NASA/MARSHALL SPACE FLIGHT CENTER

JOINT COUNSELING SESSION

Jore Industries, Inc.

Jennifer Carroll, CEO

December 2, 2025

Background

COMPANY NAME:	Jore Industries, Inc. JORE INDUSTRIES	**ADDRESS:**	Cummings Research Park 7027 Old Madison Pike NW Ste 108 Huntsville, AL 35806
OWNER:	60% Jennifer Carroll (currently S-Corp/ Reviewing C-Corp Conversion Process) 30% Reserved for future investors 10% Reserved for employee options	**CONTACT NAME:**	Jennifer Carroll
EMAIL:	jcarroll@joreindustries.io	**YEARS IN BUSINESS:**	1 year (operational)(est. 2021- still in start-up)
CAGE CODE:	99C21	**DUNS NUMBER:**	118501854
WEB SITE:	https://joreindustries.io	**NAICS CODES:**	541330, 541490, 541611, 541690, 541715, 541990

Business Size & Classifications

TOTAL EMPLOYEES:	4 (PTE/1099) (still in start-up phase)
AVERAGE SALES:	FY25= ~$25K

CLASSIFICATIONS (select from list below):	Yes/No
SMALL BUSINESS	Yes
SMALL DISADVANTAGED BUSINESS	No
NATIVE AMERICAN-OWNED	No
ALASKAN NATIVE CORPORATION	No
WOMEN OWNED	Yes
ECONOMICALLY DISADVANTAGED WOMEN OWNED	Yes
VETERAN-OWNED	No
SERVICE DISABLED VETERAN OWNED	Yes
HUBZONE CERTIFIED	No
8(A) CERTIFIED	No
8(A) EXPIRATION DATE (if applicable)	No

Start-up Compliance In-Progress

Organizational Structure

Dark blue: 1-3 yr priority
Light blue: 3-5 yr priority
Gray: 5-7 yr priority

Infrastructure & Facility Goals *1-3 yrs*

- ✓State & Federal Registrations: SC & AL, IRS, DUNS, CAGE, SAM.gov, ITAR, E-Verify
- ✓CMMC/NIST Lvl 1 SSP & Microsoft GCC
- ✓GSA Schedule pending evaluation
- ✓DCAA Adequate Accounting Practices established (Requesting Pre-Award once GSA Schedule is awarded)
- •ITAR Registration & Technology Control Plan (up for renewal)
- •Establish Board of Advisors
- •Local facility/complex in Huntsville for Research & Innovation (R&I) Division (seeking funding)
- •NIST/CMMC level 2 with Microsoft GCC-High Migration
- •Quality/ISO processes certified
- •FCL Sponsorship

**Not exhaustive*

Capabilities & R&D Project Focus

Our Purpose

Established to bridge critical gaps in the evolution of advanced technologies by anticipating challenges that arise when component-level innovations outpace systems-level integration.

Current & Future Capabilities

- •Research & Analysis*
- •Computational Modeling
- •Proof-of-Concept Development
- •Engineering Design & Development
- •CAD Modeling*
- •Test & Evaluation
- •Technical Advisement*
- •Program Planning & Management*
- •Business & Program Integration*
- •Technical Proposals*
- •Proposal Management*
- •Business Development (A&AS)*
- •Commercialization A&AS

**Currently providing*

Initial R&D Project Focus

A Next-Gen Aerospace Material

Long-Term Conceptual Overview: Develop a next-generation aerospace material in which engineered dislocations function as embedded nanoscale channels to enable sensing, signaling, and state awareness.

(Aligned with NASA's Space Technology Roadmaps & Priorities for 2040)

This approach enables *in situ* signal propagation and dislocation-assisted logic pathways distributed throughout the structural material, transforming the platform's structure itself into an active, multifunctional system.

Jore's Initial Approach to Advancing Aerospace Materials

(Proposal Abstract submitted to AFOSR)

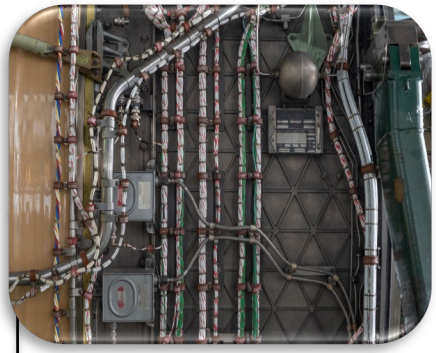
- •Phase One will employ inverse design coupled with active learning. Initial ML-driven screening will map the relationship between desired functionalities and candidate material spaces.
- •Inverse design allows us to begin with performance requirements, charge modulation, defect stability, picosecond–nanosecond signal response, and computationally identify systems capable of achieving them.
- •Evaluation will be grounded in a material–property matrix which integrates structural, electronic, and environmental criteria.
- •Validated DFT, MD, and mesoscale simulations will then probe dislocation behavior, band structure modulation, defect propagation, and stability under mission-relevant conditions: elevated temperatures (≥1500 °C), high-velocity stress, and ionizing radiation flux, etc.

Defining the Problem

Emerging Operational Demands Outpacing Material Capabilities

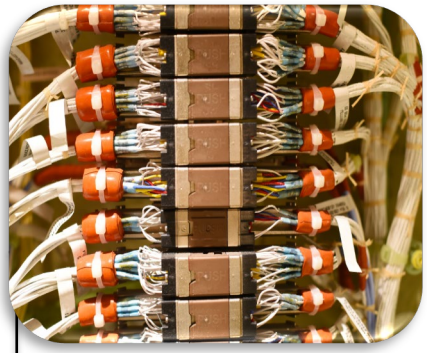
While flight control systems across industry are advancing through quantum and AI/ML technologies to achieve deep space missions, the structural materials of aerospace and defense platforms must also advance structurally *and functionally*; they need to sense, enable computation, and respond in real time.

Siloed Wiring Bundles

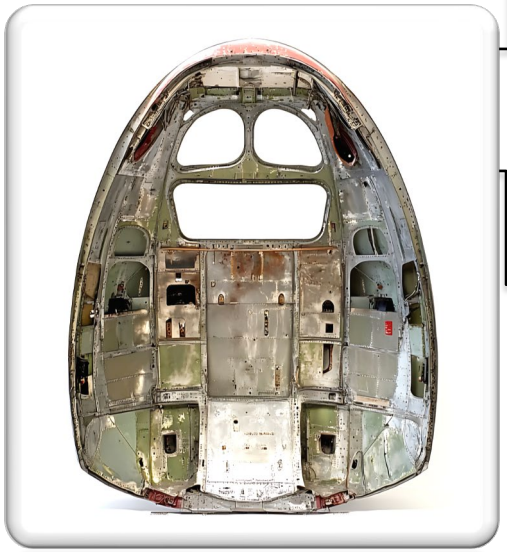


•System architectures are siloed and disconnected: Separate subsystems cause delays, limited *in-situ* decision-making, and reduce mission resilience.

Legacy Wiring Limits Advanced Computation



•Materials and wiring lack the speed and control for quantum/AI-driven systems: Current typical copper wiring bundles induces signal delays (~5–6 ns per meter) and can't dynamically control electron behavior.



Example of Current Airframe Structures

•Legacy materials (superalloys, titanium, ceramics, composites) are structurally strong but functionally inert. They withstand extreme conditions but can't sense or process signals during missions.

•These capability gaps limit platform adaptability under extreme conditions: Radiation, thermal shocks, and mechanical stress demand continuous, localized, real-time response.

-Without materials that integrate sensing and computation, aerospace platforms can't keep pace with the operational demands of next-generation missions.

GSA Schedule
240+ LCATs Offered *(pending eval)*

Program Core Functional Area	Labor Categories Included for SINs: 541690, 541715, 541990
Program/Division Management	Program Management Analyst, IP&S, Program Managers, Program Officers, Program Integration Officer, Chief Innovation Technologist
S&T/R&D	Chemists, Physicists, and Aerospace, Propulsion, Fusion, and Quantum Physicists, R&D Managers, R&D Advisors
Design & Engineering	Design, Experimental, Industrial, Mechanical, Electrical, Software, Chemical, Nuclear, Aerospace, Propulsion, Welding, Manufacturing, Production, & Management
Technical Services & Trades	CAD, CNC, Avionics Technicians, A&P Technicians, Metallurgists, Sheet Metal, Hydraulics, Shielding Technicians, Technical Analysts, Managers
Test & Evaluation	Technical Inspector (TI), NDI, Nondestructive, Shielding Inspectors, Test & Validation Engineers, FE, ME, UAS/UAV Pilot, MTP, ALSE, Senior Safety Officer
Quality	Quality Inspectors, Quality Engineers, Quality Engineering Managers, QA/QC Managers
Admin & Finance	Secretarial, Administrative, Budget Analysts, Administrative Managers
Materials & Supply	Materials Management, Supply Management
IT & Cybersecurity	IT Specialists, INFOSEC Engineers, Management
Business Strategy & Analysis	Intelligence Analysts, Business Analysts, Business Integration, Market Research Analysts, Management
Commercialization	Technology Scouts, Technology Advisors, Regulatory Affairs Compliance Manager, Strategy Consultant, Technology Transfer Specialists, IP Managers

Corporate Leadership's Experience & Hiring Initiatives

Jore Industries is committed to hiring *seasoned* key personnel with both veteran ***and*** industry experience to best serve our federal and prime customers

- Retired US Army and US Navy personnel with SOCOM operational and S&T experience
- Interagency S&T experience: NGIC, DTRA, FBI, DHS, ATF and collaboration with national laboratory SMEs
- Previous corporate and teaming experience with large Primes: Booz Allen, Boeing, CACI & CACI-Wexford, MAG Aerospace, and SNA International

Three-Pillar Talent Strategy- A strategic talent model that prioritizes:

- STEM graduates and SMEs focused on driving advanced technology and systems-integration innovation
- Inclusive talent pipelines for qualified Individuals With Disabilities (IWD)
- High-value Veteran recruitment with industry-aligned experience

Company Hiring Programs:

- IWD Integration & Assistance Program (IIAP)
- Veteran Integration Assistance Program (reviewed by DOL HIRE Vets program)

Future Initiatives:

- E.V.E. Internship Program - Empowered vocational experience for Madison County enrolled high school and college students with diagnosed or suspected autism and/or cognitive or learning disabilities (504/IEP)
- N.E.X.T. Fellowship – for new engineers and scientists focused on advancing technologies

Principle Points of Contact

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