

### 3D Inspection of New Energy Automobile

Recently, automobile is a hot topic. With Lei Jun invested RMB 10 billion CNY to make cars, Didi launched a car-making project, and LG set foot in the automobile industry, it seems that ICT companies will fall behind if they don't venture into the automobile industry. Although it doesn't make cars, SCANTECH has mastered digital technology which can provide perfect [3D solutions](#) for the entire automobile manufacturing process of automobile manufacturing enterprises.



Currently, under the fierce market environment, automobile manufacturers are facing great challenges. How to accelerate the launch of products and to control quality, directly affects the production cost and general profitability. The 3D smart testing technology of SCANTECH has a positive influence on four stages in the entire product life cycle management of the automobile industry, including **concept, engineering design, manufacturing and subsequent maintenance**.

3D digitization is a hard technology with a high technical threshold. As of its establishment, SCANTECH has tackled many key difficulties. With its smart testing quality standing shoulder to shoulder with overseas giants, it successively provides professional 3D digital solutions for domestic and overseas famous manufacturers like BMW, Volkswagen, Land-Rover, BYD, SAIC and FAW.

SCANTECH launched the SIMSCAN 3D scanner globally on March 31, which quickly makes a figure in the automobile industry. This palm-size scanner not only is small, but also has high precision and quick scanning speed. Now, let's check the performance of SIMSCAN together.

Scanning target: Tesla

Target characteristics:

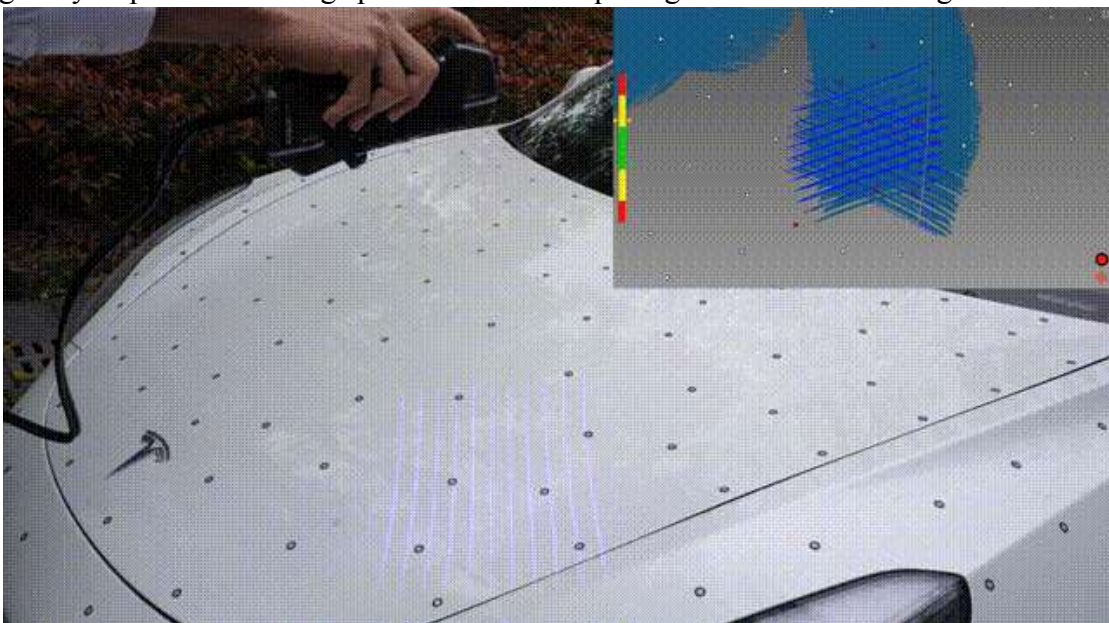
1. Large size: for large assemblies like cars, the scanning width and speed are important considerations for selecting a 3D scanner. A small scanning width means it is required to combine partial data for multiple times to get an overall situation, leading to relatively big accumulative error; in the meanwhile, scanning width and speed will directly affect working efficiency.

2. High precision requirement: high-precision industrial products like cars has a high precision requirement for the scanner. Higher precision means the digitized model is more like the real object and more beneficial for subsequent analysis and research.

3. Complicated structure: automobile scanning involves not only the car body, but also small components like interiors, seats, instrument board and seating system, as well as key components like engine, transmission, and steering structure. In view of the complicated structure, whether the scanner can reach complicated positions like curved surface, deep hole or dead angle, and whether it can work under the black surface will affect the results of scanning.



Car body scanning: it takes about **25 minutes** to scan the entire vehicle. This result is very surprising, mainly thanks to the high performance of SIMSCAN. With 22 crossed blue laser rays, and a speed of 2,020,000 times of measurement per second, it greatly improves scanning speed and realizes quick generation of a 3D digital model.



Interior scanning:

SIMSCAN: Net weight 570g, dimension 203 mm × 80mm × 44 mm, compact and flexible, able to scan and measure neatly within the narrow interior space of Tesla. SIMSCAN has multiple scanning modes, including quick scanning, fine scanning, and deep-hole scanning, which are able to fulfill high-precision scanning work under different working conditions. This small SIMSCAN has an accuracy of **0.020mm**, making it a good choice for industries with a high precision requirement like the automobile industry.

