

# Tesla Inc.

Tesla is an electric car design and manufacturer founded by the entrepreneur Elon Musk. Based in Palo Alto California, Tesla has evolved from a high performance sports car to a general-purpose mass-produced manufacturer in less than 10 years. Tesla also invest in battery technology and a high degree of on-board tech including many self-drive features.

Tesla is named after the famous Serbian electrical engineer and physicist, Nikola Tesla.



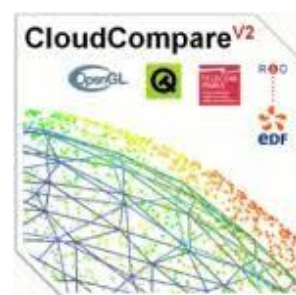
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## DotProduct Tesla Car Body Scan



The Tesla model was scanned using the **DotProduct** DPI-8X handheld 3D scanner. The scanner acquired a 3D point cloud with range and color information, stitching together a continuous sweep by hand motion over Tesla car body.

The point cloud was then processed by with CloudCompare, using experimental research methods to reconstruct a geometric surface model for this example.



**CloudCompare** is an open-source 3D point cloud (and triangular mesh) processing software application. It is designed to perform comparison between two dense 3D points clouds (such as the ones acquired with a laser scanner) or between a point cloud and a triangular mesh. Technically, it employs an "octree" hierarchical binary subdivision structure dedicated to this task.

CloudCompare enables experiments, research and exploration into new algorithms, methods and work-flows, providing a bridge between academic research and commercial production point cloud meshing systems.

Once exported to PLY model file type, the **PDF3D ReportGen** from Visual Technology Services transforms the model into a 3D dynamic view inside of

a PDF document. The 85Mb PLY file is converted to a much smaller 7Mb PDF. Using the Adobe Reader or similar 3D PDF enabled viewer mouse pan, zoom is available in a special illustration view-port inside the MS-Word designed document page.

Left mouse button moves around, while right mouse (or Shift-Mouse on Mac) zooms. For more information see:

- DotProduct** <https://www.dotproduct3d.com>
- CloudCompare** <http://www.cloudcompare.org>
- PDF3D** <https://www.pdf3d.com>

