threeRivers 3D
3D imaging solutions

CUSTOM 3D SCANNERS

threeRivers 3D offers the industry's most diverse and flexible 3D scanning platforms. Our unique modular architecture allows us to configure each scanner to meet the needs of a specific application. A wide range of configurations and customizations are possible, making it the ideal solution for end-users and OEMs alike.

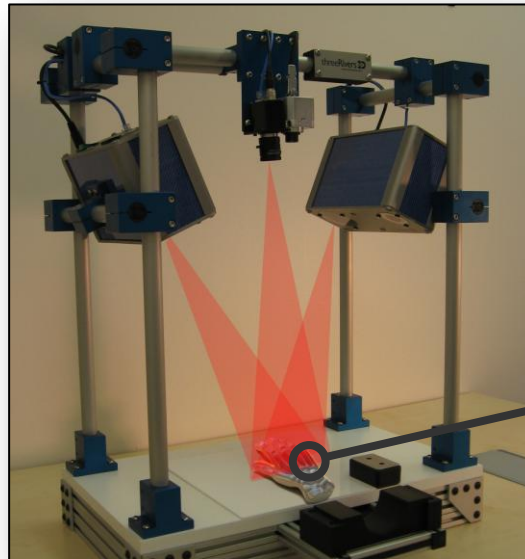## CUSTOM OPTIONS

- **Laser -** Power and frequency

- **Camera** – Resolution and optics

- **Imager** – Color, thermal, infrared, etc.

- **Packaging** – Housed or unhoused

- **Mounting –** Custom framework and fixturing

- **Accessory Integration** – Third party cameras, controllers, PLCs, etc.

- **Scan heads** – native multi-scanner allows for synchronous scanning

- **Operating System** – Compatible with any modern O/S

- **Software** –Custom GUI, user-defined data format, automated data collection and analysis

⌃ **Flexible:** *Custom system (above) with multiple scan heads. Complete high-resolution coverage (inset-zoom) from multiple viewpoints is achieved without moving sample or scanner thereby reducing error and decreasing scan time.*

APPLICATIONS

- Automated Inspection
- Medical Imaging
- Forensics
- Archaeology
- Video Game Design
- Scientific Analysis
- Robotic sensing

⌃ **Outdoor Use:** *Ruggedized, outdoor models for use in ambient sunlight are available*

GRAPHIC ARTS   REVERSE ENGINEERING   CUSTOM SYSTEMS

CUSTOM CONFIGURATIONS

Standard scanners are available in a wide range of sizes and form factors and are easily integrated into OEM systems. In addition, for demanding applications, the core scanner architecture can be enhanced:

➢ Multiple laser projectors and/or multiple imagers can be assembled into a single scanner for higher accuracy, lower noise and greater flexibility

➢ Multiple scanners can be assembled into a machine for multi-view scanning. Multiple scanners may be triggered in serial, or simultaneously for rapid capture

➢ Several core scanning technologies are available including:
   o laser structured light
   o single line laser
   o projector-based white light
   o coordinate arm-based laser head

⚔Powerful: *Custom multi-laser, multi-camera system for use as a mobile robot high resolution sensor.*

⚔ Third Party Integration: *Our open architecture and extensive systems integration capability enables seamless integration with alternate imagers, sensors, etc.*

COLOR & CUSTOM IMAGE CAPTURE

In addition to capturing 3D geometries, threeRivers 3D scanners can also capture color data for reference and to enhance the appearance of captured data.

➢ Captured texture can be edited in any standard photo-editing software

➢ Alternative imagers, such as thermal cameras, UV imagers, specialized optical filters, etc. may be integrated and mapped to the underlying 3D model.

⚔Texture Information: *(from left) non-textured, color, or custom- textured (thermal shown).*