

NEWS AND PRODUCT REVIEWS FOR
MACHINE VISION PROFESSIONALS

inVISION



A Message From The CEO ▼

Welcome to the first edition of inVISION! In 1991, DVT ignited the machine vision revolution with SmartImage Sensors and we haven't looked back since. Now factory automation faces an exciting convergence of vision, robotics, motion control and Internet technologies & networks. This convergence is creating the opportunity for untethered access to your real-time, factory floor data — and all at a fraction of the price of traditional machine vision systems. With Ethernet connectivity in every SmartImage Sensor, we help you better manage and control your production from anywhere around the globe!

We hope you will find inVISION to be your complete knowledge source for the latest information, applications and emerging trends in SmartImage Sensor technology.

Robert Steinke

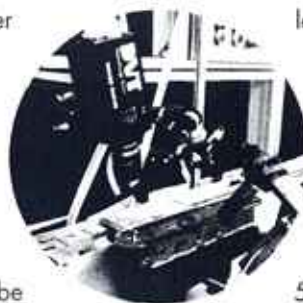
Chairman and CEO
DVT Corporation

Better Manufacturing Through SmartImage Sensors

Problem I. It is two-fold for Tier One suppliers in Mexico. 1) Labor costs are going up. 2) Zero-defect manufacturing is essential.

Solution I. The implementation of real-time, on-line quality control systems. Specifically, machine vision systems.

Problem II: The Setting: A Tier One supplier plant in which there is a production line that outputs up to 4,000 rear lamp assemblies per day. As many as 12 different features per assembly need to be checked. The checks must be performed within eight seconds. For example, the alignment and penetration of screws must be determined within 0.1mm accuracy and the presence of associated hardware must be verified. What's more, the unit model must be identified by reading embossed alphanumeric characters in the lens cover plastic. (This had been a manual task. Their cycle time was more than 30 seconds per assembly.)



Mexico). In operation, the operator loads the rear lamp assembly onto a fixture, then initiates the cycle. The part goes through inspection stations based on Series 600 SmartImage Sensors from DVT Corp.

(Norcross, GA). There are four sensors at the heart of the system: two check the screws, one checks the hardware, and the fourth reads the ID number on the

lens cover (a particularly tricky thing, given the high-gloss surface of the plastic). Information is relayed to an Allen-Bradley PLC; results are shown on a PanelView 500 display. Depending on whether flaws are detected, the assembly proceeds or is rejected.

Added Benefit. When the inspection system first went on-line, there was an injection molding error rate of as much as 25% detected with the holes where the screws are inserted. Because of the accuracy of the DVT SmartImage Sensors, the manufacturer was able to pinpoint the problem on the mold and to make the required modification.

Solution II: The System. A fully automatic vision inspection system engineered by NewPlus Technologies (Monterrey,

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