



RAPID PROTOTYPING & MANUFACTURING

FARO Laser ScanArm Increases Productivity, Accuracy, & Customer Base for Harvest Technologies

PROBLEM:

Harvest Technologies (harvest-tech.com), based in Belton, Texas, provides rapid prototyping and manufacturing for a wide range of industries, including oil and gas, automotive, medical, consumer goods, power tools, and aerospace. Rapid prototyping (RP) uses a technological process to produce complex 3-D objects in a short period of time, usually days rather than weeks.

Tight tolerances are a must and capturing the complex contour measurements of various prototypes created difficulties for Harvest. For simple box dimensions with XYZ coordinates, analog calipers would suffice. For more complex measurements, calipers couldn't adequately perform the task, created guesswork, human error, and inconsistent results.

Harvest needed a better solution to answer their customers' needs.

SOLUTION:

Harvest discovered FARO thanks to one of their customers, and it quickly became their first-choice solution when they learned of its advanced technology. They chose the ScanArm for its ability to capture high end surface measurements and its ability to take fine point measurements for use in stereolithography (STL) files. With up to 19,200 points per second, the ScanArm quickly solved the problems created by complex objects and naturally tied into the rapid prototyping process.

The FARO Laser ScanArm allows Harvest to scan complex contours and place them into a CAD model using Geomagic software. Tolerances are verified when the scanned prototypes are compared to an original 3-D model, performing infallible first article and CAD-to-part inspections. Eliminating human error, the high accuracy measurements are backed by custom reporting that is required by many of their customers.

ROI:

What used to take days, now takes only hours with the FARO Laser ScanArm. Products are created in less time, more cost effectively, and without the waste caused by human error. Parts can now be measured in-house with accuracy and consistency, and deviations are caught with the very first part – not after creating piles of scrap during a faulty production run – and, more importantly, before a part is ever sent to a customer.

FARO's technology was easily implemented at Harvest and empowered them to move into additional industries and markets. They have even more confidence in their ability to offer top quality while providing the best "bang for the buck" value to their customers thanks to the FARO Laser ScanArm.

"It's a great tool – well worth its weight in gold." — Jason Morgan, Stereolithography Production Manager at Harvest Technologies



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