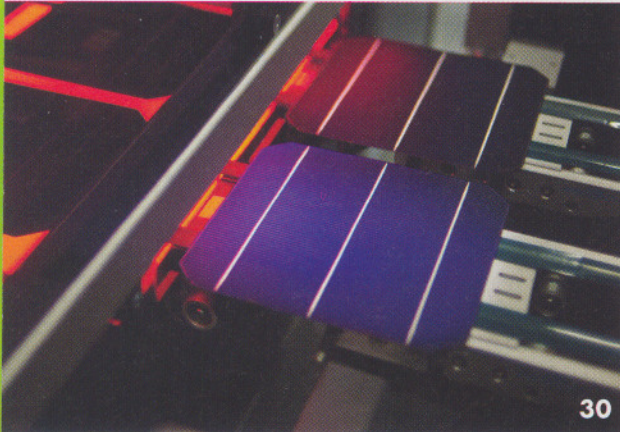




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- Hidden 3-D objects imaged
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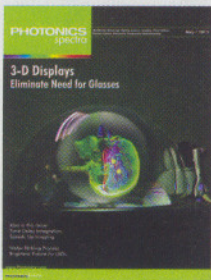
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Alexander Graham Bell, we can hear you now



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44 | HITTING EVERY ANGLE WITH AUTOSTEREOSCOPIC 3-D DISPLAYS

by Gregg Favolora, Optics for Hire

Autostereoscopic display – creating imagery that looks 3-D without special glasses – is moving forward, thanks to advances in lens arrays, electro-optics, diffusers and software.

50 | TIME DELAY INTEGRATION SPEEDS UP IMAGING

by Xing-Fei He and Nixon O, Teledyne Dalsa Inc.

The flat panel display industry depends on this line-scan technology for high-speed inline automatic optical inspection under light-starved conditions.

56 | WAFER-ETCHING PROCESS BRIGHTENS FUTURE FOR LEDs

by Derek Mendes, Imtec Acculine LLC

Faster and less costly than dry etching, high-temperature wet etching holds promise for scalable manufacturing of energy-efficient LEDs.

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by Marc D. Himel and Jim Morris, DigitalOptics Corporation

Upgrades in tools for manufacturing diffractive optics have enabled new applications in the visible and near-IR regimes requiring large angular distributions.

65 | VISION SOFTWARE ENABLES NASA ROBONAUT TO SEE

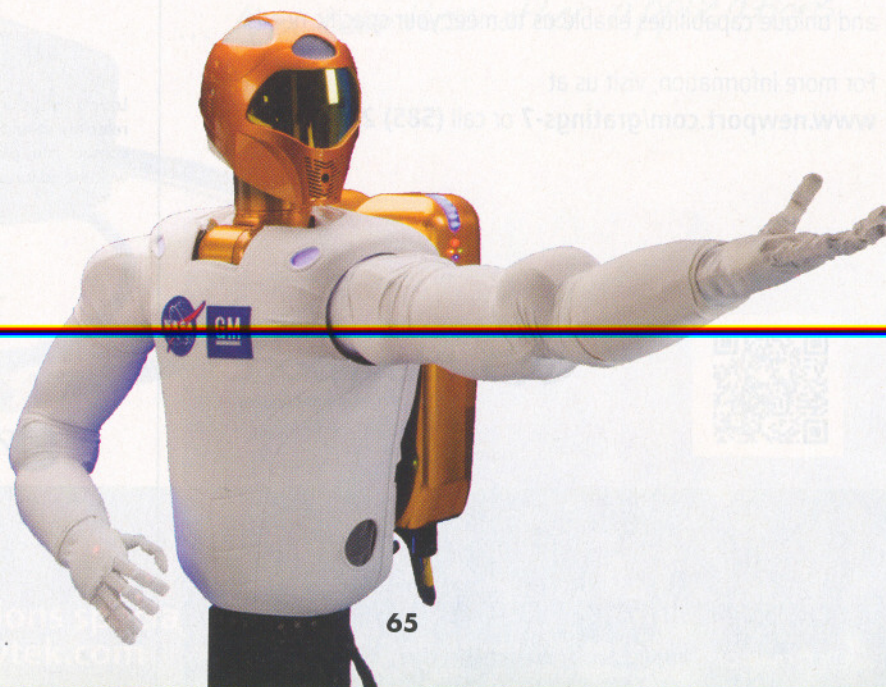
by Dr. Lutz Kreutzer, MVTEC Software GmbH

The first robotic humanoid to visit the International Space Station uses sophisticated software and a multiple-sensor stereovision system to recognize complex patterns.



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