



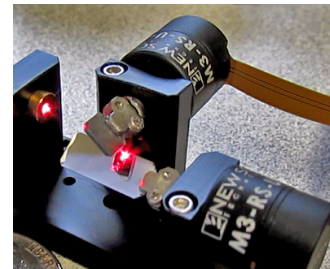
Greetings!

Welcome to New Scale News, your monthly update on micro-mechatronic systems and applications. This month we answer your questions about M3 module position resolution, share a customer application, and close with a short video holiday greeting.



M3 micromechatronic modules: closed-loop vs. open-loop stepping and position resolution

New Scale M3 micromechatronic modules are "all in-one" smart modules, with the controller and position sensor built in to the miniature module. This embedded closed-loop control gives you the smallest size, fastest and simplest integration into your system, and lowest total cost.



M3 beam steering system

When the application requires, M3 Smart Modules can also move using open-loop commands from the SPI, I2C or UART interface. This is particularly useful in applications that have an external sensor with better resolution than the internal sensor, or where very fast "step and settle" performance is required.

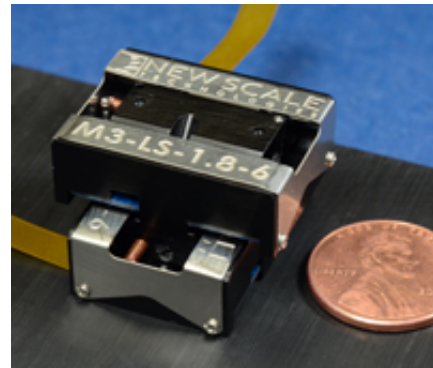
For example, for the M3-RS-U Rotary Smart Stage in the beam steering developers' kit, the closed-loop stepping resolution is 0.025 degrees (440 microradians) and accuracy is 0.25 degrees (4400 microradians), limited by the resolution of the embedded absolute angle sensor in the module. Used open-loop, the stage has a resolution of better than 0.0057 degrees (100 microradians) and accuracy is typically better than 10% of the distance traveled after calibration. [Read more.](#)



Customer application: Improving microscopy

Crest Optics is using the M3-LS Smart Stage multi-axis positioning system to enhance the resolution of optical fluorescence microscopes. They gave us four key reasons for choosing the M3-LS:

- Very compact size, easy to fit in our system
- Very smart software developer's kit (SDK) package with compact electronics for the first phase of development
- Very competitive price
- Electronic and software interface suitable for fast integration



[Learn more about the M3-LS Linear Smart Stage](#)



Santa uses the DK-M3-RS-U micro beam steering system to brighten up our holiday gathering. [Watch the video \(1:00\)](#) (autoplays with audio)



See us at SPIE BiOS / Photonics West

BiOS - Feb. 13-14, 2016
Booth #8429 - see floor plan
[More info/register](#)

Photonics West - Feb. 16-18, 2016
Booth #618 South Hall - see floor plan
[More info/register](#)

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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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