



Application Solutions

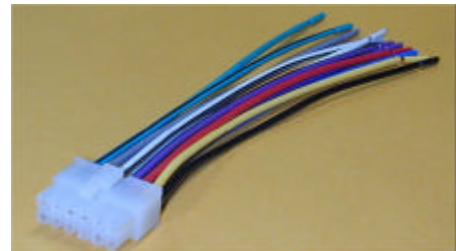
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Automotive Industry

Verify Correct Assembly of Wire Harnesses Using Color Detection

Challenge:

A supplier of wiring harnesses for automotive connections must prove 100% inspection to verify correct wire colors and placement in the connector. As with many automotive tier suppliers, inspection of parts to guarantee quality is important to maintain the business relationship, and prevent fines or return of entire production lots at the supplier's expense.



Solution:

To achieve 100% inspection of each wiring harness for correct color wiring presence and placement in a connector, Omron's F400 color vision sensor was selected. The wire harnesses are fed down a conveyor under the color camera. The vision sensor uses a "color pick-up" mode to detect each wire by color. By setting up measurement regions to search for each color required at a particular location on the connector, the vision sensor verifies the presence and correct placement of each wire on the connector. Position compensation can be used if the location of each wire harness varies on the conveyor. Pass/fail outputs trigger a rejection mechanism if the part fails. This method can also be used to sort different models of wire harnesses as well.



For more information on Omron's V400 Color Vision System, call 866-88-OMRON or visit www.vision.omron.com