



NeoMetrix  
Technologies, Inc.

# Tech Brief 01-05-009

## Reverse Engineering Can Opener



Figure 1 – Original Part

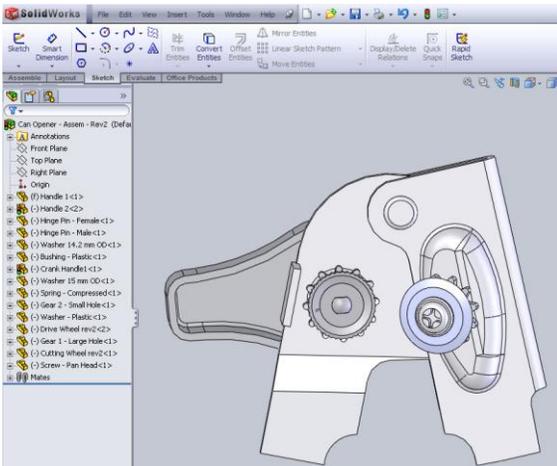


Figure 2 – Solidworks Assembly Model

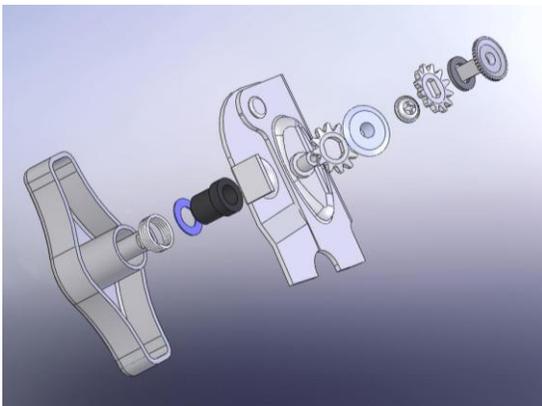


Figure 3 – Exploded View

### Problem:

Lifetime Hoan was interested in updating the design of one of their manual can openers (Figure 1), however there were no drawings of the existing parts.

### Traditional Method:

Hand measurements are normally used to pull off dimensions and radiuses. However, the complex shapes and angles were not features that could be accurately measured by hand.

### NeoMetrix Solution:

- Laser scan each component with Konica-Minolta Range 7 Scanner
- Rapidform XOR used to align and merge multiple scans
- Each component solid modeled based upon scanned data.
- All parts transferred to Solidworks for inclusion in final assembly. (Figure 2)

### NeoMetrix Advantage:

- Complex geometry accurately captured
- Quick turnaround time
- 100% Editable Solidworks part file to make future design changes
- Ability to make a 3D print to check fit parts to existing mates (Figure 3)