1. Porous and oil-soaked aluminum heat exchanger from a 1907 White steam car.

2. Measuring the size and shape by capturing 50,000 points/second with laser scanning.

3. The automatic alignment of multiple scans is made possible by indexing the turntable.

4. Viewing the automatic alignment of multiple scans.

5. 3D mesh model of the original prototype, built in NextEngine’s ScanStudio HD software.


7. The idealized solid model in RapidWorks with full feature tree.

8. Modified in RapidWorks, saved as STL for printing casting patterns with a Dimension 3D printer.

9. Sand-cast aluminum halves shown next to ABS plastic patterns.

10. Illustration of a 1907 White steam car.