Fast, convenient, and affordable 3D scanning
For a fraction the cost of comparable laser scanners, the MicroScribe digitizer and RSI laser system quickly collects point-cloud data of 3D objects. Where conventional point-and-click digitizing or measurement may take hours or days, laser scanning can produce the same or higher resolution data in minutes. Software transforms point cloud data into polygon data stored in industry-standard file formats. Polygons are sufficient for many applications including rendering and visualization, rapid prototyping, and physical analysis.

In addition to being fast, the MicroScribe laser solution is lightweight, compact, and convenient. It is just 6-inches square (15 cm) and weighs about 15 pounds (7 kg). The scanner controller is palm-sized, not a big and bulky box as with most other scanning lasers.

Highlights
- Fits 6DOF MicroScribe systems
- Dramatically reduces digitizing time
- Includes software for transforming point-cloud data into industry-standard formats
- Supplies compact portability and easy setup and use
- Costs far less than most comparable laser systems

More Info: microScribe.ghost3d.com

Easy to use
A MicroScribe digitizer with a 6DOF touch probe is needed to maneuver the laser for data capture. Instead of point-and-click, data collection is more like spray painting, with the laser collecting up to 28,000 points per second.

As you sweep the laser to profile the surface, captured points appear in real-time within MicroScan Tools software, allowing you to see where point density should be increased. You can switch from the long to the short laser line to increase density and better resolve high curvature regions. The system lets you efficiently digitize parts of even great complexity and size.
High-resolution data of complex parts
As nothing touches the model during data collection, the laser scanner is also particularly useful for very small, deflectable, delicate, or complex parts, and parts with holes that may be too small for a touch probe to accurately digitize. Using a touch probe alone to digitize delicate or complex parts can be tedious, time-consuming, or even impossible, but the laser solution can very quickly and easily provide high resolution 3D data without touching the part or model.

Convenient and powerful MicroScan Tools Software
Whenever you reposition the model to scan another of its surfaces, you create a new scan file. Laser and MicroScribe system outputs are synchronized and transferred to MicroScan Tools software for real-time visualization and subsequent processing. This includes discrete point-and-click measurements that can better capture sharp edges or corners. The software processes the scanned raw data, performing much of the necessary cleanup for noise reduction and hole filling, triangulation, registration, decimation, and merging of the files to provide a unified data set.

High accuracy
With a point density of around 0.0039-inch (0.1 mm), RSI's laser can capture objects with a high level of detail. Because the point cloud contains an equal distribution of points lying above and below the ideal surface, the quality of the final surface is determined by the post-processing software and the statistics of the measurement process rather than the scanner's tolerance or the digitizer's accuracy. The software uses sophisticated algorithms to align the scanned profiles, which themselves have a higher accuracy than the traditional MicroScribe system utilizing a touch probe. As a result, overall system accuracy and resolution equals or exceeds that of the MicroScribe touch probe system.

Software compatible
RSI laser-scanned data is compatible with almost every software application supporting point or polygon import. Many third-party software programs can be used to transform the data into CAD-editable formats for manipulation or analysis, such as a comparison between a laser-scanned first manufactured article and the original CAD design.