



FARO® Forensic ScanArm Solution

High-Resolution 3D Scanning for Forensic Anthropology and Crime Labs

3D Scanning of Evidence and Artifacts for Forensic Applications

The FARO Forensic ScanArm is a portable, non-contact 3D scanning solution tailored for forensic anthropology, crime lab, and medical examiner applications.

By combining FARO's best-in-class 3D scanning technology with powerful meshing and reconstruction software, the Forensic ScanArm provides a turnkey solution that allows users to scan forensic evidence and artifacts in 3D with greater accuracy, and up to 10 times faster than the time it would take to do so with conventional measurement and photographic methods. The evidence is documented digitally into a 3D model – permanently and safely via non-contact scanning so that the risk of damaging often fragile evidence is minimized. This solution allows the user to piece together forensic evidence into a digital record for the purpose of evidence and artifact recreation, ultimately helping to solve and prosecute crimes. Scan data files may be used to 3D print replications of forensic artifacts that can be used to create compelling courtroom presentations.



Features & Benefits

High-Resolution Data

Features optically-superior blue laser technology to capture highly-detailed and noise-free scan data.

Non-Contact, 3D Scanning and Measurement

Minimizes the risk of damage to fragile forensic artifacts.

Rapid Scanning Speed

Measure and document an object in 3D up to ten times faster versus conventional measurements and photographic methods.

Portable and Maneuverable

Built for convenient use in the anthropology lab, crime lab, and at the desktop. Mountable on a lab table or tripod.

No Targets or Spray Required

Advanced software algorithms enable seamless scanning across challenging artifacts and evidence, without the risk of damage or contamination.

Simple User Interface

Designed for easy operation regardless of skill level or 3D scanning experience.

Hard Probing Capabilities

Utilize both high-resolution 3D scanning and where appropriate, high-precision probing of basic geometry.

Applications

Forensic Anthropology

Forensic evidence and artifacts are often small and fragile. Non-contact, non-destructive scanning allows the user to quickly, accurately, and safely collect digital documentation of the evidence.

3D Printing Replications of Evidence

It is often not practical, legal, advisable or ethical to carry actual artifacts or specimens into the courtroom. Scan data generated by the Forensic ScanArm can be meshed and 3D printed to provide compelling courtroom presentations.

Coroner and Medical Examinations

Time for gathering forensic evidence is limited. The Forensic ScanArm solution allows coroners and medical examiners to quickly digitize traumatic injuries to bones. The data can be analyzed later to identify the victim through facial reconstruction and ultimately aid in solving the crime.

Facial Reconstruction

When coupled with Geomagic® Freeform® software, the Forensic ScanArm solution allows facial reconstruction and modeling to be performed for the purpose of victim identification.

Digital Archiving of Evidence

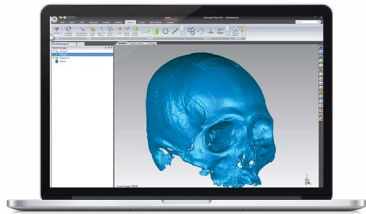
Some cases take years to solve and/or may be reopened as a result of appeals or as new evidence is found. Scan data provides a permanent and accurate 3D digital record of the evidence from which measurements can be taken and analysis can be performed days or even decades later.

Crime Labs

Gather and create digital documentation of evidence and ultimately 3D print for presentation in court and/or teaching.

Software Bundles

The FARO Forensic ScanArm solution is bundled with 3D System's® Geomagic® software.



Software Package	Key Capabilities
Geomagic® Wrap Scan it, Mesh it, Surface it	Geomagic Wrap delivers a powerful toolbox to transform 3D scan data and imported files into 3D models for immediate use downstream. Quickly and easily produce 3D mesh files of scanned data.
Geomagic Freeform®	For forensic anthropology applications, Freeform allows users to perform facial reconstruction analysis using data from cranial scans.

Technical Specifications

System Accuracy:	75µm
Point Capture Rate:	Up to 500K pts/sec
Scan Rate:	300 frames/second, 300 fps x 2,000 points/line = 600,000 points/second
Point Resolution Range:	40-75µm
Depth of Field:	115mm
Probing Precision:	75µm

Hardware Specifications

Operating Temp Range:	10°C - 40°C (50°F - 104°F)
Temperature Rate:	3°C/5 min (5.4°F/5 min max)
Operating Humidity Range:	95%, non-condensing
Power Supply:	Universal worldwide voltage; 100-240VAC; 47/63Hz
Weight:	9.5kg (20.9lb)



Certifications: Meets OSHA requirements, NRTL TUV SUD C-US Listed, Complies with Electronic Code of Federal Regulations 47 CFR PART 15, 17 CFR Parts 240 and 249b – Conflict Material, 21 CFR 1040 Performance standards For Light-Emitting Products, and 10 CFR Part 430 – Department of Energy; Energy Conservation for External Power Supplies.

Complies with the following EC Directives: 93/68/EEC CE Marking; 2014/30/EU Electrical Equipment; 2014/53/EU Radio Equipment Directive; 2011/65/EU RoHS2; 2002/96/EC WEEE; 2006/66/EC WEEE; 2006/66/EC Batteries and Accumulators; 2014/35/EU Low Voltage Directive; 2009/125/EC Ecodesign requirement.

Conforms to the following standards: EN 61010-1:2010 / CSA-C22.2 No. 61010-1; EN 61326-1:2013 EMC; ET^{SI} EN 300 328 V2.1.1; ET^{SI} 301 489-1 V1.9.2; ET^{SI} 301 489-17 V2.2.1; ET^{SI} EN 62311:2008; IEEE 802.11 b/g; FCC Part 15.247 (WLAN and Bluetooth); Japanese Radio Law MPT No. 37 Ordinance (MIC classification WW); UN T1-T8; IEC 62133 2nd ed.; IEC 60825-1:2014 ed3.0; FDA (CDRH) 21 CFR 1040.10 / ANSI Z136.1-2007; EN 50581:2012; 21 CFR 1002 (Records & Reports); 21 CFR 1010 (Performance Standards).

Shock and Vibrations Testing per International Electrotechnical Commission (IEC) Standards: IEC 60068-2-6; IEC 60068-2-64; IEC 60068-2-27

Extreme Temperature Cycling (-20°C to 60°C). Based on: IEC 60068-2-1; MILSTD-810G; ISTA

For more information, call 800.736.0234 or visit www.faro.com
 FARO Technologies, Inc. | 250 Technology Park | Lake Mary, FL 32746

