



## MARCH 2020 | NAMC MEMBER SPOTLIGHT

ARCHITECTURE, SECURITY & MODULARITY  
AUTONOMY  
COLLABORATION  
EXTERNAL SYSTEMS  
MOBILITY  
PLATFORMS  
POWERTRAIN  
SURVIVABILITY

DornerWorks, Ltd.  
Micro Systems, Inc.  
Darley Defense  
Eckhart  
Sphere Brake Defense, LLC.  
FPH USA  
Drive System Design, Inc.  
Avittor International Corp.

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NAMC will not alter submitted content.  
Please make sure all information is correct and signed off on by your organization.



## ARCHITECTURE, SECURITY, AND MODULARITY

**POC:** David K. Dorner | [David@DornerWorks.com](mailto:David@DornerWorks.com) | <https://dornerworks.com> |   

### What are your organizational goals?

Our newly updated mission statement for this year is, "We help product makers turn ideas into reality through technology innovation."

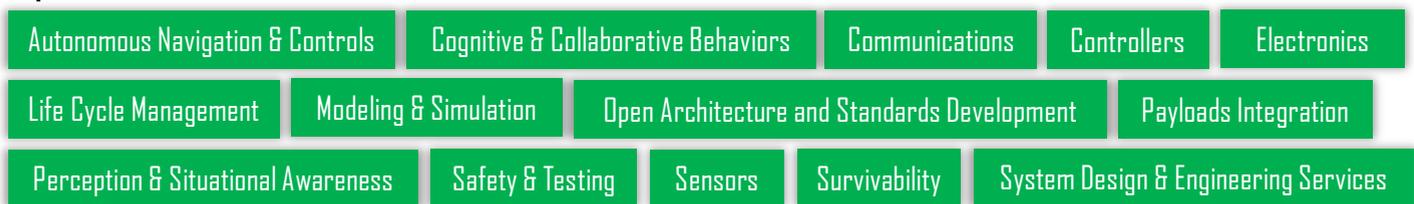
### What do you want other NAMC Members to know about you?

We have expertise in safety critical embedded electronic systems and have supported the MAPS program with a robust deterministic AVB/TSN Ethernet MAF endpoint.

### How did your organization originate?

Our President and founder, David K. Dorner, started the company in his basement 20 years ago! The year 2020 is our 20th anniversary.

### Capabilities:





## AUTONOMY



**MICRO SYSTEMS, INC.** | Fort Walton Beach, FL

**POC:** Maynard Factor | [Maynard.Factor@KratosDefense.com](mailto:Maynard.Factor@KratosDefense.com) | [Kratosdefense.com](http://Kratosdefense.com) |  

**What is something unique about your product or service?**

Micro Systems - Kratos has developed the only fully autonomous truck mounted attenuator (ATMA) or autonomous impact protection vehicle (AIPV) currently on the road.

**Which Government Customer would you like to pitch your organization to?**

U.S. Army

**What do you want other NAMC Members to know about you?**

Micro Systems - Kratos has a wide range of products and solutions in the unmanned ground vehicle segment. In addition, under our parent company (Kratos Defense), we also offer a variety of unmanned aerial vehicle systems and electronic systems.

**Capabilities:**

- C2
- Command and Control
- Command Data Link Transponders
- Flight Termination Systems
- Transponders
- Unmanned Aerial Vehicles
- Unmanned Aerial Vehicle Target Systems
- Unmanned Ground Vehicles
- Unmanned Ground Vehicle Target Systems
- Unmanned Retrofit Kits
- Vehicle Target Systems



## COLLABORATION



**DARLEY DEFENSE, A DIVISION OF W.S. DARLEY CO. | Itasca, IL**

**POC:** Eric Flesvig | [ericflesvig@darley.com](mailto:ericflesvig@darley.com) | [www.darleydefense.com](http://www.darleydefense.com) |   

### **What are your organizational goals?**

To be the most reliable and customer-focused SBA distributor of capabilities to the DOD by integrating technologies from multiple entities to deliver unique solutions to defense-related problems.

### **What is something unique about your product or service?**

Our sales team is comprised of U.S. Military Veterans. We understand the needs of our customers better than anyone because we used to be in their boots.

### **What do you consider your organization's differentiator?**

We maintain and actively seek out new relationships in emerging technologies and with DOD end-users. This provides us the ability to assess and understand current capability needs and/or deficiencies. We leverage those relationships to combined complementary manufacturers' products into new and innovative solutions. Then we guide DOD customers through the contracting process to get those solutions fielded rapidly.

### **Capabilities:**





## EXTERNAL SYSTEMS

# ECKHART

For the life of your line.

**ECKHART** | Deerfield, IL

**POC:** Brian Pesta | [bpesta@eckhartusa.com](mailto:bpesta@eckhartusa.com) | [www.eckhartusa.com](http://www.eckhartusa.com) | [in](#) [f](#)

### What are your organizational goals?

For over 60 years and based in Warren, Michigan, Eckhart designs, builds, & sustains advanced industrial solutions that enhance the quality of life. Our turnkey manufacturing solutions have been enhancing the safety of operators, improving the reliability of production lines, and achieving the highest quality standards.

### What do you want other NAMC Members to know about you?

We like to work with customers that are being tasked with ambitious operational goals, but are maybe light on exactly the best path to arrive at those outcomes. Our Factory of the Future consulting service identifies the top areas in a facility to reduce the role of labor and improve quality. Deliverables in a Factory of the Future workshop include 2-D factory layouts, 3-D simulations, capital investment for implementation, a headcount staffing plan and phase-plan timeline. Improvements to operator safety and comfort are also a top objective.

### What are your teaming goals within NAMC?

We recently joined the NAMC as a newcomer to the Defense and Government Contracting space. We're here to learn as much as we can about the industry, network with experienced companies & individuals, and best understand how to start helping manufacturers improve the life of their line.

### Capabilities:

3D Printed Tooling	Assembly Tooling	Autonomous Guided Vehicles	Communications	Controllers	Electronics
Engineering Services	Human Machine Teaming	Industrial Automation	Life Cycle Management	Manipulation	
Materials	Mobility	Modeling & Simulation	Payloads Integration	Robotic Integration	Safety & Testing
Sensors	System Design & Engineering Services	Validation & Verification	Vehicle & Platform System Integration		
Weld Tooling & Fixture					



## MOBILITY



### SPHERE BRAKE DEFENSE, LLC. | Erie, PA

**POC:** Aaron Lewis | [aaronlewis@spherebrakedefense.com](mailto:aaronlewis@spherebrakedefense.com) | [www.spherebrakes.com/defense](http://www.spherebrakes.com/defense) | [in](#) [f](#) [t](#)

#### **What is something unique about your product or service?**

SBD is developing and certifying the world's first sphere brake for military ground vehicles. Disc and drum brakes were invented at the turn of the 20th century, back when electricity was in its infancy. More than a 110 years later, the sphere brake was invented. A sphere brake uses mechanical, hydraulic, electrical, or pneumatic pressure to apply hemispherical pads against a spherical brake surface in compression. This allows multi-axial brake force generating more torque in a smaller package unlocking unprecedented value to the Department of Defense. How about a brake that doesn't require wheel removal or tools to change brake pads? Reducing weight by more than 50lbs. per wheel-end? or reduced parts to decrease logistic tails into combat? This value is a bolt-on solution to program managers and primes across the DOD.

#### **What do you consider your organization's differentiator?**

We are unlike competitors because we can posture like a large manufacturer while operating lean and small like a startup. We use the build-measure-learn feedback loop to deliver MVPs at a fast pace accelerating product commercialization. Despite operating as a small business, we leverage Earned Value and Schedule reporting to deliver efficient projects and product road maps on time, to cost, and scope. Lean and quality are at the core of all processes. SBD has also been able to scale the brake technology to other platforms quickly and efficiently not just within the DOD, yet in civilian markets like rail, racing, and e-mobility. This complete value package enables our firm the ability to deliver disruptive technology at a competitive price to existing wheel-end technologies in the market.

#### **What are your teaming goals within NAMC?**

SBD would like to partner with NAMC members who are vehicle integrators on new programs forecasted through the USAR and Navy. We are currently executing a Phase II SBIR with Marine Corps Systems Command certifying our brake technology on the MTRV, LVSR, and ACV. We are also going to start an ODA with the Rapid Capabilities and Critical Technologies Office to accelerate certification on two USAR legacy vehicles in 2020. That will validate our brake technology has achieved a TRL and MRL of 8 respectively by the end of 2020 respectively.

#### **Capabilities:**

Life Cycle Management

Mobility

Modeling & Simulation

Powertrain

Safety & Testing

Vehicle & Platform System Integration



## PLATFORMS



### FPH USA | Roseville, MI

**POC:** Jennifer Gould | [jenniferg@fphgroup.com](mailto:jenniferg@fphgroup.com) | [www.fphusa.com](http://www.fphusa.com) |

#### **What is something unique about your product or service?**

FPH USA provides technically advanced engineered products and systems for ground-based vehicles in the defense market. From concept engineering, prototyping validation, and through to production, FPH's focus is to assist our customers in providing the end user the most technically advanced, cost-effective vehicle in the world. FPH is an industry innovator and leader in Light Weighting Technologies and Electric Drive Systems. FPH's Light Weighting technologies utilizing advanced materials and hybrid systems is done completely in-house from R&D, prototyping, composite manufacturing, machining, and paint. FPH's Direct Drive Systems replaced inefficient and outdated motion technologies such as hydraulics and pneumatics. The Direct Drive System not only provides high torque and precision motion but have also been developed specifically to meet the stringent requirements and MIL standards of the defense industry. In addition to these highly engineered products, FPH also has capability in mechanical and hydraulic assemblies. What makes FPH unique is that we have the knowledge and experience to utilize all of these different disciplines in combination (electrical, composite, hydraulic, and mechanical) to offer the government and Primes a complete engineered system.

#### **What do you consider your organization's differentiator?**

As an industry innovator and leader in Light Weighting and Electric Drive Systems, FPH has been able to work with our customers from an initial need (i.e. Light Weighting) and been able to perform complete vehicle audits to identify areas that would benefit from replacement with an advanced composite or hybrid material, providing an improved strength to weight ratio and often cost neutral depending on the geometry. Examples of potential applications for this technology would be any interior or exterior vehicle component that does not require armor-level threat protection, i.e. stowage bins, headlights/taillights, front bumpers, etc. FPH can also identify other areas that can benefit from the Direct Drive Systems to replace traditional drive motors, reducing space claim and weight. Examples of potential applications for this technology would be sight systems, turret/RWS, prop drives, etc.

#### **What are your teaming goals within NAMC?**

FPH's teaming goals through NAMC would be to work with other companies with complimentary technologies and provide light weighting solutions and direct drive systems on upcoming platforms.

#### **Capabilities:**

Advanced Materials

Composites

Electric Drive

Light Weighting

Solutions

Systems



## POWERTRAIN

### DRIVE SYSTEM DESIGN, INC. | Farmington Hills, MI

**POC:** Tony Walsh | [tony.walsh@drivesystemdesign.com](mailto:tony.walsh@drivesystemdesign.com) | [www.drivesystemdesign.us](http://www.drivesystemdesign.us) |  

#### What are your organizational goals?

Drive System Design strives to innovate new technologies within every project whilst decreasing overall development time, which is a central part of the company's culture and values. Designing and optimizing new systems and technologies to elevate customer products, solve problems and delivering truly customized solutions for new or challenging applications across a range of markets are key organizational goals. A central aim to all projects is to act as a strategic technical partner through all phases, allowing a seamless progression of work and the execution of turn-key prototyping within our U.S. technical center.

#### What do you consider your organization's differentiator?

Drive System Design differs from others in the consultancy space by operating based upon an analysis-lead approach to true system-level engineering. By investing in thorough up-front analysis, projects are lead through a more efficient pathway from concept to prototype, resulting in increased speed of execution, reduced development time and products engineered to succeed when deployed to their real-world environment.

#### What are your teaming goals within NAMC?

Drive System Design aims to propel its teaming partners by leveraging our proven capabilities in mechanical design, hydraulic control, software engineering, and electrified power-train development. By doing so we are able to reduce new product development time. In addition we have developed prognostics and health management techniques so our customers are able to monitor their assets and help avoid unscheduled maintenance in the field. We continue to seek opportunities to innovate within the defense marketplace.

#### Capabilities:

Control Systems & Hydraulics

Development & Test

Energy

Mobility

Modeling & Simulation

Powertrain Electrification

System Design and Engineering Services

Transmission & Driveline Engineering

Validation and Verification

Vehicle & Platform System Integration



## SURVIVABILITY



**AVITTOR INTERNATIONAL CORP.** | Bloomfield Hills, MI

**POC:** Anil Sanne | [asanne@avittor.com](mailto:asanne@avittor.com) | 

**What is something unique about your product or service?**

Lightweight armor - 65-70 % weight reduction, proven technology, highly customizable.

**Which Government Customer would you like to pitch your organization to?**

Navy DOD customer using Armor.

**What capability gaps are you able to fill and which industry colleagues would you like to know about them?**

Small, dynamic and agile. New concept development, evaluation and simulation with quick turnaround.

**Capabilities:**

Communications	Controllers	Electronics	Energy	Fuels & Lubes	Lightweight Composite Armor
Materials	Modeling & Simulation	Powertrain	Sensors	Survivability	Suspensions