



Colour recognition for seams in automotive interiors

A well-known German car manufacturer relies on poka-yoke mechanisms for assembling interior components. The poka-yoke process prevents product defects due to random human errors and ensures that all parts are assembled correctly. However, similar types of component often have different coloured seams, which is why error prevention is critical. Previously, these checks were performed manually - experts inspected the seams visually.

Micro-Epsilon's colorSENSOR LT-3-HE colour sensors are now used to automate this process and to make it more efficient. Due to their high measurement resolution (Delta E colour difference), these high-end colour sensors are able to easily distinguish seams that look virtually the same to the human eye. Another advantage of this system is its high repeatability accuracy - the results are easily reproducible.

Advantages

- Prevention of assembly errors
- Cost savings by omitting arduous manual verifications
- Faster production

Requirements for the measurement system

- Detection of 31 different colours
- Measurement accuracy $\Delta E \geq 0.5$

Ambient conditions

- Room temperature
- Clean environment

Sensors

- colorSENSOR LT-3-HE
- 1.5-1200-67 fibre optic cables

