

February 2022 news & updates

Parallax Advanced Research

Word from Parallax CEO, Dennis Andersh



It's hard to believe that we're already one month into 2022, and it feels as if time goes by faster and faster with each passing day. That feeling of time flying was especially intensified by the challenges we all faced during the last two years; from COVID sweeping across the planet to lockdowns to the transition of the workplace from physical space to virtual for many businesses, including **our own**. As we are wired to do, however, we adapted and, as a result, we're more resilient.

There were also many positive events that took place from 2020 to 2022. NASA launched its highly anticipated **James Webb Space Telescope that allows scientists to "look much closer to the beginning of time and hunt for the unobserved formation of the first galaxies."** SpaceX, Virgin Galactic, and Blue Origin, which are among the biggest names in the space industry, launched their first-ever all-civilian space flight crews to space.

In our great State of Ohio, we saw an impressive increase in science and technology innovation produced across the state. For example, **the Ohio Federal Research Network**, or OFRN, a program that Parallax manages in collaboration with The Ohio State University and is funded by the Ohio Department of Higher Education, selected **seven novel research and development projects** in which it invested \$8,893,275 to advance unmanned aerial systems, artificial intelligence, human factors, data analytics, space commercialization, and advanced power systems to solve mission-critical national security challenges. These projects also increase innovative collaboration across government, academia, and industry in our state.

Ohio also welcomed the Department of the Air Force's first flying orb program, Agility Prime, to our state, a relationship managed by our colleagues at the Dayton Development Coalition. The program expanded Agility Prime's operations in Ohio to be near the Air Force Research Laboratory, headquartered in Dayton, Ohio, which plays a major role in the program. As a result, Ohio contributed to the launch of the advanced air mobility (AAM) revolution, an industry expected to be worth more than **\$115 billion a year by 2035** and promises to transform how people and goods are transported through novel, cost-effective, electric-powered, and community-accessible air taxis and cargo shuttles. **The Academic Partnership Engagement Experiment**, or APEX, which Parallax manages through a partnership intermediary agreement with the Department of the Air Force, played a key role in the progression of AAM nationwide, by having assisted 38 entrepreneurial organizations with winning 50 Phase I awards worth approximately \$17 million.

At home, within our Dayton community, Parallax's **Launch Dayton** team served 242 entrepreneurs, 61% minority, 52% women, and 12% veteran, in 2020. Also in 2020, Launch Dayton launched the Early Risers Academy, a free, ten-week, cohort-based business class series, and the Launch Dayton Mentor Network, a one-on-one mentoring program designed to help mentees reach a business growth goal, both of which are cornerstone offerings for entrepreneurs across the region who are committed to growing strong companies. Additionally, the MedTech Launch Fund awarded \$400,000 to early-stage MedTech startups to assist with prototype development and regulatory strategy to get innovative medical devices out of the lab and into the hands of doctors and nurses faster.

Parallax's research and development division supported the government's COVID response efforts by working with the Air Force Research Laboratory Autonomy Capability Team 3 (ACT3) to develop **Opera**, a multi-agent artificial intelligence system that simulates pandemic

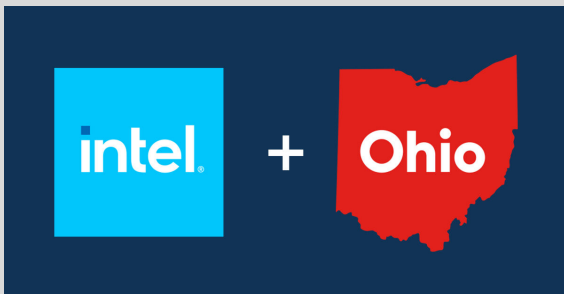
disease and its effects on a population.

Parallax's multidisciplinary research team also secured a \$2 million contract for the **[Multi-Sensor Exploitation for Tactical Autonomy \(META\)](#)** Program under ACT3, to address challenges that face the research, development, assessment, demonstration, and transition of sensing autonomy technologies. You can also look back at some of Parallax's key R&D and science and technology enhancement accomplishments, **[here](#)**.

Also, our company worked with JobsOhio on two massive initiatives that will not only transform Ohio's workforce but also the future of our Nation. These two initiatives include **[\(1\) conceptualizing a vision for Sierra Nevada Corporation to expand their aircraft modernization and maintenance business in Ohio](#)** and **[\(2\) attracting Intel with a \\$2B incentive package to build a chip plant in Ohio](#)**. Our collaborative efforts were extremely effective. The Sierra Nevada's new facilities will soon be located at the Dayton International Airport and will create ~150 new jobs in the region, and Intel's new \$20 billion chipmaking factory will be positioned just outside of Columbus and will help alleviate the global chip shortage and create a new technology hub in the Midwest.

As we continue our journey into 2022, Parallax remains committed to serving our customers with business innovations and technology solutions that we produce through our strategic partnerships and collaborations with government, industry, and academia across Ohio and the Nation. This year, we will reaffirm our role as the most collaborative nonprofit in the US that is focused on advancing the Science of Intelligent Teaming™ and delivering groundbreaking ideas that tackle critical global challenges, and we will speed them to market. We will also persist in building our diverse workforce to help drive our business forward. You can view Parallax careers, **[here](#)**. I'm extremely proud of our accomplishments achieved by both Parallax and our state. Our future is bright, and the stars are the limit.

Featured News



Intel to Build New Factory in Ohio, Enhancing U.S. Competitiveness

Intel is a U.S.-based company and committed to the highest standards of environmental responsibility and sustainability. The new site will be designed and constructed with green building principles, and the new factories have a goal to be powered by 100% renewable electricity, achieve net positive water use, and achieve zero total waste to landfill in support of Intel's 2030 sustainability goals.

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We are a 501(c)(3) nonprofit delivering research, technology, and human and business solutions via The Science of Intelligent Teaming™ to our government, industry, and academic clients in Ohio and the Nation.

We define the The Science of Intelligent Teaming™ as basic and applied research of highly diverse artificial intelligence, machine, and human teams and how they interact and perform with one another.

Together with academia, we accelerate innovation that leads to new breakthroughs. Together with government, we tackle critical global challenges and deliver new solutions. Together with industry, we develop groundbreaking ideas and speed them to market. This is where everything



Parallax Advanced Research Innovator Spotlight: Dustin Dannenhauer

Earlier in November, the innovation team spoke with Dustin Dannenhauer about his work on modeling computer games for AI, and how we can apply what we've learned from complex games to the real world. Dustin is a research scientist in the autonomy and artificial intelligence (AI) unit at Parallax Advanced Research.

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E: parallax@parallaxadvancedresearch.org



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Ohio Federal Research Network (OFRN)



Ohio Federal Research Network
Driving Innovation Through Strategic Partnerships

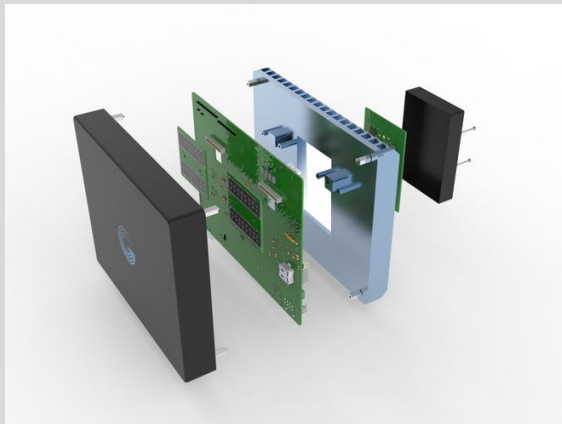


OHIO FEDERAL RESEARCH NETWORK (OFRN) **CLIENT SUCCESS STORY**

An OFRN spinout success story:
YBI spinout innovates and
produces 3D printed
electromagnetic devices

PCG LLC is a Youngstown, Ohio-based small company that produces 3D printed antennas in a range of different metals for use in drones for the Automatic Dependent Surveillance- Broadcast (ADS-B). PCG is a spin out of the Youngstown Business Incubator (YBI)-led geometrically complex 3D printed sensors project that was funded by Ohio Federal Research Network (OFRN).

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Columbus radar technology
startup, GhostWave, meets
military and auto industry pain
points

The story of GhostWave, a Columbus-based high-tech radar system startup, offers a window into the real-life time and effort required to get innovation off the ground. GhostWave launched in 2017 offering a groundbreaking interference-resistant radar system and winning more than \$2 million in contracts. Their path since then involves a combination of pivots—and also drones, bees, artificial intelligence and automotive

OFRN is a State of Ohio-focused research and development program that was established by Parallax and the Ohio Department of Higher Education in 2014.

OFRN's mission is to stimulate Ohio's innovation economy by funding R&D projects that meet federal laboratory requirements and build statewide university and industry collaborations.

OFRN's vision is to be Ohio's go-to solution for creating R&D partnerships among academia, industry and government; driving economic development through innovation; and promoting and expanding Ohio's expanding Ohio's aerospace legacy.

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E: ofrn@parallaxresearch.org



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Launch Dayton

News & Events



Startup to Watch in 2022

As the Launch Dayton startup community continues to grow, we're excited to see what's in store for these companies in the new year!

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Parallax is a founding partner of Launch Dayton: a collaborative entrepreneurial support effort with programmatic roots dating back to 2015.

Parallax's Launch Dayton team supports Dayton Region entrepreneurs by cultivating an easily accessible resource environment, creating high-caliber programming and by building a network of champions, mentors and resource providers that help entrepreneurs succeed.

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[E: audrey.ingram@parallaxresearch.org](mailto:audrey.ingram@parallaxresearch.org)



[Startups](#)

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Flyer Pitch announces 2022 finalists

Eleven finalists have been named across the startup and social venture tracks of the 2022 Flyer Pitch Competition.

The Flyer Pitch Competition is an annual competition sponsored by the University of Dayton's L. William Crotty Center for Entrepreneurial Leadership and the Greater West Dayton Incubator in partnership with PNC Bank and the Entrepreneurs' Center. Now in its 15th year, Flyer Pitch awards

than \$50K in in-kind prizes during the competition.

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Academic Partnership Engagement Experiment (APEX)

News



Ubihere develops artificially intelligent real-time tracking tags and video navigation solutions

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Global Mobile Finance Innovates Money Transfer Mobile App for Africa

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Networking Your Way to the Right Contact, the Difference Between



APEX is a Department of the Air Force (DAF) partnership intermediary program managed by Parallax Advanced Research that cultivates innovation for DAF by expanding the American research enterprise through academic, industry and government collaborations.

The APEX program eliminates barriers in accelerating the transition of science and technology solutions into transformational DAF operational capabilities. The program was established in 2019.

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E: apex@parallaxresearch.org



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SBIR and STTR and Raising the Odds of Successful Entrepreneurship

On this Constellations Podcast, we're going to talk about being an entrepreneur and what tools are available for those unique individuals who want to develop a business relationship with the Department of the Air Force. Today, we have two guests, Dr. Kate Gilpin is the Director of Discovery and Engagement at Parallax Advanced Research and Chris Mather, Senior Consultant.

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Parallax Advanced Research Team

E: parallax@parallaxresearch.org

W: <https://parallaxresearch.org/>



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