



FOR IMMEDIATE RELEASE

Princeton Infrared Technologies, Inc. Selected by AFWERX For SBIR Phase II Contract for Extended Wavelength SWIR

Phase II Contract to focus on the development of extended wavelength SWIR for hyperspectral imaging on unmanned systems

MONMOUTH JUNCTION, NJ – JANUARY 24, 2023 – Princeton Infrared Technologies, Inc. announces it has been selected by AFWERX for a SBIR Phase II contract in the amount of \$749,961 focused on the development of extended wavelength short wave infrared (SWIR) for hyperspectral imaging on unmanned systems to investigate its potential to fill capability gaps in the Department of the Air Force (DAF). Hyperspectral imaging in the (SWIR) wavelength range from 900 to 1700 nm can be used for applications such as agricultural crop health monitoring and humanitarian aid and logistics. Current hyperspectral systems are expensive due to their use of large format arrays and complicated optical components. In this program, a micro-lens array (MLA) will be fabricated directly into the detector array substrate. This novel approach will improve alignment accuracy and structural integrity and is conducive to wafer-scale processing techniques for large volume production at a significantly reduced cost. To enhance the number of material types that can be identified and detected using SWIR hyperspectral imaging, the team will develop and demonstrate imagers with extended wavelength detection capabilities from 900 to 2500 nm utilizing only TEC cooling to support operation. The Air Force Research Laboratory and AFWERX have partnered to streamline the Small Business Innovation Research (SBIR) and Small Business Technology Transfer (STTR) process by accelerating the small business experience through a faster proposal to award timelines, changing the pool of potential applicants by expanding opportunities to small business and losing bureaucratic overhead by continually implementing process improvement changes in contract execution. The DAF began offering 'The Open Topic' SBIR/STTR program in 2018 which expanded the range of innovations the DAF funded and now on May 23, 2022, Princeton Infrared Technologies, Inc. will start its journey to create and provide innovative capabilities that will strengthen the national defense of the United States of America.

About Princeton Infrared Technologies, Inc.

Specialists in indium gallium arsenide (InGaAs) imaging technology, Princeton Infrared Technologies, Inc. focuses on design and manufacture of both shortwave infrared cameras, and one- and two-dimensional imaging arrays. All products are created in the company's fabless environment under strict testing and quality control guidelines, providing innovative and cost-effective detectors that image in the visible, near- and shortwave-infrared wavelengths. Application areas include spectroscopy for sorting materials, moisture detection, thermal imaging, night vision, and laser imaging for military, industrial, and commercial markets.

About AFRL

The Air Force Research Laboratory (AFRL) is the primary scientific research and development center for the Department of the Air Force. AFRL plays an integral role in leading the discovery, development, and integration of affordable warfighting technologies for our air, space, and cyberspace force. With a workforce of more than 11,000 across nine technology areas and 40 other operations across the globe, AFRL provides a diverse portfolio of science and technology ranging from fundamental to advanced research and technology development. For more information, visit: www.afresearchlab.com.

About AFWERX

AFWERX, a program office at the Air Force Research Laboratory (AFRL), connects innovators across government, industry and academia. Through innovation and collaboration with our nation's top subject-matter experts and harnessing the power of ingenuity of internal talent, by expanding technology, talent, and transition partnerships for rapid and affordable commercial and military capability.

Additional information is available at: <https://www.afwerx.com/>.

About AFVentures

AFVentures invests in emerging technologies to scale Department of the Air Force capabilities, strengthening the US industrial base that empowers Airmen and Guardians by incentivizing private, for-profit investment in national security interests. Our success is achieved by connecting novel commercial solutions with defense problem sets, de-risking Airmen and Guardian initiatives to fill capability gaps and transition technologies. Learn more at <https://afwerx.com/afventures-overview/>.

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