Project Summary of

Chevrolet Bolt EV

MATODATAS Annual Key Vehicle V1.0

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01
Project Introduction

Project Introduction of Bolt EV

Shanghai

Headquarters of MATODATAS， project plan，3D model, report making

California

Purchase, scan, teardown, registration in Detroit, joint sales agreement with Munro

Fukuoka

Technical support for new energy technology research, material testing, etc.

Germany

European automotive industry, multi-level business cooperation, data support

Basic Information of Bolt

Battery Capacity

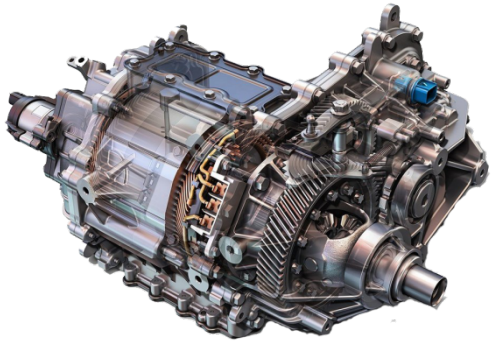
Range

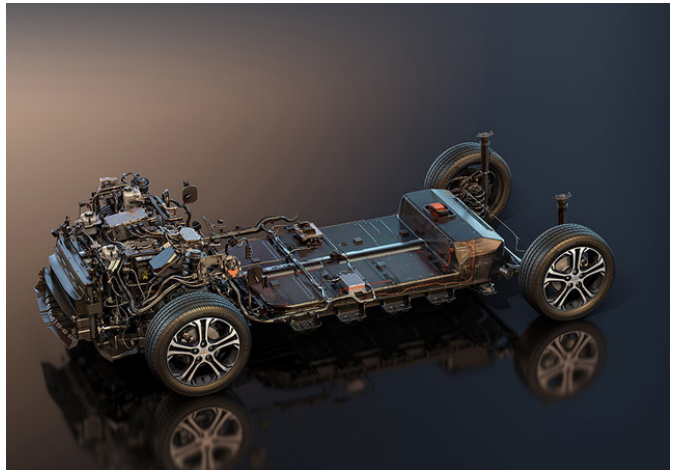
Curb Weight

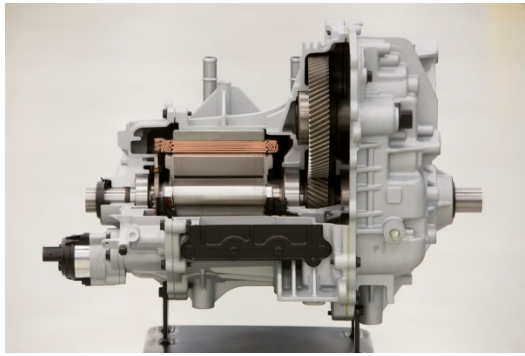
60 kWh

383km

1625 kg







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Bolt EV

60 kWh

2017.03 California

383km

01

In March , 2017 we bought Bolt EV in North America and dismantled it in California.

02

Curb Weight	1625kg
Length Width Height	4170/1770/1600mm
Wheelbase	2600mm

03

Range	383km
Top Speed	225 km/h
Acceleration 0-96km/h	6.3s
Power	203 ps

04

Battery capacity	60 kWh
Nominal voltage	350V
Battery weight	435kg (23% of all)
Battery system volume	285L
Volume energy density	208Wh / L
Mass energy density	136Wh / kg

05

Permanent Magnet Motor
The maximum output power is 150 kW
The maximum torque is 360 N m
It consists of 288 "flake" LG lithium batteries with nominal capacity of 55 Ah, nominal voltage of 3.75 V and system power of 59.4 kWh (288 *55 Ah *3.75 V). The cooling effect is good. The temperature difference of each batteries is controlled at 2 degrees Celsius in winter. The batteries are generally guaranteed for 8 years or 100,000 miles.

02

Project Progress

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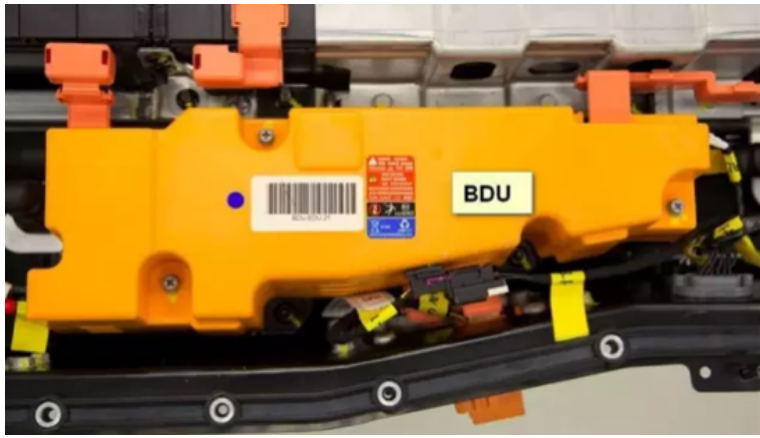
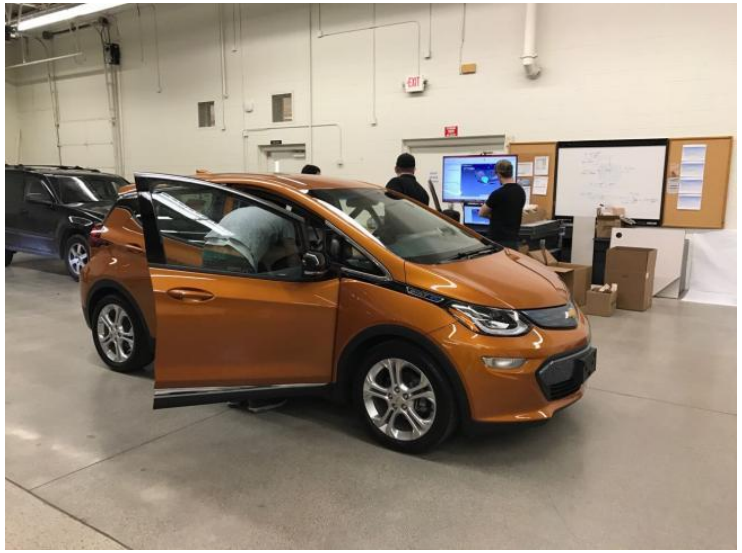
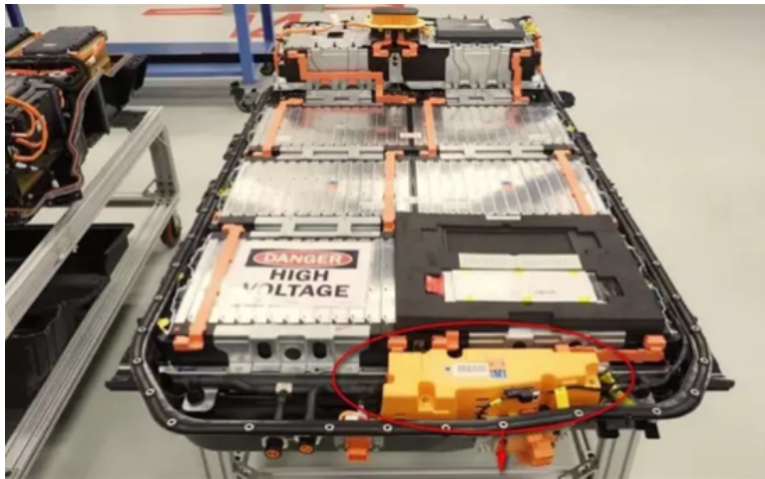
Teardown

in California

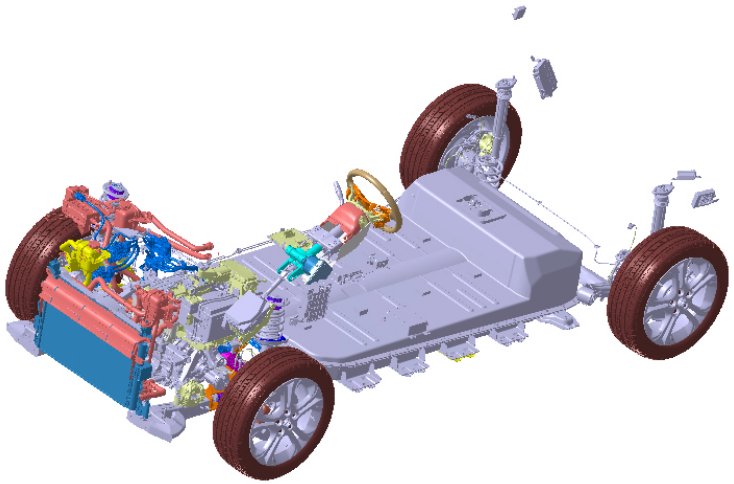






03
3D Model & Point Cloud

3D Model



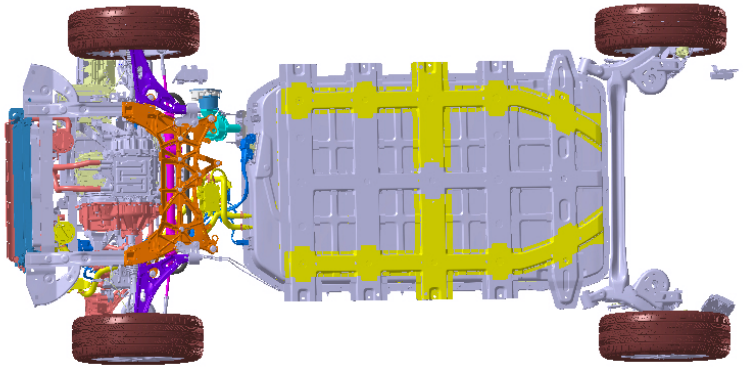
Data Accuracy Requirements

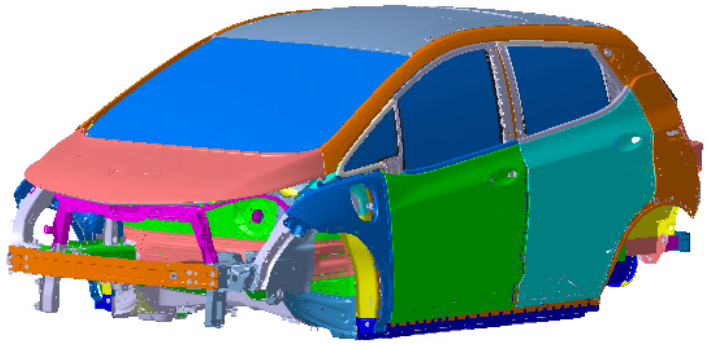
◆Chassis, BIW, interior and exterior to meet the requirements of mold opening (black box / grey box external contour)

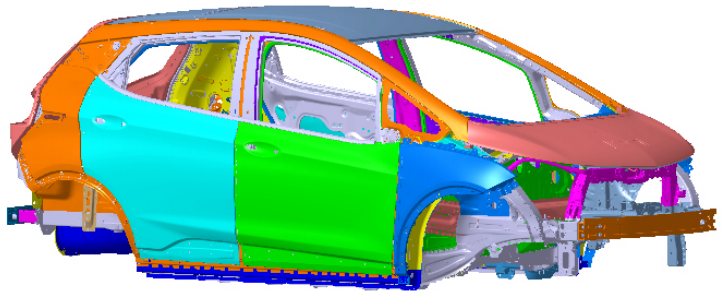
◆The accuracy of point cloud and data is below 0.5mm.

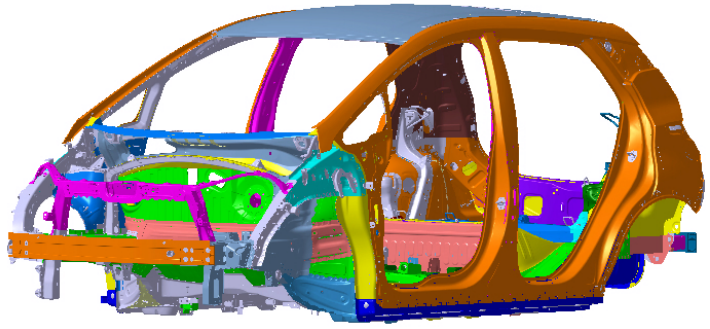
◆The contour accuracy is controlled below 1mm.

◆The key parts' holes and hard points accuracy are controlled in 0.2mm (Annex).

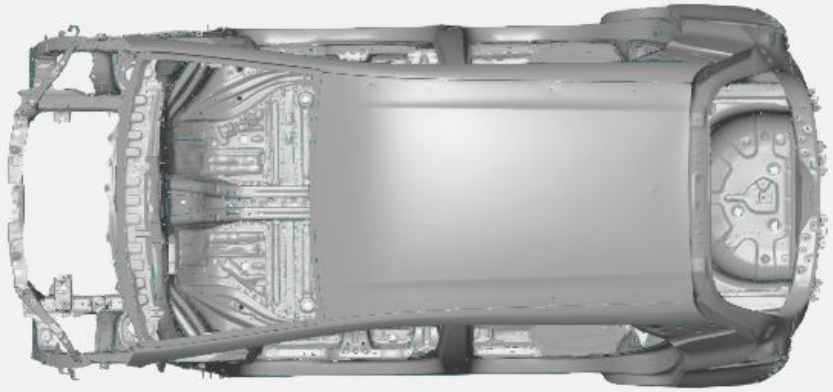


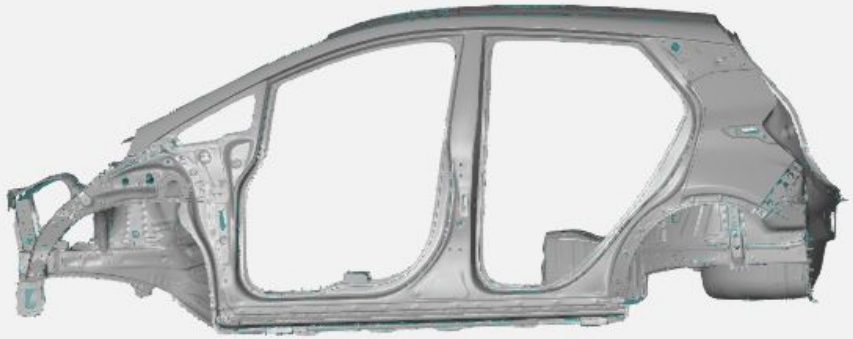


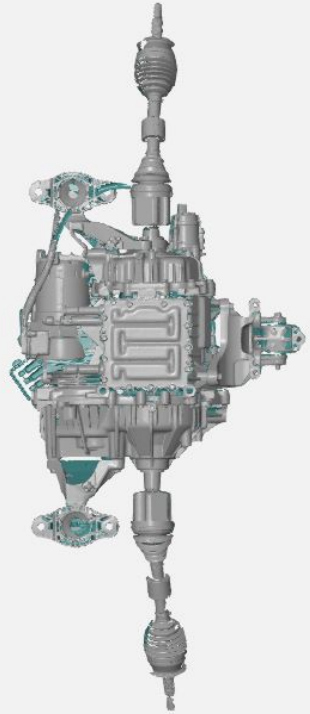


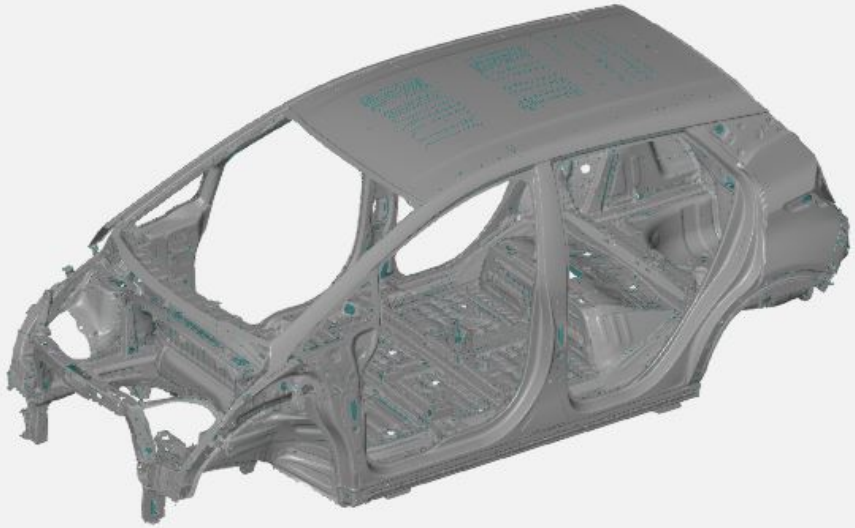


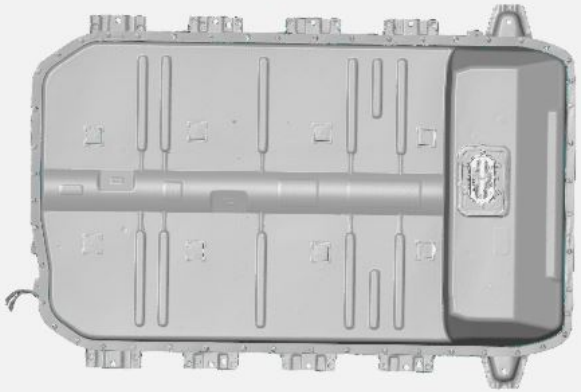
Point Cloud

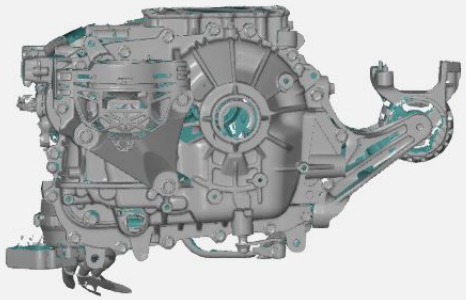








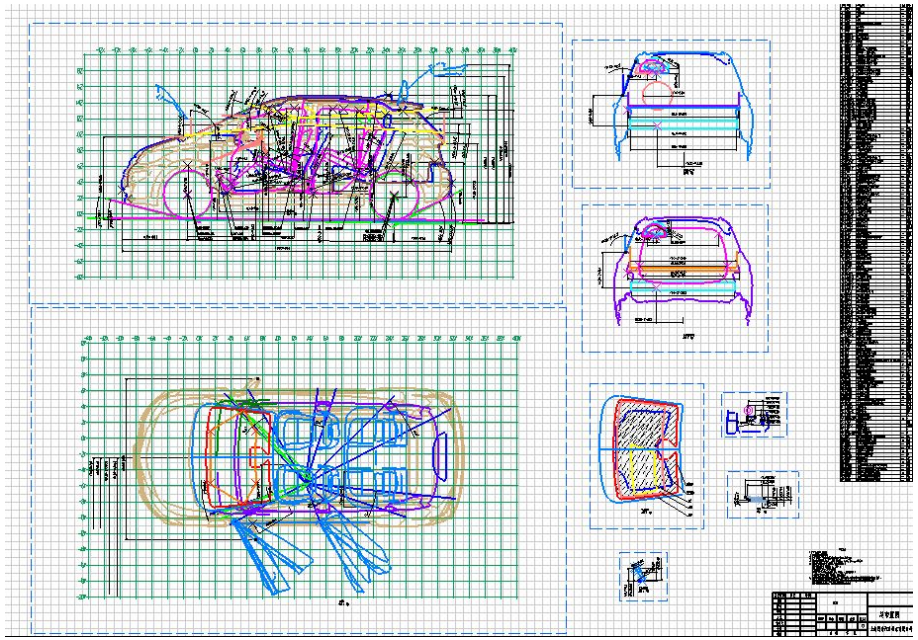


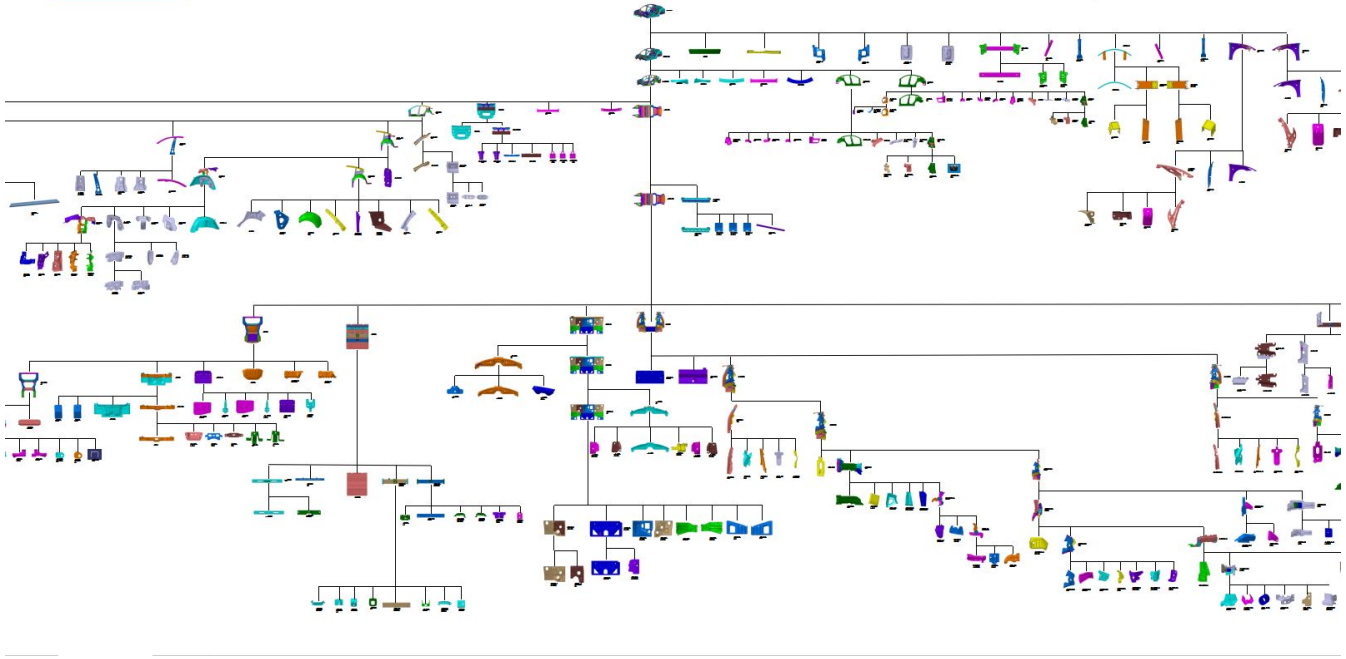


04

Report & Analysis

Report &General Arrangement Drawing





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