robotics as the enabling factor to offer vessel operators a revolutionary way to manage their fleet's hull performance. By maintaining a always clean hull we change the entire dynamic around hull maintenance from an inefficient, episodic or reactionary model, to a always clean intelligence-based model, further enhancing operational efficiencies through the constant collection and reporting of important ship hull data.

Hexagon Manufacturing Intelligence, Inc.

Focus Area: Enhanced Inspection

Contact

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Hexagon is a global leader in digital reality solutions, combining sensor, software and autonomous technologies. We are putting data to work to boost efficiency, productivity, quality and safety across industrial, manufacturing, infrastructure, public sector, and mobility applications. Our technologies are shaping production and people-related ecosystems to become increasingly connected and autonomous – ensuring a scalable, sustainable future. Hexagon's Manufacturing Intelligence division provides solutions that use data from design and engineering, production and metrology to make manufacturing smarter. For more information, visit hexagon.com/mi.

Hexagon – Portable Scanning, probing, NDT/NDI, and much more.

Problem Statement:

Technicians face the challenge of requiring multiple devices to perform a variety of quality assessments, from non-destructive testing (NDT) to laser scanning and probing. This complicates the workflow, and escalates costs and training requirements. The need is for a singular, versatile system that can seamlessly transition between NDT, high-resolution laser scanning, and precise probing without sacrificing accuracy, efficiency, or functionality.



Technology Solution Statement:

A multifunctional tool like Hexagon's Absolute Arm could resolve multi-tool complexities by consolidating quality assessment needs into one integrated solution, thereby optimizing the quality control process. A 3D scan with the Absolute Scanner can be used on small to large objects with Hexagon's AS1 and AS1-XL made for the Absolute Arm.

Benefits Statement:

- High accuracy measurements, with continual support.
- NDT Sensor
- For most Metals
 - Capable to resolve volumetric flaws of 0.5mm and smaller
 - Compliant with most codes: ASTM, ASME, etc...
- For most Welds
 - Capable of resolving through-wall extensions of 5-10%T
 - Compliant with most codes: ASTM, ASME, AWS, EN/ISO, API
- For most Composites
 - CFRP / GFRP
 - Easy to resolve 2.5mm flaws (and smaller)
- AS1 / AS1-XL Absolute Laser Scanner
- Complete digitizing from small to very large parts

Hexagon Manufacturing Intelligence – Metrology Software

Focus Area: Enhanced Inspection

Contact

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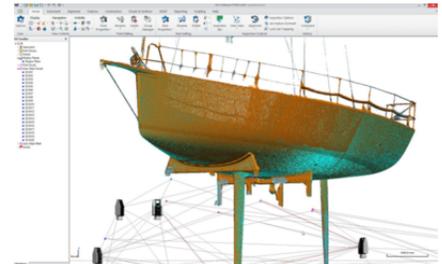


Hexagon Manufacturing Intelligence is the largest software developer in the metrology industry and offers a wide range of in-house developed, individually customizable software packages that deliver intelligent and effective data acquisition, analysis and evaluation as well as powerful data management and reporting tools. These solutions include: SpatialAnalyzer, Inspire, Geomagic, PC-DMIS, QUINDOS, BendingStudio, and more.

SpatialAnalyzer & Geomagic Design X Software

Problem Statement:

Shipyards face increasing pressure to modernize and maintain complex vessels and infrastructure while working with aging designs, incomplete documentation, and tight production schedules. Large-scale structures, limited accessibility, and constant configuration changes make it difficult to accurately measure, inspect, and align components. Disconnected measurement and design workflows slow repairs and overhauls, increase rework risk, and make it challenging to reliably reproduce or modify legacy parts and systems.



Technology Solution Statement:

Hexagon enables shipyards to connect physical reality to digital design using SpatialAnalyzer and Geomagic Design X.

- SpatialAnalyzer consolidates 3D measurement data from laser trackers, scanners, photogrammetry, and other portable metrology systems to deliver real-time insight into hull sections, foundations, machinery alignment, pipefitting and structural assemblies.
- Geomagic Design X converts scan and measurement data into precise, editable CAD models, allowing shipyards to reverse-engineer legacy components, validate as-built conditions, and rapidly design replacement or modified parts without relying on outdated drawings.

Together, these solutions establish a digital thread between measurement, inspection, and engineering across ship construction, maintenance, repair, and overhaul operations.

Benefits Statement:

With SpatialAnalyzer and Geomagic Design X, shipyards reduce rework, shorten maintenance and overhaul timelines, and improve confidence in fit, alignment, and installation. Teams gain accurate as-built documentation, faster part reproduction, and improved collaboration between quality, engineering, and production. The result is higher vessel availability, lower program risk, improved schedule predictability, and a scalable foundation for digital shipyard and modernization initiatives.

InfoTech NorthStar, LLC

InfoTech NorthStar, LLC (ITNS) provides professional, technical and engineering support services in several related fields for all phases and types of project, task and service-based work. When we started ITNS, we saw a need in the Government Sector to offer these types of wide-ranging services. ITNS is based in Richland, Washington, and supports the community by hiring many of our employees locally. ITNS is a small, disadvantaged, woman-owned business that while local first, is expanding its reach throughout the entire Government Sector with its task and professional, technical and engineering support services focused offerings. ITNS, LLC was formed and is registered in Washington State in October of 2021 as a consortium of local, experienced Government contractors with over 50 years of combined experience at Government sites around the country. ITNS, LLC is registered with the Washington Secretary of State, Corporation Commissioner and maintains licensed Professional Engineers (P.E.) and other credentialed personnel in many fields on its team.

Focus Area: Enhanced Inspection

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SIMCase and SIMSuite



InfoTech NorthStar, LLC
 SIMCase and SIMSuite

NCMS Technology Showcase
 Pearl Harbor Naval Shipyard

<p style="text-align: center;">PROBLEM STATEMENT</p> <p>The current semi-automated methods of efficiently and thoroughly testing and reporting results for large and/or complex real-world control systems (PLC/HMI/DCS) are time-consuming and laborious processes. Even if partially automated with some level of field I/O simulation, the process is frustrating, especially if you ever need to repeat tests, potentially over the course of several code updates, and multiple phases of testing.</p>	<p style="text-align: center;">BENEFITS</p> <p>SIMCase provides a black-box, hardware-based testing method that is truly independent of the system I/O Eliminates manual lifting/landing of I/O leads to generate test signals Agnostic to and supports all hardware brands Allows for wide range of processing large numbers of simultaneous I/O for advanced logic, interlock, user interface, and performance testing Supports all project phases including development, Acceptance (FAT), Construction (CAT), Operational (OAT), and for long term Maintenance and upgrade testing. Saves project cost and schedule as it is estimated to be an order of magnitude (10X) faster</p>
<p style="text-align: center;">TECHNOLOGY SOLUTION</p> <p>Introducing SIMCase to fully test your process control system I/O, be it on the bench, at the factory or at the field. Your development and test team can now perform expansive automated tests, retests and reports on your control system interfaces, logic, interlocks, alarms and HMI User Interface.</p> <p>SIMCase cables connect in a mirrored fashion to the inputs/outputs of the control system. Special cases of signal conditioning are handled with "Breakout Boards".</p> <p>SIMCase works in conjunction with SIMSuite to make a complete testing solution.</p>	<p style="text-align: center;">GRAPHIC</p> <div style="text-align: center;"> <p>Introducing Automated Testing Technologies <small>Compliant with SIS and Safety Software. UL 508A Listed Equipment</small></p> </div>

Contact

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Metronor is an ISO 9001 certified high technology company with offices in the USA, Norway, and Germany. With over 30 years of expertise in portable metrology, our technology empowers users to measure, align, and scan large-scale assemblies from aerospace structures to automotive tooling as well as industrial fixtures and tubes. Our systems provide high accuracy and precision without using any stickers, markers, or references. Our modular camera-based systems are robust, flexible, and easily upgraded and customized to meet evolving production demands.

Portable probing and portable laser scanning solutions

Problem Statement:

Pipes and tubes need to be replaced with an exact replica to ensure fitment. Traditional methods are slow and removing a pipe causes it to unflex making it harder to measure and ensure its replacement. The locations of pipes and tubes are often in inaccessible places further complicating obtaining a digital twin.



Furthermore, when pipes are bent, pipes of different materials and thicknesses will vary when trying to hone in the bending process. Inconsistencies in bending results in pipes that won't fit which wastes time and materials.

Technology Solution Statement:

- Metronor has devised a shipyard solution to specifically tackle this challenge.
- Clamping a camera rather than using a standard tripod and using a shorter Lightpen for probing in more cramped environments ensure that pipes and flanges are measured and reverse engineered properly. The system case also includes a battery for environments where electricity isn't readily available.
- Measure pipes of any size directly on tube benders and send corrections back to the tube bender.

Benefits Statement:

- The Metronor system is an easy-to-use, sticker-free, industry proven solution that provides accurate and precise data both in the lab and the shop floor.
- Our highly customized, portable solutions can adapt to applications from small to large-sized parts resulting in less line-of-sight issues when measuring due to the ability to use multiple cameras and long probe extensions.
- Direct interfaces with metrology software means the raw data is provided for analysis and less time is taken transferring data over.

TRI Austin

Focus Area: Enhanced Inspection

Contact

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TRI Austin is a leading research and development organization specializing in advanced materials, nondestructive testing (NDT), and innovative engineering solutions. With a strong focus on cutting-edge technologies, TRI Austin serves industries such as defense, aerospace, energy, and manufacturing, delivering tailored solutions to meet complex technical challenges.

Our multidisciplinary team of mechanical, electrical, and computer science engineers, and software developers collaborates to design, prototype, and implement state-of-the-art systems that enhance operational efficiency, reliability, and safety. TRI Austin is renowned for its expertise in robotics, ultrasonic scanning, automated inspection systems, materials characterization, and leveraging these capabilities to drive innovation in critical applications.

Cobots for NDI

Problem Statement:

Inspections are difficult and that difficulty is increase by human factors. Those factors can be keeping track of 1200 fasteners on a wing being inspected or holding an inspection unit over you head to inspect those 1200 fasteners. While inspectors are holding the scanner over their head in a particular spot they also have to watch the inspection unit to verify that data is good and identify any defects.

Technology Solution Statement:

TRI Austin will leverage previous experience in developing non-destructive inspection methodologies and integrating them with collaborative robots to demonstrate this capability on aircraft. The technology areas of interest defined by the USN include:

1. Advanced Robotic Systems Integration for Aircraft Maintenance and Repair
2. Human-Robot Collaboration and Safety in Aviation MRO
3. Emerging Technologies for Autonomous Aviation Maintenance

Benefits Statement:

- o Utilizing cobots will decrease inspector stress by eliminating manual probe holding and awkward arm positioning during scanning.
- o Inspection quality will improve with automated data collection and saving, allowing the inspector to focus entirely on data quality
- o Cobots allow documentation of inspection sites to verify 100% inspection has been achieved



XaaS Labs Inc

Focus Area: Enhanced Inspection

Contact

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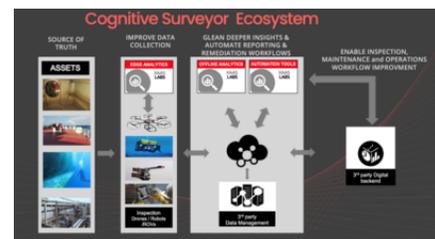


XaaS Labs Inc. (Sunnyvale, CA) provides advanced Data Analytics and Workflow Automation software designed to modernize the inspection, risk assessment, and maintenance of critical infrastructure. From steel and concrete structures to complex industrial assets like pipelines, storage tanks, and turbines, our Cognitive Analytics and Generative AI Agent suite identifies workflow bottlenecks and improves the level of automation for manual processes with the SME in full control. We empower Fortune 100 industrial majors and specialized SMEs to streamline Inspection and Maintenance (I&M) workflows while improving decision-making and reporting quality.

Augmented Cognition for Semi-Automated Fleet Maintenance

Problem Statement:

Dry dock duration is a primary constraint on shipyard capacity, directly impacting availability for critical procedures such as Unrestricted Operations (URO) maintenance. These delays create a bottleneck that prevents submarine fleets from returning to operational readiness on schedule. Currently, Inspection and Maintenance (I&M) workflows are hindered by manually intensive processes—specifically in data acquisition, interpretation, and documentation generation—which place a substantial cognitive burden on Subject Matter Experts (SMEs) and extend asset downtime



Technology Solution Statement:

XaaS Labs addresses these inefficiencies through an Augmented Cognition software stack, utilizing AI-assisted workflow automation to improve the level of automation in manual tasks and reduce SME cognitive workload. Since 2022, XaaS Labs has been collaborating with shipyards to transition our proven success in heavy industrial sectors—including power generation and marine infrastructure—into the naval environment. Our solution optimizes multiple workflow stages by streamlining data-heavy tasks, ensuring the SME remains in full control while operating with enhanced speed and precision.

Benefits Statement:

- Enhanced Fleet Readiness: Reduces dry dock duration to accelerate the return of assets to active service.
- Cognitive Load Reduction: Improves SME productivity and decision-making by mitigating the burden of repetitive analytical tasks.
- Standardized Quality: Elevates the accuracy and consistency of technical reporting through AI-assisted documentation.
- Operational Throughput: Increases overall shipyard capacity by improving the efficiency of critical-path Inspection and Maintenance workflows.

HYTORC

Focus Area: Reliability Improvement (Hardware)



Contact

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HYTORC is the most trusted name in the industry. HYTORC makes industrial bolting safer and simpler. With 50 years of experience focused entirely on developing the highest quality industrial bolting systems and tools, from steel mills and mining equipment to refineries, power plants, and wind turbines; we have developed solutions for every bolting application imaginable. For custom projects, our highly experienced engineering team is at your service to design the most efficient solution for your job with simple, safe, and economical pricing in mind. We are consistently improving upon existing products, and developing new tools, based on feedback from the people that use our tools every day. Our latest product line features patented industry-firsts like hands-free operation to keep tool operators at a safe distance from the application, onboard documentation systems to provide job accountability and assurance, and industry-leading bolt load accuracy to reduce nut loosening and joint failure.

Industrial Bolting Specialists

Problem Statement:

Many companies have Bolting Issues:

- Torquing, Tightening, Specifications to be met.
- Incorrectly tightening or torquing bolts can cause fingers to be severed.
- Over-Torquing bolts can cause substrates to weaken and crack
- Under-Torquing allows bolts to come loose and wreak havoc
- Incorrect maintenance procedures lead to equipment loss,
- Loss of time and manpower.



Technology Solution Statement:

HYTORC Bolting Solutions

- Correct tools for job
- Correct maintenance and calibrations schedules
- Increased Safety
- Training for users

Benefits Statement:

Creating a safer bolting and torquing environment for end users while reporting maintenance to management.

BG Workforce Solutions

Focus Area: Workforce Development/Visualization



Contact

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BG Workforce Solutions is a Lexington, KY based leader in workforce modernization and digital transformation. We provide the Department of Defense and Allied Partner Nations with innovative enterprise software tools and training solutions needed to build and sustain skilled technical workforces.

BG Workforce Enterprise Suite, DoD GovCloud Approved: Gemini™, CertiFLEX™, SMARTS™, and TAILWIND™

Problem Statement:

- The Defense Industrial Base suffers from a severe shortage of skilled labor across critical trades and disciplines.
- Highly experienced Subject Matter Experts (SMEs) retire or leave, taking their knowledge with them.
- It takes too long to upskill new entrants to the workforce, and legacy training methods are inefficient.
- Workers are challenged to find and access critical information at the point of work – they demand capable knowledge support tools.
- Organizations have difficulty identifying, tracking, and developing skills and capabilities within their workforce.



Technology Solution Statement:

Gemini™, SMARTS™, CertiFLEX™, and TAILWIND™ are designed to bolster the Defense Industrial Base labor force and rapidly reverse knowledge attrition by digitally capturing SME experiences, codifying them against skills and capabilities, and delivering them across a distributed workforce in an innovative XR interface with AI assistance. These tools enable customer organizations to develop and maintain their own content libraries and intellectual property, ensuring real-time access to the latest information for all workers in the organization to ensure compliance in the field.

Benefits Statement:

- Rapid enterprise deployment (standup in weeks)
- Enhanced worker speed to competency (~50% reduction in training time)
- Targeted Skills-first Training & Tracking (develop flexible, agile workforce)
- Automate training program administration (reduce overhead costs)
- Adaptable for any operational environment with cloud and standalone capabilities (technology agnostic)
- Standardize training & maintenance operations across the enterprise (improve quality)

Boston Engineering Corporation

Focus Area: Workforce Development/Visualization



Contact

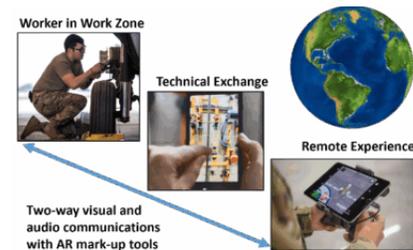
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Boston Engineering is a leader in sustainable digital transformations, implementing innovative technologies, and developing road maps to solve tomorrow's business challenges. Leveraging the latest in emerging technologies, such as Sustainment Robotics (SR), Augmented Reality (AR), Virtual Reality (VR), Internet of Things (IoT), and more, Boston Engineering helps you bring innovation to bear on your mission. Whether leading ideation, developing proofs of concept, building consensus, providing training, or handling post implementation support, simply Image the Possibilities and Boston Engineering will expand your capabilities to innovate.

MREG

Problem Statement:

- Maintenance and sustainment of our weapons systems is being challenged by shrinking experienced workforce and increases in our national retirement rate.
- Nascent workers require training and mentoring before achieving the proficiency of highly skilled workers
- Nascent workers often experience work package execution issues and must leave the work site to seek advice or help with decisions enabling continued work execution
- Many maintenance requirements are discovered only after a weapon system reaches its destination. Knowledge gathering in route to the shipyard is not captured well today.



Technology Solution Statement:

- Mixed Reality Expert Guidance (MREG) is an Augmented Reality (AR) enhanced secure video remote assistance tool connecting experienced workforce to nascent workforce.
- MREG operates on premise, on cloud infrastructure, or in hybrid or mixed connected and unconnected configurations.
- The capability is built using open architecture, open standards, and software licensing to operate not required.
- MREG has been demonstrated on portable 5G communications ship-to-shore in port providing the necessary bandwidth to support video communications.
- MREG is device agnostic.

Benefits Statement:

- Provides experienced guidance to workers in work areas from experienced remotely located high skill or experienced workers and supervisors.
- MREG can record or actively share work assessments in the field in advance of shipyard stationing providing planners advanced information, resulting in reduced schedule.
- Connects nascent workers with retired workers who can work from home or part-time and continue sharing experience.

EFCO USA, Inc.

Established in 1978, EFCO has been a world-leading manufacturer of portable and stationary valve repair and testing equipment. Wherever fittings, valves, and pumps are used, EFCO equipment is also needed to maintain, repair, and test sealing surfaces, shut-off bodies, and housings. We are a family-run business with the philosophy of making our customers our partners – working together to create machining and testing solutions. Customer experience from the extensive use of our machines continuously contributes to our product development.

EFCO equipment is used worldwide, certified to DIN EN ISO 9001, and is characterized by our quality, durability, easy handling, and superior results. Our product range for in-shop and in-field service includes portable and stationary grinding and lapping equipment, flange facers, portable lathes, test benches, and workshops for valves, flanges, and pipelines.

Focus Area: Workforce Development/Visualization

Contact

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Valve Repair & Testing Equipment



EFCO USA, Inc.
Valve Repair & Testing Equipment

NCMS Technology Showcase:
Pearl Harbor Naval Shipyard

PROBLEM STATEMENT	BENEFITS
<p>Time and budget-consuming manual processes</p> <p>Inconsistent results</p> <p>Complicated, limited, or dangerous processes</p> <p>Tool and testing reliability issues</p>	<p>Easy to use, durable, and efficient</p> <p>Versatile, easily customizable, and expandable</p> <p>Use systems more effectively</p> <p>Consistent results</p> <p>Keep downtimes to a minimum</p> <p>Increase the quality and productivity of maintenance</p> <p>Use human resources more responsibly</p>
TECHNOLOGY SOLUTION	GRAPHIC
<p>Stationary and portable equipment for valve repair and testing</p> <p>Valve grinding and lapping equipment for gate, globe, control, safety, and ball valves</p> <p>ID- and OD-mounted flange facers, with CNC options</p> <p>Portable lathes with manual, automatic, and CNC options</p> <p>Test benches for control and safety valves - body, seat leakage, and set pressure</p>	

Humulo Engineering, LLC

Focus Area: Workforce Development/Visualization

Contact

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Humulo Virtual Reality Inc. delivers immersive, procedure-accurate safety and maintenance training for industrial and government environments. Our headset-based platform turns existing SOPs, TTPs, and job sheets into interactive simulations covering lockout/tagout, hot work, confined space, fall protection, rigging, forklift/crane basics, electrical PPE, and hazard recognition. Trainees practice full workflows—identify hazards, don PPE, verify isolation/atmosphere, execute steps, complete QA—while the system captures objective performance data (timing, errors, decision paths) in xAPI for LMS/LRS integration and after-action review.

Designed for field constraints, HumuloVR runs offline on portable headsets (PICO or similar), sets up in minutes, and supports multi-headset sessions without special rooms or network dependencies. Content comes from our Full Library plus rapid custom modules built from customer materials (docs, videos, CAD/drawings).

Maintenance Virtual Simulation Training

Problem Statement:

- High-consequence tasks with limited safe hands-on practice
- Inconsistent procedure execution across shifts/shops
- Instructors/time constrained; hard to scale training throughput
- Rare casualty states and error paths are difficult to replicate
- Limited, non-objective proficiency data for authorizing work



Technology Solution Statement:

- 3–4x faster time-to-competence vs. classroom walk-throughs
- Fewer errors/rework through realistic, repeatable reps of high-risk tasks
- Standardized procedures across teams with objective proficiency evidence
- Higher instructor leverage via automated scoring and AARs
- Portable, on-base training without tying up equipment or pier time

Benefits Statement:

- Converts SOPs/TTPs into interactive VR simulations with guided steps and fault injects
- Runs offline on portable headsets; syncs for analytics when connected
- Auto-scores actions, timing, and errors; exports xAPI to existing LMS/LRS

Moth+Flame

Focus Area: Workforce Development/Visualization

Contact

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Readiness Through Immersive Training

Problem Statement:

Experience matters for the DoW. Currently a lack of experience for simple and complex skillsets is limiting factor. Additionally a lack of data to paint a clear picture of capability.

Technology Solution Statement:

Using immersive training war fighters can train anywhere they are in mass to create a baseline of measured experience.

Benefits Statement:

Create sets and reps without risk to make a more capable service member.