

3D Vision Sensors for Automatic Contour Detection

How RG Technologies Added Automatic Contour Detection as a Key USP into their Software Solution for Leather Processing



In leather processing, one of the first steps is a precise detection of the workpiece's contour as well as any manual markings on the skin. RG Technologies has replaced this tedious manual process using our 3D vision sensors: A true USP of their PEAKTOURE software solution.

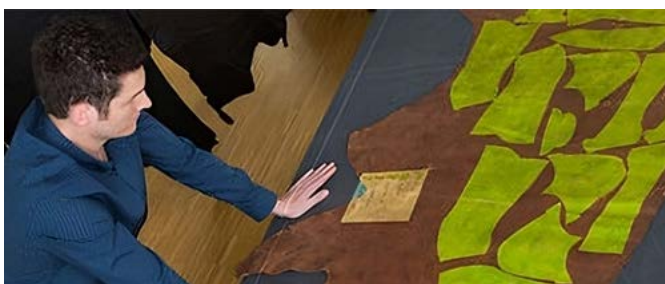
In Need of a Vision Solution – with an Extensive List of Requirements

When RG Technologies, one of the leading providers of high-performing industrial cutting systems for textile and leather processing, looked for a reliable vision solution to detect the contours of leather pieces as well as marked faults and quality zones, their list of requirements was long.

Their perfect vision solution would need to be:

- a reliable and robust application, insensitive to light exposure,
- that would deliver precisely repeatable detection results very quickly and at a high accuracy,
- platform-agnostic and scalable,
- easy to install and just as easy to maintain,
- and, last but not least, good value-for-money.

And although their application does not even include any robots, they turned to Roboception's 3D vision sensors.



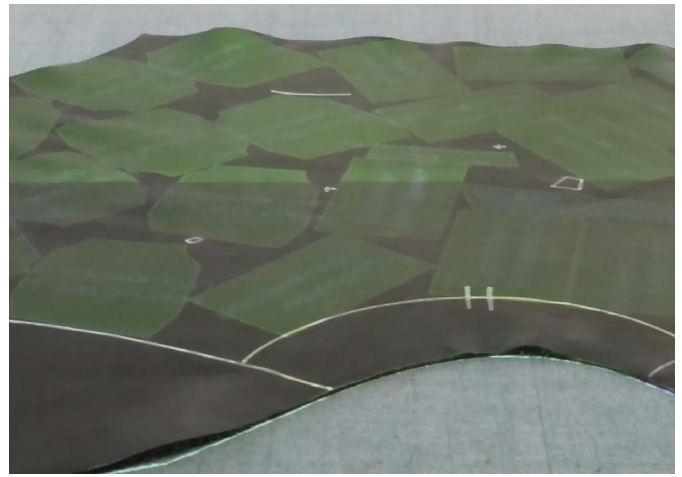
Reliable Automatic Contour Detection – A Key USP for RG Technologies’ Software

RG Technologies offers integrated cutting solutions for ‘anything that can be laid flat on a table’. They set a strong focus on leather and textile. At the heart of their solutions, their CCUT software for nesting and cutting controls these systems efficiently.

Due to the nature of the product (varying shapes, quality zones, faults and unevenness), the efficient use of leather skins is particularly challenging. The first step in the cutting process is the manual marking of faults and quality zones. After that, capturing the individual shape and the markings has been a tedious (often manual) task in the past.

“Using two rc_visard 160 monochrome coupled with a tailor-made software piece which Roboception developed specifically for this application, we have now fully automated this step. It has been integrated into our software solution as the PEAKTOURe Detection Module,” says Gerald Meister, Head of Development at RG Technologies GmbH.

The automatic contour detection enables an equally automated ‘nesting’. This term describes the optimized distribution of the patterns to be cut from the material, considering quality zones and faults. Material utilization is increased significantly, as is the final output at the cutting table. The precise repeatability ensures a permanent process reliability. The increased output and the fact that detection and nesting are done within a matter of seconds, are a clear advantage over many comparable leather processing software solutions.



Roboception GmbH

‘Eyes and Brains for Your Robot’: Roboception is a leading provider of intelligent robot vision platforms and systems. The Munich-based company enables robots to see and think, thus providing key elements for flexible automation solutions in Industry 4.0.

Roboception supports integrators and end users in creating innovative automation solutions for the future-oriented use of robots in production and logistics.

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