Software | Electronics | Control technology | Robotics | Image processing

ITgroup

RoboInspector

Robot based testing

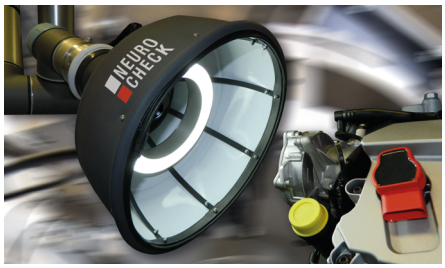
Initial situation

- The customer attaches the highest importance to complete quality control, 100 % tested components and therefore absolute avoidance of rejects
- Independence from operator control on critical quality parameters
- Comprehensive storage of results and traceability via photo documentation

Goal

- Complete integration of the testing and documentation process into the customer's production system
- Robot based testing and monitoring of the spark plugs mounted in the engine block
- Parallel photo documentation for complete fulfilment of the obligation to provide evidence and easy traceability
- Fast and flexible extensions to additional testing characteristics possible at any time

picture source: NeuroCheck



picture source: NeuroCheck

picture source: ITronic

Solution

In the exemplary use case, the RoboInspector checks the correct insertion of spark plugs into an engine block. The ring light integrated in the protective shield allows a complete check of the activities previously carried out. The ring light can also be controlled individually and can therefore also be used without any problems for testing black elements on a black background thanks to a flexible shadow cast at different exposures. The RoboInspector's self-developed protective shield is additionally sensor-monitored and in this way ensures that it can work as a cobot without being enclosed. The comprehensive storage of results also enables the highest standards of quality assurance and verification.

Should the RoboInspector's field of operation expand or change, new inspection features can be added quickly and easily thanks to the flexible combination of robotics and camera technology. These features make the RoboInspector a reliable and flexible partner for complete quality control through robotic inspection technology.

Cooperation

The project was carried out in cooperation with NeuroCheck GmbH.

NEURO CHECK
Industrielle Bildverarbeitung

www.itgroup-europe.com

ITronic GmbH
Rathausgasse 20
D-71729 Erdmannhausen
T +49 71 44-8711-00
sales@itgroup-europe.com

ITronic Kft.
Pápai u. 43
H-8200 Veszprém
T +36-88-591-020
info@hu.itronic.biz