



# Neadvance

**Neadvance develops intelligent computer vision systems applied to quality control and automation of industrial processes. The knowledge and experience gained in modernising various industrial sectors, medical imaging and smart cities, enable Neadvance to make its solutions available in nine countries and three continents.**

Neadvance intelligent systems include 2D and 3D dimensional and position analysis; colour and texture identification, measurement and recognition; character

and pattern reading; defect detection and classification and robot guidance in several industrial processes.

## ACTIVITY SECTORS



**INDUSTRY**



**AUTOMOTIVE**



**AGRIBUSINESS**



**SMART CITIES**



**MEDICAL IMAGING**

## THE ADDED VALUE OF NEADVANCE PRODUCTS

- Flexibility and robustness
- Durability. The products meet the customers' needs and evolve according to new challenges presented
- Possibility of acquiring more knowledge and control over the production processes, improving relevant actions
- Proprietary application library
- Constantly developing software with the latest innovations in the sector
- Strong connection with knowledge clusters
- Sound knowledge of production / shop floor processes
- Compatibility with multiple hardware of different technologies
- With a single Neadvance solution it is possible to integrate and coordinate several functions simultaneously, overcoming time and space constraints in the optimisation of production processes.

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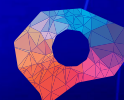
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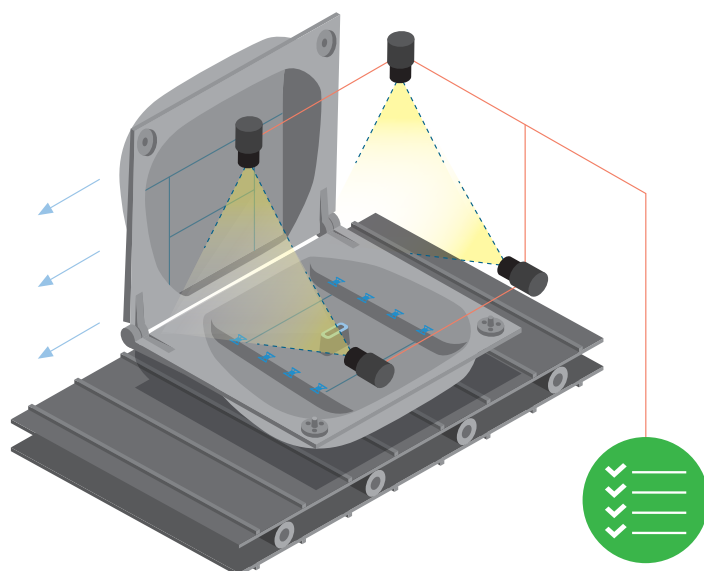
# INSPECTION SYSTEM FOR MOULDS IN THE FOAM LINE FOR CAR SEATS



Neadvance

Car seats play a crucial role in the experience and comfort of both driver and passengers.

Injected foam is the basic component in the manufacture of car seats and the inspection is usually done manually. With this procedure, the occurrence of defects in the production process leads to inefficiencies in production, in terms of costs related to raw materials and wasted final products, since the defective product cannot be repaired.



## DESCRIPTION

The Machine Vision system comprehends four high-resolution matrix cameras and dedicated lighting, capturing clear moving images of the mould. This quality control is performed before the injection of foam into the moulds in order to prevent raw material wastage.

The inspection process uses advanced algorithms of colour, texture and area analysis, complemented with background subtraction techniques using wavelet algorithms and pattern recognition.

The inspection process is fully monitored by the client's production management system.

The inspection system checks:

- The presence and correct positioning of Wires
- The presence and correct positioning of Velcro fasteners
- The presence and correct positioning of Cloths
- The presence and correct position of Moquette fabrics
- The presence and correct position of Clips
- The existence of incorrect and unnecessary components

## FEATURES

- Cycle time: 7 s per mould
- System optical resolution: 66M Pixels
- Measurement resolution: 0.25 mm/pixel
- Inspection Area (LxWxH): 900X700x700 mm
- System dimension (LxWxH): 900X1000x2500 mm

- Capture of 48 moving images of the matched mould
- Dedicated and diffuse high-powered lighting system in strobe mode
- Integration with the client's production line Generation of reports

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