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Precision Positioning Technologies - Mars Rover-Tested

Physik Instrumente (PI) and PI miCos offer the broadest and deepest portfolio of precision motion technologies in the world: from stepper motor positioners to piezo mechanisms and 6-DOF motion platforms for ambient and vacuum environments. Our engineers will match your application to the appropriate technology.

PI's PICMA® piezo actuators are employed in the ChemIn instrument on the Mars rover's science lab. These actuators survived 100 billion cycles of life testing with no failures, maintaining 96% of their specified performance. The Mars rover employs another PI precision positioner, the MT-40 Space, closely based on a commercial-off-the-shelf stepper motor stage, manufactured by PI subsidiary PI miCos. This linear stage is used as a focusing mechanism for laser induced breakdown spectrometry.

These are but two examples of how our expertise solves mission critical motion control problems even under the toughest conditions. Talk to our engineers or visit our website to learn more.

[More Info >>](#)

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Vacuum Positioners
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Optical Sensors Speed Up Production Lines

Recent advances in optical sensors enable the industry to monitor manufacturing processes on line in real time at a very fast rate.

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New photodetector makes do with few photons

The fundamental probabilistic nature of light makes it impossible to perfectly distinguish light from dark at very low intensity. Low power and high fidelity in reading data are especially important for secure communications and quantum computation; to facilitate such capabilities, a detector that sees well in the dark is crucial.

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Metrology Market Expected to Reach \$720M by 2018

The global metrology services market will reach \$720.3 million in five years, growing at a compound annual growth rate of 8.2 percent from 2012 to 2018, according to a new market report.

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Laser Spectroscopy Overcomes Measurement Challenge

A "remarkably simple" approach overcomes the challenge of measuring key aspects of electron behavior while designing ever-smaller components, something that could allow cellphones, laptops and tablets to get increasingly thinner and more energy efficient.

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Faster Mold Coating Tests Make Glass Processing More Efficient

Bypassing the time-consuming wear stages of heating and cooling allows quick testing of mold coating lifetimes while increasing efficiency for precision glass molding.

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PI Extends Factory Space

Precision positioning systems provider PI (Physik Instrumente) has added a new building to its factory in Karlsruhe, Germany, providing more production floors, metrology labs and R&D office space.

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