Automatic assembly method of new energy batteries

What happens after a battery module is assembled?
After the battery module is assembled,it needs to be placed into the battery tray. As this tray is a key structural component of the vehicle as well as integral in protecting the battery cells,it needs to be of the highest strength and stability.

Can an automated assembly station be used for all-solid-state battery cell manufacturing?
For this reason, a design of an automated assembly station for all-solid-state battery cell manufacturing is proposed, that considers the material and process specific requirements.

Can Li-ion battery assembly be used in a niche automotive supply chain?
This paper details a feasibility study for Li-Ion battery assembly, developed for a traditional automotive supplier of niche production systems in order to enable them to enter the emerging lower carbon OEM supply chains.

How does a battery tray assembly work?
The battery tray assembly consists of several production steps. Depending on the battery design and manufacturing processes,manual tightening with bolt positioning and process control,or flow drill fastening with K-Flow technology can bring the needed process quality,productivity and flexibility.

Can robotics support the Assembly and disassembly of EV batteries?
Efforts are being madein collaborative robotics and multi-objective decision making to support the assembly and disassembly process of EV batteries (Sha et al. 2011; D'Souza,Patsavellas,and Salonitis 2020; Kousi et al. 2019;Michalos et al. 2018).

Should a manufacturing line be able to disassemble Li-ion batteries?
In order for a manufacturing line to be able to provide the greatest benefit to OEMs and a potential aftermarket, having a reconfigurable assembly line that can not only assembly Li-ion components, but disassemble them too, this opens a market far beyond just manufacturing of new batteries.

Machines 2021, 9, 352 4 of 23 Besides the basic simple straight line, mixed-model assembly lines with specific con- figurations are handled by some researchers.

Highlights of New Energy Prismatic Battery Automatic Assembly Line ? The yield of the assembly line is as high as 99%, which is compatible with 100Ah - 280Ah and other different cell specifications.

This paper proposes a design and analysis method for automatic production lines. Through analyzing the manual assembly process of battery cells and reed pipes, an automatic assembly line is designed.

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This paper provides proposals for potential applications where deployment of robotic automation in the battery module assembly context can be explored. The paper investigates key factors including equipment selection, and proposes conceptual scenarios based on these factors.

The application relates to the technical field of new energy battery modules, in particular to an automatic assembly production line and an assembly method of an energy storage...

Lithium battery module fully automatic assembly line is mainly used in the production of new energy lithium battery modules, square battery modules, energy storage battery modules, power battery modules and pack welding assembly, etc. Streamline your battery production process with our cutting-edge Battery Pack Assembly Line.

Capable suppliers of Li-Ion battery assembly systems are essential for enabling automotive OEMs to scale up their Li-ion EV production to expected volumes. This paper details a feasibility...

This paper presents the development of a scaled and flexible automated assembly station adapted to the challenging properties of the new all-solid-state battery ...

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