Press Release

Automotive Glass: Modular Inspection of adhesive joints on windscreens

Würselen/Germany, September, 9th 2008: FiberVision GmbH releases the second generation of the 3D-Check, an optical inspection system for glue lines in the glass industry.

Field of application

Special geometries, prints and security foils turn automotive windscreens into complex products. Car manufacturers receive their screens ready to use with seals, as well as with holders for rear view mirrors and a continuously growing number of sensors. Mirror and sensor holders are glued onto the windscreens. The prescribed amount of glue has to be precisely at the right position of a well positioned holder.

In 2005, FiberVision introduced 3D-Check. 3D-Check was specially designed for glue line inspection on windscreen holders. Since then, the automotive industry changed remarkably: The number of windscreen sensors increased and they became larger, too. FiberVision reacts to this process by launching the second generation of 3D-Check. The new 3D-Check is modular and comes in two versions with identical box geometries. 3D-Check/80 uses two cameras and covers holders up to 80 mm width. The high-end version 3D-Check/160 is designed for holders which are up to 160 mm wide. The measurement speed of 130 mm/s and the proven precision of its smaller sibling are kept by using four cameras. The length of the measurement field is larger than 300 mm in both variants. Hence, there isn't any length limit for all holder types that might occur in practice.

Technique

3D-Check is a laser scanner using the light-stripe technique. 3D-Check creates a three dimensional image of the device under test and detects changes from the ideal geometry with high precision. The system uses two laser planes which have an angle of 90° between them. This ensures high resolution in all three spatial axes. Thus, the holder is measured while it performs a fast linear movement which is independent from the specific holder type.

Integration

The new 3D-Check is able to measure two holders independently from each other in one measurement run. This means in practice: A robot may pick two different holders, e.g. one for a mirror and one for a rain sensor. The robot places glue onto the holders and moves them to the windscreen. The holders pass the 3D-Check system on their way. 3D-Check measures the holders with the glue. The result is sent to the PLC via Profibus. The PLC can block bad holders being stuck onto the glass because it has the inspection results before the robot reaches the windscreen.

FiberVision GmbH
Geschäftsführer: Dipl.-Ing. Eckard Eikelmann
Sitz der Gesellschaft: Würselen
Handelsregister: Amtsgericht Aachen · HRB 6229

Sparkasse Aachen
Kto.-Nr. 131 62 64 – BLZ 390 500 00
USt-IdNr. DE172728866

e-mail: info@FiberVision.de
URL: www.FiberVision.de
Tel.: 0 24 05 / 45 48 - 0
Fax: 0 24 05 / 45 48 – 14

About FiberVision

FiberVision GmbH was founded in 1995 as a spin-off of RWTH Aachen University. First products were fiber optical sensors and vision systems for color measurements.

Today, the engineers and scientists from FiberVision develop and build optical measurement, positioning and inspection systems for industrial use. The essential feature of FiberVision systems and products is: The easy access to complex technologies by providing user interfaces for intuitive use.

To mention a few FiberVision products:

- Caminax: A smart camera which integrates a complete machine vision system into an extremely compact housing.
- LED-Check: A vision system for color control of light emitting diodes.
- 3D-Check: An inspection system for the glue application in the automotive industry.

FiberVision has well-known customers such as: Continental, Ford, Hella, Paul Hartmann, Philips and Saint-Gobain Sekurit.

Contact

Editor's Contact	**Contact to be Published**
Dr. Erik Marquardt FiberVision GmbH Jens-Otto-Krag-Str. 11 D-52146 Wuerselen Germany Tel.: +49 2405 4548-28 Fax: +49 2405 4548-14 info@fibervision.de	FiberVision GmbH Jens-Otto-Krag-Str. 11 D-52146 Wuerselen Germany Tel.: +49 2405 4548-0 Fax: +49 2405 4548-14 www.fibervision.de info@fibervision.de

Remarks

We ask **print media** to send us an author's copy of the publication.

Online media should send us a link to the publication.

Please note the following provisions on the **images** released with this press release:

- The copyright owner of the images is FiberVision GmbH.
- The copyright owner agrees to the publication of the images together with this press release.
- The images may be used for journalistic purposes.
- The images must not be altered or combined with other images without our consent.