



**Product Line: Re-Design of 3D CAD Model from Poor Scanned Image.**

**Objectives:**

Re-Designing of a part based on older designs and to manufacture spare parts using new machine tools.

**Issues:**

- Poor scanning resolution
- Poor quality of hardcopy drawings
- Multiple sheets because of scanner restrictions
- Duplicate and overlapping edges
- Breakup of entities
- Incorrect scale factor
- Ambiguous dimensions

**Project Methodology:**

- Models must be fully parametric and feature-based Pro/E (wildfire.2)
- Must have associative 2D drawing with dimensioning
- Material and surface finish to be identified in 3D and 2D
- Layers, colors, file names to be assigned
- Notes and non-geometric information on 2D
- Conformance to customer standards

**Benefits:**

- Lower costs in procuring and manufacturing parts by providing supplier with CAD data, which they can use directly.
- Productivity improvements over manual conversion approaches.
- Cost and time savings made by moving to 3D Modeling approach