



HANDHELD 3D SURFACE PROFILOMETER



GELSIGHT

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ABOUT

GELSIGHT MOBILE™ is a Handheld Non-Destructive Elastomeric 3D Surface Profilometer which precisely visualizes and measures the 3D topography of any surface, revealing microscopic structures that are difficult to see under ordinary circumstances. The instrument can be used on any material (Metal ,Glass , Carbon Fiber) or any surface (Reflective , Transparent) regardless of its optical properties due to GelSight's elastomeric sensor.

GELSIGHT MOBILE™ is used to improve quality control processes in aerospace, automotive and many other industries. GelSight's proprietary technology provides extremely detailed and rapid surface measurements through an elastomeric sensor technology invented at the Massachusetts Institute of Technology -USA.

GELSIGHT MOBILE™ can **VISUALIZE AND MEASURE** complete surface details including the measurement of Roughness , Scratches , impact dents , pits, corrosion texture , gaps ,offsets , weld-beads , length ,depth , diameter ,distance area, step height , and much more within seconds with a less than a micron resolution .



Image Sensor: 5 MP Camera
Field of View : 17mm x 14mm
Sensitivity (Depth) : Less than 1 Micron
Depth of Field : ± 1.85mm
Capture Speed : 100ms
3D Data Speed : 3D data available in 3 seconds
Interface : USB 3.0 to Tablet or Laptop
Dimensions : 60mm x 60mm x 220mm
Weight : 600 g
Tablet Included: Microsoft Surface Pro
Software Included: 3D Image Analysis Software
Standard Accessories:
Calibration Target & Hard Case

SPECIFICATION

HOW IT WORKS ?

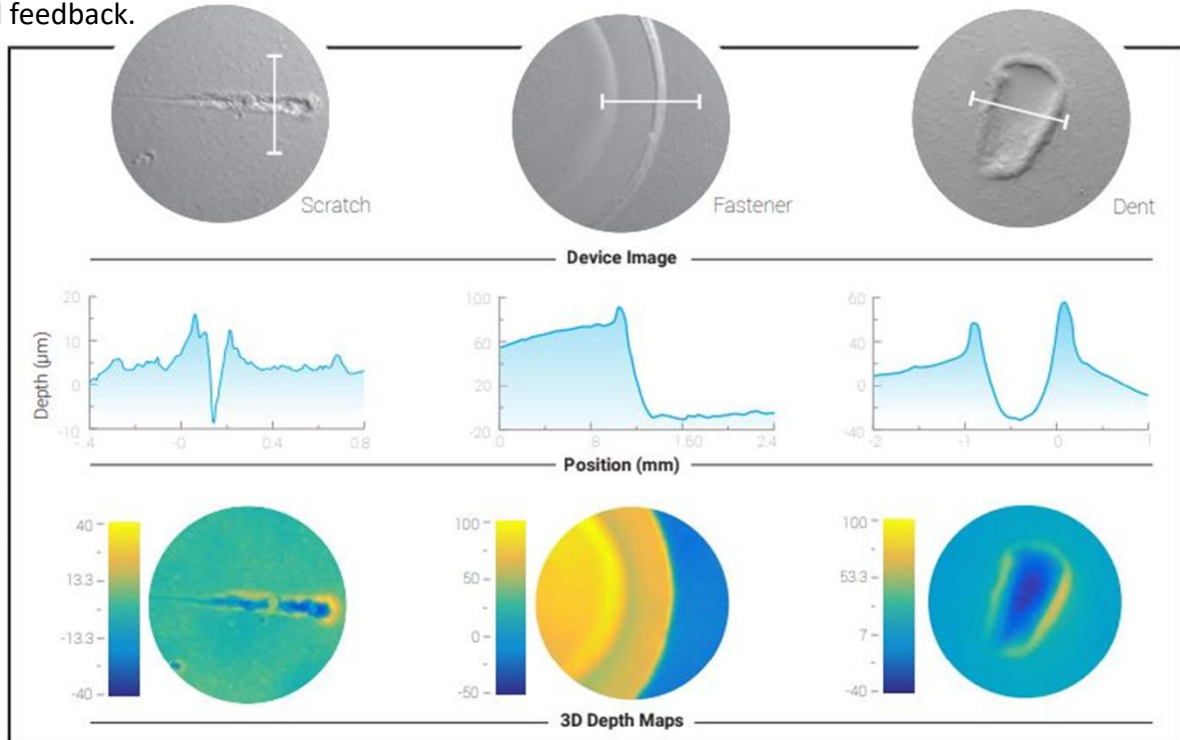
GELSIGHT ELASTOMERIC SENSOR

GelSight Sensor is a Soft , high – resolution tactile sensor similar to human skin. This sensor conforms to the shape of any objects on contact revealing detailed surface features regardless of lighting conditions or material reflectivity, e.g., specularly or translucency.

The surface detail is displayed on contact, giving instant visual feedback.

3D MEASUREMENT

The 3D depth map is calculated from images of the surface, providing position, depth, and other derived surface measurements at a high resolution.



FEATURES

RAPID RESULTS	3D measurements and data file provided within seconds of capture.
HANDHELD	Ergonomic and easy-to-use for immediate data in the field or lab or on the factory floor.
PRECISE	Incredibly detailed and reliable micron-level 3D measurements.
VERSATILE	Measure any material (Metal, Glass, Carbon fiber) or any surface (Reflective, Transparent) .
HIGHLY-ACCURATE	Quantitative 3D data for entire surface vs. 2D Profilometer.
COST-SAVING	Reduces waste/scrap and non-quality costs and capital need for inventory.
IMPROVES	Throughput and productivity for high-cost parts; enhances documentation/audit trail of data for later reference.

AREA OF APPLICATION

AEROSPACE	To inspect more parts of the engine without decommissioning and analyze scratches, surface roughness, corrosion, solder joints and defects.
MRO	To inspect surface defects before and after the maintenance, repair and overhaul.
AUTOMOTIVE INDUSTRY	To inspect of defects in Engine parts , Brake disc analysis, texture analysis, fabric weave, camshaft defects groove fabric analysis and scratches in paint work.
SMARTPHONE MANUFACTURING	To analyze defects on transparent materials such as glass touch screens.
ELECTRONIC INDUSTRY	A unique technology to control precise assembly between parts of different materials (glass, aluminum, plastic).
LEATHER INDUSTRY	To inspect the quality of leather.
TEXTILE INDUSTRY	To inspect the weaving structures of textiles.
MEDICAL EQUIPMENT MANUFACTURING	To analyze transparent components.
FORENSIC	To analyze the fingerprints.
GLASS INDUSTRY	For measuring glasses, components or consumer electronics having high reflectivity.
COUNTERFEIT INVESTIGATION	Verify coins.
MUSEUM	To analyze cultural relics.
RESEARCH & DEVELOPMENT CENTRES	For 3D surface inspection / analysis of any parts .
EDUCATIONAL INSTITUTES	For 3D surface inspection / analysis of any parts.

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