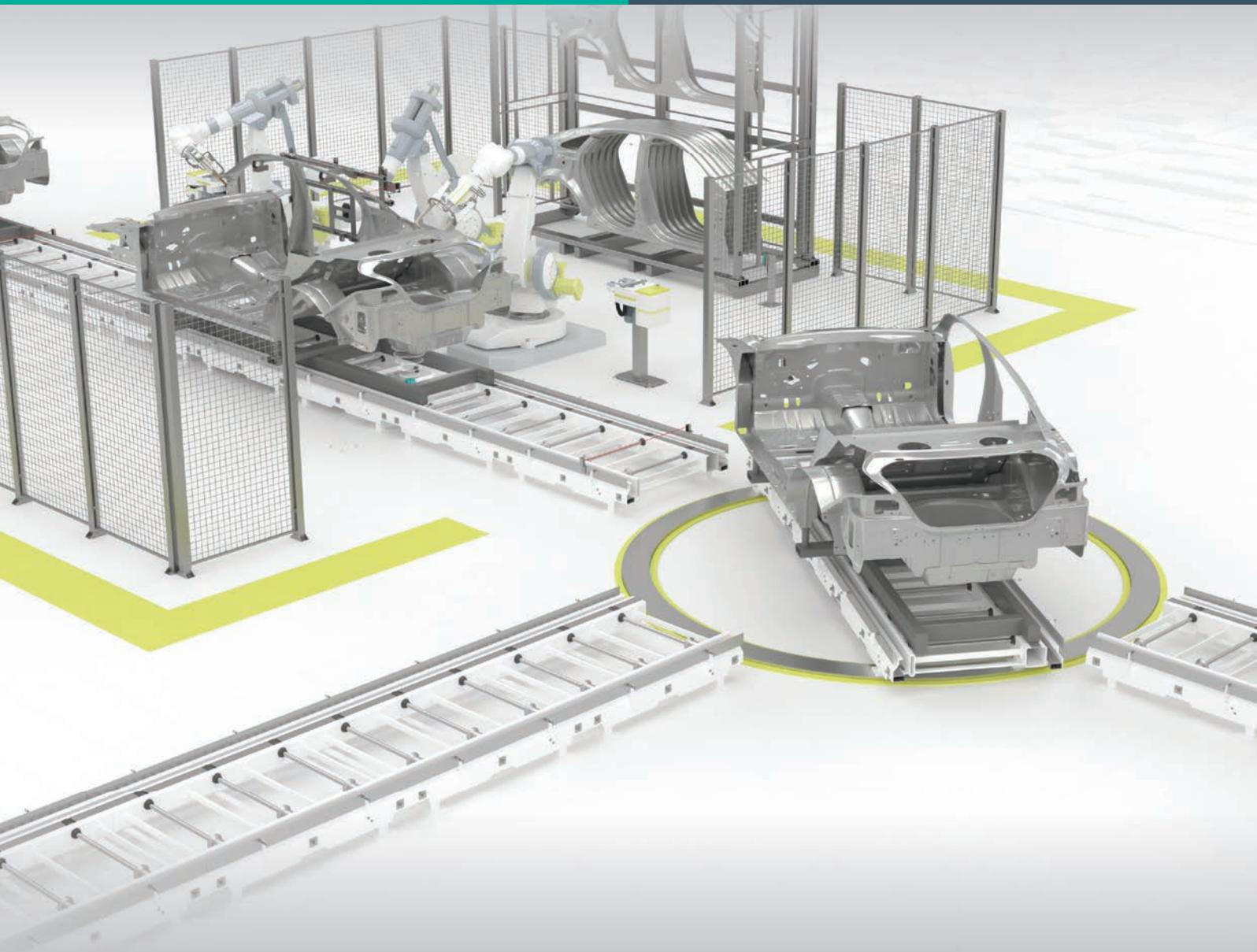


Reliable Traceability in the Automotive Manufacturing Process

Vision Camera for Tracking Vehicles during the Assembly Process

At a Glance

- Reliable reading of codes of different standards and sizes
- Completely automatic code reading process, regardless of vehicle make and color
- Data transmission to customer's internal system via industrial communication
- Simple configuration via free and user-friendly programming software



The Application

When we talk about vehicle manufacturing, a very important topic is the traceability of the process, which is monitored in all stages of production to ensure an optimized flow.

The automotive sector faces some challenges with this traceability requirement. However, this task is necessary to control and monitor the entire process to report relevant and strategic information to the operations, supporting tools and applications on the shop floor, as well as higher levels of plant management.

The Goal

The main objective is to identify the codes printed on labels attached to the body of the car. The information contained in these labels is of great importance for the operation of the factory, some of which are the model, color, version, and validations of previous steps, that is, the vehicle's recipe is available in this barcode.

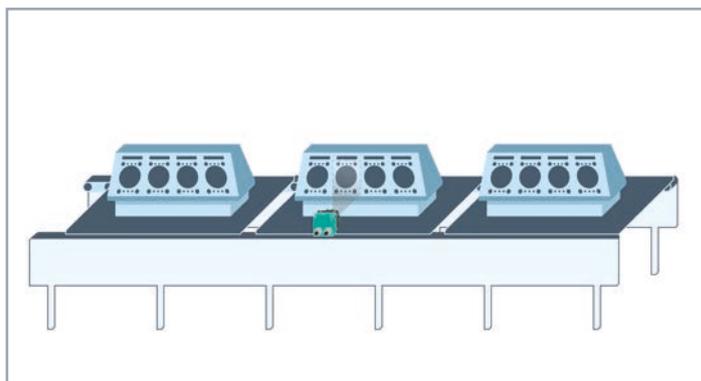
The Solution

The VOS series vision sensor from Pepperl+Fuchs are ideal for reliably reading codes of different standards and sizes, meeting the requirements even in challenging environments such as in the automotive sector.

The vision sensor is conditioned to the vehicle identification process by reading barcodes and, depending on the vehicle model, also forwards the appropriate accessories in final assembly. All of this is done by an auxiliary "picking by light" system.

All data is sent to the customer's internal system via industrial communication, using protocols such as EtherNet/IP, PROFINET, Ethernet TCP/IP, and RS232.

The solution also offers free and user-friendly programming software for easy configuration, optimizing commissioning time.



The Benefits

In this application, the VOS vision sensor allows all codes to be read, so the entire process is automatic and works properly regardless of the model and color of the vehicle, without the need for manual readers that prolong the process. In addition, VOS offers several interesting features and tools that can be suitable for a wide range of applications.

Technical Features

- Identification of 1-D and 2-D codes
- Resolution up to 5 mega pixels
- Identification distance up to 2000 mm, depending on application
- Communication via RS232, Ethernet TCP/IP, EtherNet/IP, and PROFINET
- Vision sensor versions for part inspection
- Programmable I/Os

