



# 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 ?

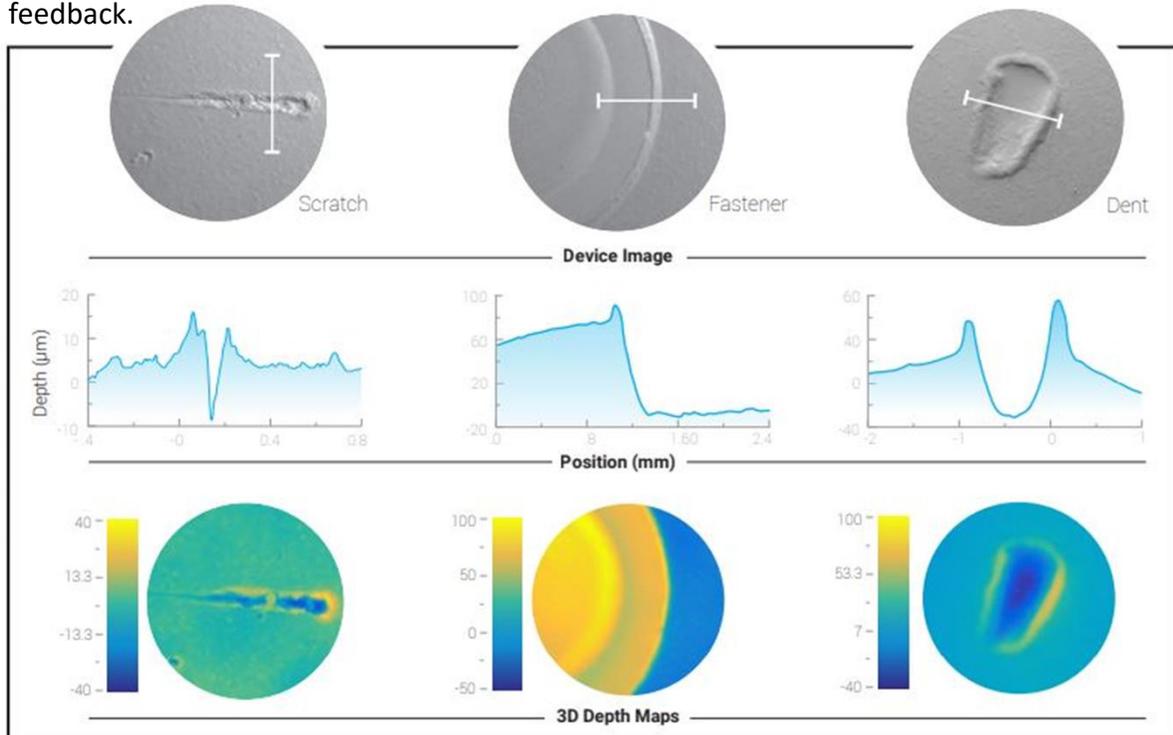
## GELSIGHT ELASTOMERIC SENSOR

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

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

## AREA OF APPLICATION

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

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### METRONIC SERVICES

Since 1993

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