

# 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.

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# 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: 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: 0.025 mm

Resolution: 0.025 mm

Part size: 0.7 – 20 ft

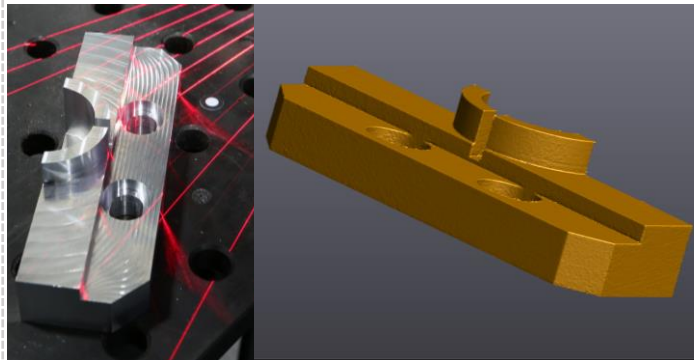
### MetraSCAN 3D

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: 0.025 mm

Resolution: 0.025 mm

Part size: 0.15 – 13 ft



### Automated Blue Light Scanner

Our blue light scan 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: +/- 0.01 mm

Scans: 11 ft x 11 ft

Resolution: Can resolve features and dimensions smaller than 0.4 mm

### 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.