



OCTOBER 2020 | NAMC MEMBER SPOTLIGHT

ARCHITECTURE, SECURITY, AND MODULARITY
AUTONOMY
MODELING & SIMULATION
PLATFORMS
POWERTRAIN
SURVIVABILITY

[Intellisense Systems, Inc.](#)

[Dataspeed Inc.](#)

[Dynamic Dimension Technologies](#)

[Target Arm Inc.](#)

[Calnetix Technologies](#)

[Engineered Materials Technology, Inc. \(EMTECH\)](#)

Interested in being showcased?
Submit your [form here!](#)

Note:

NAMC will not alter submitted content.

Please make sure all information is correct and signed off on by your organization.



OCTOBER 2020
MEMBER SPOTLIGHT



ARCHITECTURE, SECURITY, AND MODULARITY

Intellisense Systems Inc. | Torrance, CA | Nontraditional

POC: Mark Thompson | mthompson@intellisenseinc.com | www.intellisenseinc.com | 

What is something unique about your product or service?

One of the many unique aspects of our technologies is the ability to fuse multiple capabilities into one product. For example, we fuse EO/IR and our own AI algorithms into our 360 Situational Awareness product.

What do you consider your organization's differentiator?

Our organization's differentiator is the ability to implement cutting edge and innovative technologies born from SBIR topics and transition them to mature TRL products.

What are your teaming goals within NAMC?

Intellisense Systems' teaming goals include partnering with prime vehicle contractors to be part of new and exciting programs such as the NGCV family of vehicles or the FVL platforms.

Capabilities:

Displays

Digital Backbone

Vehicle Architecture

Augmented Intelligence



AUTONOMY

DATASPEED INC. | Rochester Hills, MI | **Nontraditional**

POC: Heidi Bodell | sales@dataspeedinc.com | www.dataspeedinc.com | 

What are your organizational goals?

The autonomous vehicle (AV) industry is currently focused on perception and AI software development. However, in order to implement any autonomous vehicle functionality, there is a basic need - vehicle control. Instead of a driver pressing the pedal or turning the steering wheel, an AV needs the ability to be given action commands electronically, or by-wire. This by-wire system is the base of an AV and enables control over the steering, braking, shifting, and throttle. The Dataspeed By-Wire Kit is designed to alleviate the cost and time-consumption concerns that are presented when attempting to engineer this vehicle control in-house. The Dataspeed By-Wire Kit can be installed within a day, allowing development teams to get up and running quickly on their perception algorithms, sensor, software, or data research. For this reason, both startups and Fortune 500 companies often rely on Dataspeed's many years of expertise in this field.

What do you consider your organization's differentiator?

Companies worldwide trust Dataspeed's safe and reliable autonomous vehicle solutions. Our team of engineers conduct a rigorous amount of research and evaluation prior to the build-out stage of products. Our commitment to safety starts at the design level. The Dataspeed team possesses the interdisciplinary knowledge to do so. With years of research under our belt, combined with various fields of engineering concentrations such as mechanical, electrical, systems, and software, our engineers have the proven expertise for every phase of an autonomous vehicle project. We developed our Drive-by-Wire Kit components to interface with the vehicle in a way that does not compromise the vehicle's already existing safety systems. Whenever possible, we do not utilize additional mechanical actuators, but instead leverage the electromechanical capability of the vehicle's existing actuators. Safety systems such as Anti-Lock Braking (ABS), traction control, stability control, and airbags are left functioning normally. The user can still feel confident that they can rely on the existing safety systems should the need arise. Furthermore, all of our products undergo strenuous End of Line (EOL) testing, where we methodically test connections, features, and firmware to ensure a safe and reliable product.

From root cause analysis, debugging, system recommendations, and initial product walk-through, our team is dedicated to continued customer support during and after vehicle integrations.

What are you most proud of?

Dataspeed's expert engineers developed autonomous vehicle by-wire platforms focused on reliability, safety, and flexibility for a wide variety of applications. Currently, we offer nearly a dozen drive-by-wire platforms: the Ford Fusion/Mondeo, Lincoln MKZ, Chrysler Pacifica, Jeep Grand Cherokee, Ford F-150, Lincoln Nautilus, Ford Ranger, Lincoln Aviator, Polaris GEM, and our newest offering, the Polaris RZR.

We specifically offer the Ford F-150, Ranger, and Polaris RZR for autonomous developers testing in variable weather conditions and rugged environment. Every Dataspeed By-Wire Kit is engineered and assembled in the United States to ensure thorough quality inspections. In addition, each system is constructed of proven, industrial-grade hardware built to withstand complex terrain. These types of platforms are suitable for unmanned ground vehicle development, surveying in rough environments, inclement weather testing, autonomous construction, and mining vehicle development. Additionally, our highly skilled team is capable of integrating a full suite of sensors, autonomous functionality software, and other AV technology for companies looking for a complete research and development driverless platform. Dataspeed is here to partner with you on your autonomous vehicle engineering project.

Capabilities:

Autonomy

Engineering

Integrations

By-Wire

Power Distribution

Software



MODELING AND SIMULATION

DYNAMIC DIMENSION TECHNOLOGIES | Westminster, MD | **Nontraditional**

POC: Karl Leadler | kleadler@dynamicdimensiontechnologies.com | www.dynamicdimensiontechnologies.com | 

What are your organizational goals?

Our goal is to help promote the safe employment of autonomous and robotic systems by providing a trusted virtual environment that support CONOPS, systems development, testing, integration, deployment and in-service support and training.

What is something unique about your product or service?

Our product, VxSIM, supports off-road and surf zone simulations for autonomous amphibious vehicles. This includes physics models for ocean and surf zone with breaking waves, platform hydrodynamics, bathymetry and terrain interactions with various soil types and transitions. Sensor and Platform models can be configured as ROS clients and support agent-to-agent and agent-to-infrastructure data exchange for collaborative missions such as formations maneuvers, leader-follower or swarming.

Our unique framework includes a time control module so simulations can be run in real-time for systems in the loop, faster than real-time for batch and Monte Carlo analyses, or slower than real-time for increased fidelity and detailed design analysis.

What do you consider your organization's differentiator?

Since our focus is on accurately modeling the virtual environment in high-definition, which facilitates accurate sensors, platforms and communications modeling, we will make an excellent partner to help show case and validate autonomy systems' maturity, capabilities and utilization.

Capabilities:

Multi-domain

Simulation

Sensors

Amphibious

Autonomous

Off-road

Surf Zone

Swarming



PLATFORMS

TARGET ARM | Ridgefield, CT | [Nontraditional](#)

POC: Jeffrey McChesney | jmcchesney@targetarm.com | www.targetarm.com | [in](#)

What do you consider your organization's differentiator?

Our device, Tular, enables launch and recovery of both rotary and fixed wing drones from any moving vehicle, autonomously, already at speeds over 65mph, and even during windy conditions.

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

Army NextGen Combat Vehicles, Army SBIR, Army CCDC

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

We can enable UAV capability on every vehicle, either static or moving, including while prosecuting at attack speeds.

Capabilities:

Launch	Recovery	UAV	UAS	Drone	Autonomous	Moving
On-the-move	Device	Platform	Rotary-wing	Fixed-wing		



POWERTRAIN

CALNETIX TECHNOLOGIES | Cerritos, CA | **Nontraditional**

POC: Matthew Farides | mfarides@calnetix.com | www.calnetix.com | [in](#)

What do you consider your organization's differentiator?

Calnetix Technologies specializes in high-performance, high-speed permanent magnet motor-generators, advanced magnetic bearing systems, high-frequency power electronics. Calnetix is a leading supplier of custom motor-generators for OEMs across a wide range of applications and industries. For aerospace applications where light weight is of utmost importance, Calnetix's high-speed machines are designed to provide high efficiency and maximum power density while maintaining low operating expenses.

What are you most proud of?

Calnetix Technologies is a technology driven, end-product oriented company that is proud of its track record for innovation. Innovation in multiple disciplines is driven by our competitive spirit and our significant investment in research and development activities. This has led to numerous patents and technical advancements in our core products that continue to keep us ahead of the competition. After over 20 years of engineering custom solutions for OEMs across over 15 industries, we can proudly say that we have the breadth of industry expertise and product integration capabilities needed to make your project a standout success.

How did your organization originate?

The small team of founders took a leap of faith in launching Calnetix – a startup back in 1998. The four founders left comfortable senior level jobs and enticed early investors to support the start-up. Calnetix's goal was to disrupt the status quo and improve the performance of equipment in specific, challenging industries and applications.

Calnetix was formed to incorporate new technologies into unique industrial systems by partnering with OEMs (Original Equipment Manufacturers). The founders used their knowledge and expertise in aerospace to get started and uncovered opportunities across many industries such as automotive, maritime, and HVAC, which made Calnetix a global leader in our core technologies. Calnetix is leveraging its industrial experience, high speed technologies, aerospace expertise, and rapid turnaround capabilities to meet the requirements in defense and aerospace industry.

Calnetix invests a considerable amount each year in research and development, and this is reflected in our strong cutting-edge technologies and large patent portfolio we now hold which attracts our OEM customers and generates new partnership opportunities. Calnetix has also created subsidiary and affiliate companies, such as Vycon, Access Energy, and Upwing Energy to accelerate development of high-speed solutions for specific markets.

Capabilities:

Permanent Magnet Motors

Electronic Controllers

Power Conversion

Motor Drive

VSD



EMTECH

SURVIVABILITY

ENGINEERED MATERIALS TECHNOLOGY, INC (EMTECH)

Sterling Heights, MI | [Nontraditional](#)

POC: John Hall | jhall@emtechinc.net | www.emtechinc.net

What is something unique about your product or service?

EMTECH specializes in coatings, insulation, gaskets, rubber, laminating, sewing, we also have assembly capabilities as well. We also have some unique insulation technology, that will work better than the standard foam that is inside the cabin. Coatings consist of Polyurea and CARC - the Polyurea will help greatly with corrosion. We can quote Prototypes, Low Rate Production and Full Rate Production, EMTECH is ISO9001:2015 Certified, and ITAR Certified. We are also a Service-Disabled Veteran Owned Small Business.

What do you consider your organization's differentiator?

EMTECH strives at advancing our product line. Our current insulation is UL94V-0 and has an R4/inch. We now offer a proprietary package of insulation that can give an R16/inch. This is done without adding thickness to the material. This works great in HVAC ducts and on water tanks. We are so diverse we can handle multiple pieces of the puzzle to your next project. This is great for limited outsourcing, especially when it comes to prototyping.

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

EMTECH is a well diverse SDVOSB. Come to us for your next project, we would love to help!

Insulation

Sewing

Corrosion Resistance Spray

CARC Painting

Laminating

Gaskets

Blast Mats