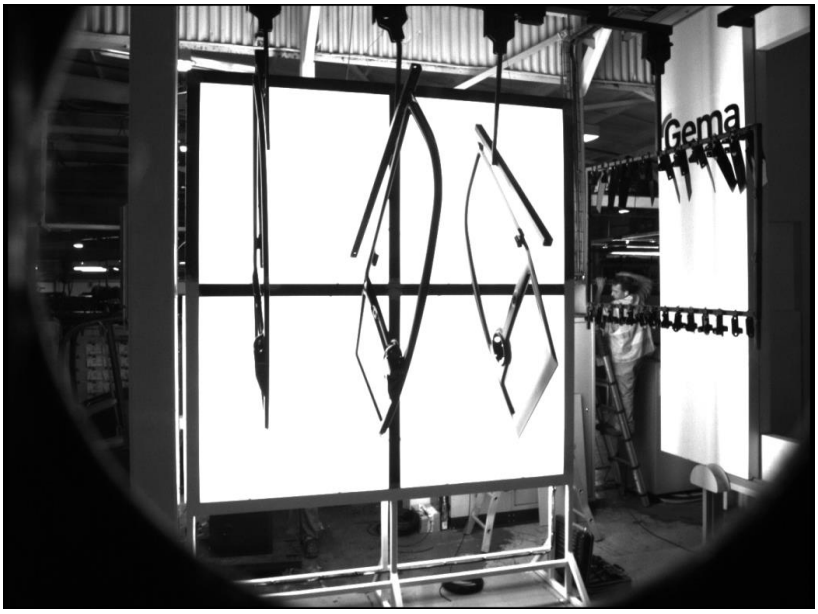
Inropa™ IVision

Automatic Recognition of Parts and Program Transfer

Inropa™ IVision automatically recognizes parts through the use of images, and selects an associated program which is sent to the robots.

Inropa™ IVision is a user customizable system, used to detect and recognize parts using cameras. The system recognizes parts using feature based rules setup by the operator.



PART RECOGNITION SYSTEM

With an Inropa™ IVision system, the operator uses knowledge about the parts to setup rules for each part. The rules are based on knowledge of certain features for each part. When completed, the rules span a tree structure which divides the parts into a unique set of rules.

When a product enters the recognition zone, the system takes a picture of the part. This picture is searched for the features defined in the rule tree. The program associated with the found part is thereafter sent to the robots, making it ready to execute when the product enters the process cabin.

ALERTS

The Inropa™ IVision system is capable to give alerts if certain criteria are met. When a part has been classified it is possible to set up an addition rule. This rule is designed to test if there are mounting errors or if the part is hanging out of place. If it is detected that the part is out of place, it is possible to either give a warning on screen or by sending an IO signal which for example can be used to display the warning at a central screen or by sounding an alarm.

VERIFICATION SYSTEM

Inropa™ IVision can also be used as a verification system. Instead of automatically sending a program to the robot, the system is merely used to verify that a user selected program matches the program and the result of Inropa™ IVision recognition. If a different result is found, an alarm is raised.

FLEXIBILITY

When using the Inropa™ IVision system, it is easy to add new products to the range of existing products. The new product is mounted and sent in front of the camera(s), and the resulting product classification is observed. Regardless of where in the rule tree it is classified, a new rule is setup at that level to separate the new product the product it was classified as.

Existing rules can also be changed if physical shape of a given product it has changed or if it is observed that the current rules are not strong enough.

RELIABLE

Because of the simplicity of the system and the fact that the operators, who are most familiar with the various product features, create the rules, the system is very reliable. It is also a system that will become increasingly reliable as the operator is quickly able to adjust the system to avoid any false classifications.

PROVEN TECHNOLOGY

Inropa™ IVision is running in serveral industrial paint lines.

For further information, please visit our website www.inropa.com

INROPA™
Intelligent Robot Painting

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