

# Collaborate with Us

Our **concept-to-completion** capabilities allow us to quickly respond to client needs and provide optimal solutions with **shorter turn-around times**.

Having all aspects of technology and engineering in one location allows for experience and knowledge to be shared among members during all stages of our projects.

# About Us

The Technology Application Center (TAC) is a dedicated workspace for accelerating the development of products and solutions through collaboration, rapid prototyping and testing.

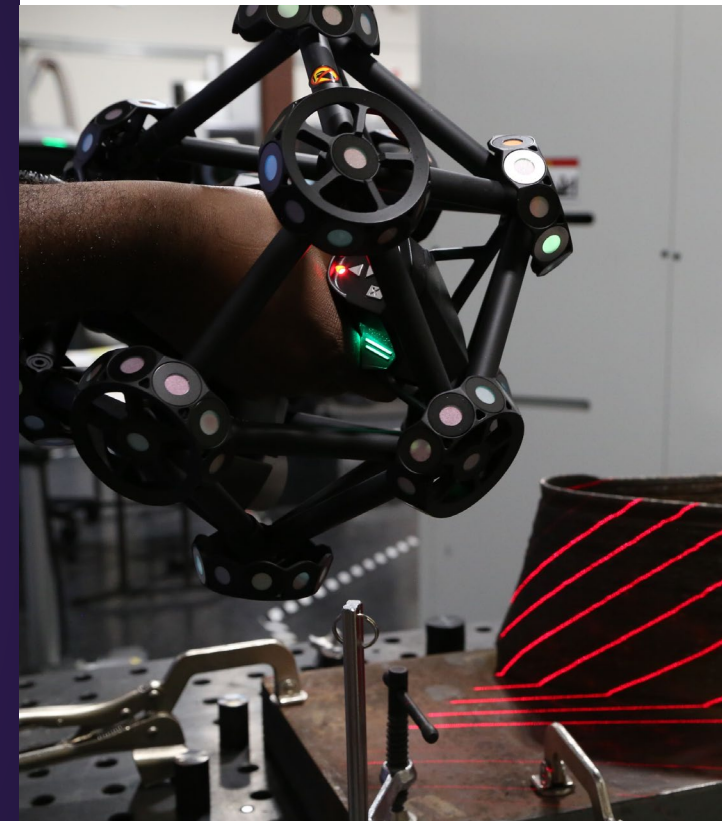
The facility contains collaboration space, robotics, a state-of-the-art machine shop, metal and plastic additive manufacturing, and NDE capabilities.

The TAC is cost-effective engineering that enables faster response, improves safety and productivity, and quickly verifies return on investment.



# Technology Application Center

3D Scanning



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## 3D Scanning

The Technology Application Center houses several different scanning systems ranging from a robotic blue-light scanner to portable hand-held systems. Having this technology in-house allows our team to inspect or qualify any part that is printed or machined in the center.



### Computed Tomography (CT) System

The CT System utilizes a micro-focus x-ray specifically designed to inspect materials or parts for hidden internal flaws. This system can analyze ceramic core or small volumes with extremely high resolution. It outputs a 3D model file which can be combined with an external scan for reverse engineering.

Part size: 16" x 16"

Resolution: 200  $\mu\text{m}$  @ 1 Frame Per Second  
400  $\mu\text{m}$  @ 2 Frames Per Second

Maximum penetrating power of 0.500 – 1.500 steel

### HandySCAN 3D | BLACK Series

The HandySCAN 3D Black Series is a portable metrology-grade scanner that generates high-resolution 3D measurements. It's speed and versatility make it the ideal tool for quality assurance, product development applications, and reverse engineering.

Accuracy of 0.025 mm

Resolution of 0.025 mm

Part size of 0.7 – 20 ft

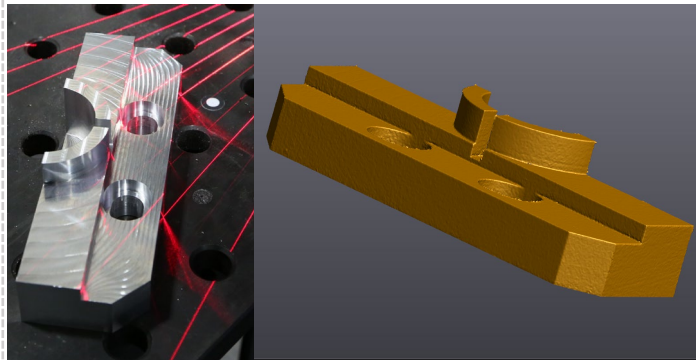
### MetraSCAN 3D

The MetraSCAN 3D portable scanner performs fast and highly accurate measurements. It delivers real-time scans and can withstand floor vibrations or any environmental instability. This technology allows 3D measurements on a variety of complex parts, sizes, materials, and finishes.

Accuracy of 0.025 mm

Resolution of 0.025 mm

Part size of 0.15 – 13 ft



### Automated Blue Light Scanner

Our blue light scanning and photogrammetry system is used to perform high accuracy and non-contact dimensional inspections and can resolve features and dimensions smaller than 1mm; max part envelope 3-meter diameter.

Its capabilities include: Automated high-throughput inspections, part wear, deformation and creep analysis, process qualification, fixture repeatability analysis, statistical process controls, reverse engineering and adaptive machining.

Accuracy of: +/- 0.01mm

Scans: 11 ft x 11 ft

Resolution: Under 0.03mm

### Measurement Templates

Our team develops measurement templates to get all the measurements of a scan automatically.

Once a measurement template is set up, we get results much faster than inspecting parts manually. After set-up, each inspection is as simple and fast as drag-and-drop for automated analysis and reporting.