

Battery Swapping Connector

Under development

Connector for electrical connection between vehicle and replaceable battery, with a structure that can absorb misalignment between vehicle and battery pack

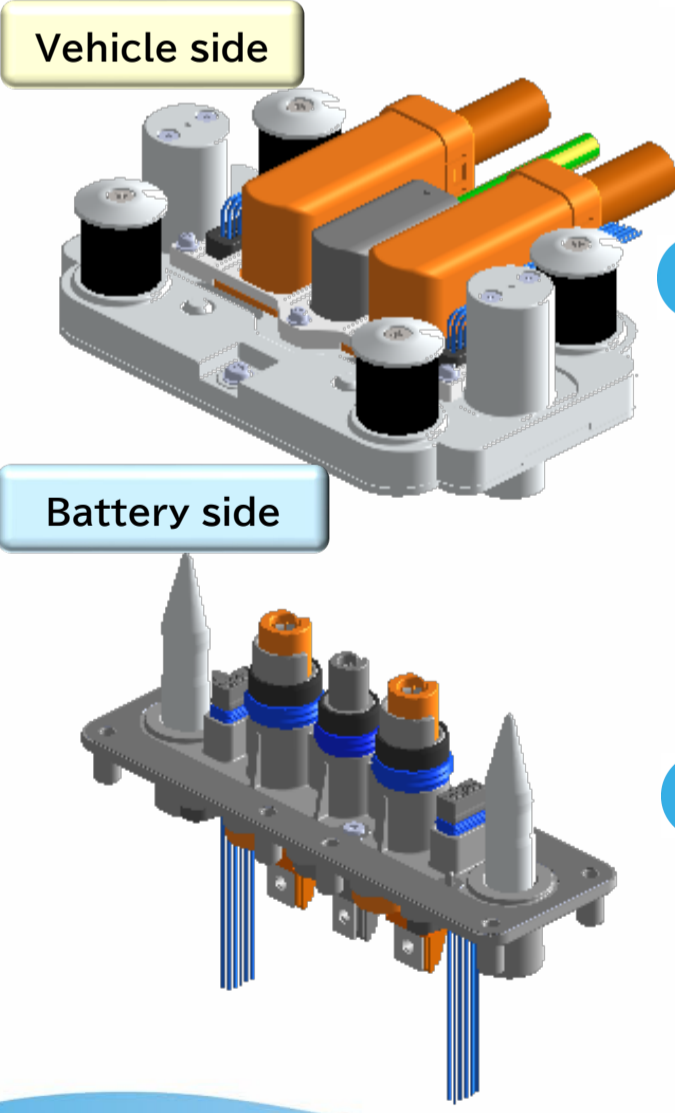
Background or Assignment

With the expansion of BEVs, shorter charging times are required, and replaceable batteries are being considered as one of the solutions.

Solutions to Challenges

- 1 Horizontal extraction of wires (space-saving for underfloor installation)
- 2 Absorbs misalignment between vehicle and battery (aligning structure)
- 3 Enables single circuit maintenance by separating the connector part and mounting part (serviceability)

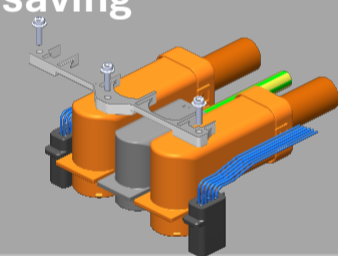
Main performance, specifications, and structure

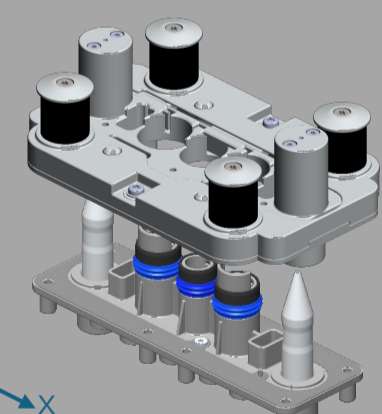


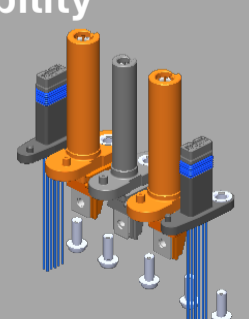
Vehicle side

Battery side

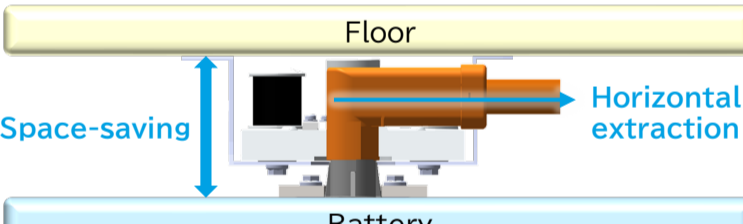
- 1 Space-saving**


- 2 Aligning structure**
(Displacement absorption: ± 5 mm)


- 3 Serviceability**



<Installation image>



Space-saving

Horizontal extraction

Floor

Battery

Floating using a rubber cushion (Z direction)

Floating within the movement range (XY direction)

Positioning using a pin (XY direction)

Positioning using a contact surface (Z direction)

Each connector can be individually maintained

<List of individual connectors >

	Low-voltage	High-voltage	Ground
Vehicle side			
Battery side			