

Welcome to New Scale News, your monthly update on micro-mechatronic systems and applications. This month we continue to explore new approaches in micro beam steering. Applications include:

- diagnostic instruments
- cell cytology
- surgery
- micromanipulation
- remote sensing
- optical image stabilization
- hand-tremor cancellation
- LIDAR
- free-beam and optical-fiber communications
- 3D measurements
- spectroscopy

Please [email us](#) or [comment on LinkedIn](#) to let us know what you think!



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## Article: Precision micro beam-steering systems simplify move to handheld instruments

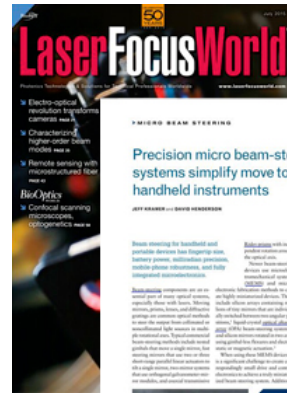
Published in *Laser Focus World* July 2015

by Jeff Kramer and David Henderson

Beam-steering components are an essential part of many optical systems, especially those with lasers. Creating **portable** and **handheld** instruments requires a unique approach to packaging integration and component selection in the beam steering system.

New Scale has created three different "point-to-point" beam steering solutions. ("Point-to-point" meaning dynamic scanning rates less than 100 Hz, as opposed to video scanning systems with rates of a few kilohertz.)

This article describes the three different approaches, ranging in size from 20 x 10 x 10 mm to 16 mm diameter x 15 mm length. [Read the article at laserfocusword.com.](#)

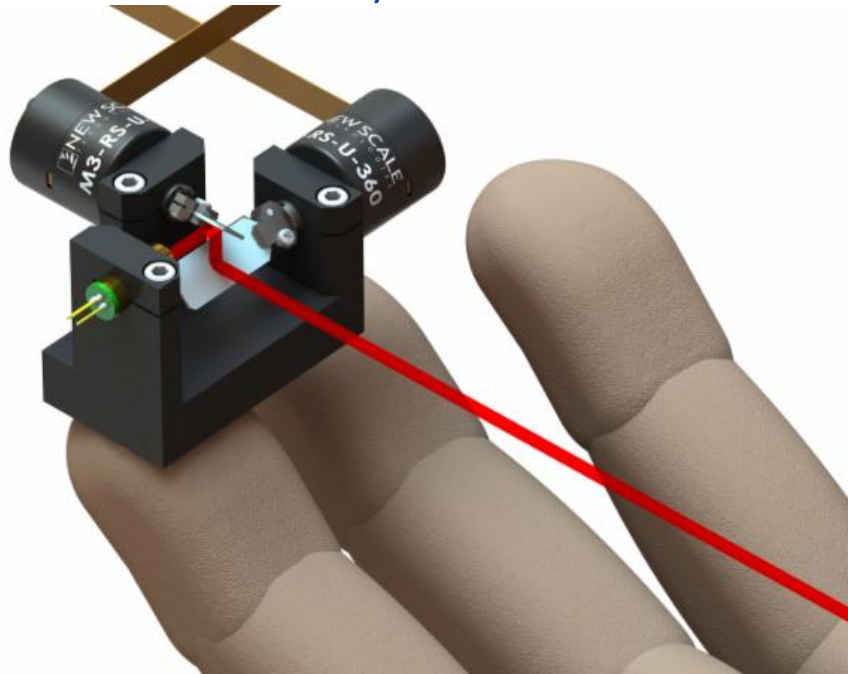


**PRECISION MICRO BEAM-STEERING**  
**Precision micro beam-steering systems simplify move to handheld instruments**

**JEFF KRAMER** • **DAVID HERRMANN**

Beam steering for handheld and portable devices has long been a challenge, but now, thanks to the introduction of precision micro beam-steering systems, the challenge is being solved. These systems are small, rugged, and easy to integrate into handheld instruments. They are also highly accurate and can be controlled remotely. This makes them ideal for applications such as medical diagnostics, industrial inspection, and scientific research. The new systems are based on micro-robotic technology and offer a range of features that make them a significant improvement over traditional beam-steering systems. They are also highly reliable and can operate in a wide range of environments. This makes them a valuable addition to any handheld instrument. For more information, visit [www.laserfocusworld.com](http://www.laserfocusworld.com).

## Sneak preview: Micro beam steering module has familiar galvo-scanner style form factor



Using two soon-to-be-announced rotary microstages, you can create a two-axis beam steering system using the familiar galvo-scanner style configuration - with a big difference! Each positioner *including the controller* is only 12 mm diameter x 12.5 mm tall. Call +1 (585) 924-4450 or [email us for preliminary specifications](#).

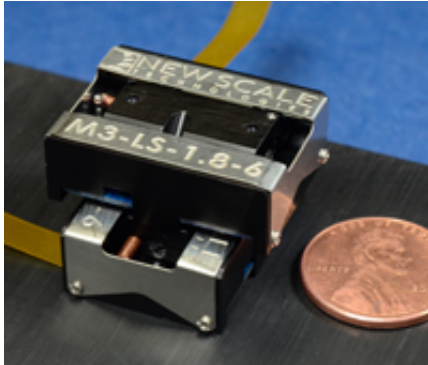
## M3-LS smart stage is ACE Award finalist

New Scale was a finalist for the 2015 UBM ACE Awards sponsored by EE Times and EDN. Our **M3-LS Linear Smart Stage**, one of our



micromechatronic modules, competed for best new product in the Passives, Interconnects and Electromechanical category.

The winner was TE Connectivity's **Coolbit Optical Engine**... which we have to agree, is pretty cool.



**New Scale's M3-LS Smart Stage**


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## About Us

New Scale Technologies develops small, precise and smart motion systems for critical adjustments of optics, and many other micro positioning applications. Our simple and elegant solutions deliver best-in-class performance in handheld, portable and mobile instruments for medical, scientific and industrial applications. Our customers benefit from complete, "all-in-one" motion solutions that are tailored to their unique requirements and easily integrated into their next-generation instruments. **Contact us.**



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