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 is 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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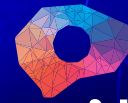11900 Bayan Lepas, Penang
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The interface between driver and vehicle is, increasingly, a distinguishing feature in the car market.

Alignment through manual processes is totally unfeasible for our current instrument panels and their growing complexity and precision.

DESCRIPTION

The Machine Vision system comprehends matrix cameras and dedicated lighting. The hardware can be assembled in fixed positions or with the assembly robot gripper of the displays.

Some useful characteristics for purposes of alignment are: fiducial marks; active area of the display; mechanical characteristics; holes in glasses, among others.

The inspection software implements image correction and calibration techniques, area analysis, recognition of

2D patterns and transition detection with subpixel algorithms.

The system has the following functionalities:
- Support the assembly/gluing process
- Perform automatic alignment between display and mask/glass
- Measure the position of the mask's oblong holes
- Measure the position of the display's fiducial marks through the glass

FEATURES

- Cycle time: 5 s per display
- System optical resolution: up to 47M Pixels
- Measurement resolution: 4 µm / pixel
- Inspection Area: following customer requirements
- System dimension (LxWxH): 1200X1200x2000 mm

- Flexible system that allows aligning of several types of displays
- Communication with robot to send the measurements taken
- Fully calibrated system: Metric calibration, Referencing of the cameras in the "world"

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