The company's FlexVision 3D system is already used in a variety of body-in-white and powertrain assembly applications. Depending on the size of the panel, the system uses one or more color cameras," says Michael Vv." With the Car Fuse Inspector, it's easy and cheap to do an inspection during the final assembly process, saving producers time and money. Today, things have changed," Niu points out. "Sensor accuracy and speed have improved, enabling faster production cycles while maintaining high-quality standards. Vv've been working on a project in collaboration with an automotive manufacturer that involves using machine vision to replace the need for human visual inspection, reducing errors, creating a more reliable product, and improving overall production efficiency."

"Machine vision is replacing the need for human visual inspection, reducing errors, creating a more reliable product, and improving overall production efficiency," Vw says. "The sensor also offers the ability to set up in only minutes without a PC," claims Nelson. "This allows for rapid deployment and reduces the time required for system integration."

"3D vision is playing a key role in the automation of final trim and assembly," says ABB's Roda. "Our products use advanced machine vision technology that can recognize patterns and inspect parts in real-time. This not only improves accuracy but also increases productivity."

"Vision is a mature technology that has been widely embraced in the automotive industry, particularly in body-in-white and paint processes where robots have been used for a long time," says Grant Zahorsky, machine vision engineer at Canon USA Inc. "The system is applicable for applications such as cockpit installation, door assembly, and bin picking. FlexiPick enables a robot to pick up parts randomly placed in a bin and present them in the correct location.""