



**PRR Engineering Solution**

**PRRENS** Passion • Responsible • Reliable

## Simplifying Design



Our **Design** Solution & Services that work for  
your product needs



TECHNOLOGALLY ADVANEC D PRODUCT DESIGN SOLUTION & SERVICES PROVIDES  
A TOTAL END TO END SOLUTION

We PRRENS have more than one million Man hours expertise in Computer Aided Design tools i.e. Solid works, Uni-graphics and many more. Our team of Qualified Engineers can lead and assist our customers to upgrade their old files into latest CAD packages.

## COMPUTER AIDED DESIGN

Our capabilities in CAD span Turbo-machinery, Aerospace, Automotive, Industrial products and Furniture for home and office domains.

- Parametric and non-parametric 3D - modelling.
- Surface modelling of turbo-machinery blades and aerospace structures.
- Free form and Sketch based parametric modelling.
- Casting, forging and machining models
- Design for manufacturing and Assembly (DFMA)
- Creation of Bill of Materials



## DETAILED ENGINEERING

PRRENS team is abreast and adept with the latest CAD tools such as Solid Works, Unigraphics, Pro-E Creo and AutoCAD, permitting us to offer comprehensive CAD design solutions like...

- Detailed design of components & assemblies
- GD&T and Tolerance Stack-Up
- Generation of exploded and sectional views
- Creation of Bill of Materials

## MANUFACTURING SOLUTIONS

With complete design engineering capabilities, from product and process design through initial production, we deliver cost-effective and manufacturable solutions.

Our competencies are...

- Tool Design  
(Press Tools, Mould Tools, PDC & Pattern & Core Box)
- Design of Jigs & Fixture
- Prototyping & Tool Path Generation

## VALUE ENGINEERING

- Product Concept, Assembly Process Re-design
- Material Substitution & Weight Reduction
- Process Conversion, Space Optimization
- Parts Standardization, Integration / Reduction

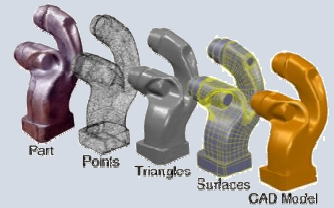
## REVERSE ENGINEERING

We, at PRRENS, understand the criticality of maintaining and reusing engineering data. Through our vast experience in handling these requirements, Our team is well equipped with all the latest technology know-how like laser scanning, CMM, STL data handling.

Our competencies are...

### We migrate the following

- Tear down & Reverse engineering
- Convert the Hand Sketch drawings to 2D CAD drawings / 3D models.
- Convert the Point cloud data from CMM / Laser scan into 2D surface / 3D models.



## DESIGN RESOURCES @ OUR ROOF

The FARO Edge Scan Arm ES is the latest advancement in FARO's Laser Line Probe product line and features Enhanced Scanning Technology (EST). EST is the combination of multiple hardware and software improvements such as the High Dynamic Range (HDR) mode designed to boost performance by improving the ability to scan challenging surfaces including high contrasting colors simultaneously.

### FARO Laser Line Probe Specifications

Accuracy	: $\pm 35\mu\text{m}$
Repeatability	: $35\mu\text{m}$ , $2\sigma$
Scan width	: Near field 53mm Far field 90mm
Points per line	: 752 points/line
Scan rate	: 45,120 points/sec.
Laser	: 660nm, CDRH Class II/IEC Class 2M

### Contact Probe Specifications

Model (Measuring Range)	: Edge 1.8 m (6 ft)7Axis
Single Point Repeatability	: $24\mu\text{m}$
Volumetric Accuracy	: $\pm 0.034\text{ mm}$ ( $\pm 0.0013\text{ in.}$ )

**Software** : Solid works Premium 2014, Autodesk - AutoCAD LT 2015  
CAM 2 Measure 10 Full Version

### Faro Edge Arm (6ft) 7Axis with V4 Laser Scanner for Reverse Engineering & Inspection



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