

# SBIR Programs




## Precision Sensing, Measurement and Controls

A-Tech Corporation, d.b.a. Applied Technology Associates (ATA), is a privately held small business located in the Sandia Science and Technology Park in Albuquerque, NM. We are a precision measurement, sensing and controls company providing services and products to government and commercial customers. ATA manufactures angular rate sensors, actuators and subsystems used in crash testing, aerospace controls, platform stabilization, vibration and motion measurement, inertial navigation, and line-of-sight imaging systems. Our products and services span ground, air, and space applications. ATA has demonstrated a remarkable ability to transition technology to operational use and commercial products by leveraging internal and government-funded research and development.



**ATA's legacy in the Small Business Innovation Research (SBIR) program dates back to 1986**, just four years after the program commenced. With over fifty Phase I and Phase II programs completed or underway, **ATA is experienced in the SBIR process.** Through the SBIR program, we have obtained many patents and awards as well as the ultimate rewards of commercializing cutting-edge technology and improving our customers' capabilities.

### CURRENT/RECENT SBIR PROGRAMS

SBIR Title	Topic #	Customer	Applications	Product
DRG ARS Single-Axis Sensor (DASS)	MDA07-008 Phase II	Missile Defense Agency	<u>DC to 1000Hz Gyroscope</u> <ul style="list-style-type: none"> <li>IRUs/IMUs for Space, Airborne, and Land</li> <li>Unmanned Autonomous Systems</li> <li>GNC/INS &amp; Image Stabilization Systems</li> </ul>	
Embedded Miniature Motion Imagery Transmitter (EMMIT)	A08-165 Phase II	White Sands Missile Range (WSMR)	<u>Programmable H.264 Image Compression</u> <ul style="list-style-type: none"> <li>Replaces large rack-mount computers currently used for front-end video compression and transmission</li> <li>Expands capability of FIRECAM by allowing installation of digital imaging sensors in a variety of locations</li> </ul>	
Inertially Stabilized Smart Camera (ISSC)	A09-143 Phase I	White Sands Missile Range (WSMR)	<u>High Bandwidth Image Stabilization</u> <ul style="list-style-type: none"> <li>Low dynamic motion environments, typically long standoff, high zoom imaging applications</li> <li>High dynamic motion environments such as those encountered on unmanned ground vehicles</li> </ul>	

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Laser Comm. Optical Motion Mitigation (LCOMM)	AF06-255 Phase II	Air Force Research Laboratory (AFRL) Space Vehicles Directorate	<u>Stabilized Optical Reference (Pseudo-Star)</u> <ul style="list-style-type: none"> <li>• Laser Communication Systems</li> <li>• Acquisition, Tracking, Pointing Systems</li> </ul>	
Accelerometer Assembly Unit (AAU)	AF06-255 Enhancement	Air Force Research Laboratory (AFRL) Space Vehicles Directorate	<u>Spacecraft Precision Delta Velocity Measurement</u> <ul style="list-style-type: none"> <li>• Proximity Operations Spacecraft Maneuvers</li> <li>• Precision Tilt Reference</li> </ul>	
Low Cost Radiation Hardened IMU (RHIMU)	MDA06-046 Phase II	Missile Defense Agency	<u>Inertial Measurement Unit for Space and Kinetic Kill Vehicle Applications</u> <ul style="list-style-type: none"> <li>• Guidance Navigation and Control/Inertial Navigation Systems and Image Stabilization Systems</li> </ul>	
Miniature North Seeking Module (MNSM-M3)	A07-181 Phase II	Army Night Vision Electronic Sensors Directorate (NVESD)	<u>Azimuth Detection in Magnetic Interference/GPS Denial</u> <ul style="list-style-type: none"> <li>• Far Target Location Systems</li> <li>• Laser Target Designator Systems</li> <li>• Antenna Pointing Systems</li> </ul>	
Next Generation Gimbal (NGG)	MDA07-008 Phase II	Missile Defense Agency	<u>Reactionless Gimbal</u> <ul style="list-style-type: none"> <li>• Supply, receive, and store angular momentum</li> <li>• Precisely point and control the optical payload by using angular momentum</li> <li>• Minimize total power consumption of energy during maneuvers</li> <li>• Reduce reaction forces that impact the attitude control system of host vehicle</li> </ul>	
Space Qualified Fast Steering Mirror (SQFSM)	MDA08-011 Phase II	Missile Defense Agency	<u>High Bandwidth Fast Steering Mirror</u> <ul style="list-style-type: none"> <li>• Precision Line-of-Sight Stabilization</li> <li>• Laser Beam Direction</li> <li>• Optical Jitter Removal</li> </ul>	
Tactical Optical Inertial Reference Unit (TIRU)	AF103-016 Phase II	Air Force Research Laboratory (AFRL) Space Vehicles Directorate	<u>Tactical Stabilized Optical Reference (Pseudo-Star)</u> <ul style="list-style-type: none"> <li>• Laser Communication Systems</li> <li>• Acquisition, Tracking, Pointing Systems</li> </ul>	

# Contact Us for Solutions Today!

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