

New Scale News

January 2014

Spring has finally arrived in Rochester, and with it a lot of fresh new growth inside New Scale as well as out. This month we're pleased to share:

- our latest updates to our ground-breaking all-in-one USB stage
- what we've learned in earning our thirteenth patent
- what we'll be presenting in Montreal this summer
- and just for fun, what our kids are doing with their robot.

In this issue

[~ All-in-one USB micro stage now has absolute encoding](#)

[~ New patent for piezo vibe motor](#)

[~ See us at SPIE in Montreal](#)

[~ Video: kids and robots](#)

[~ Contact us](#)

~ Product update

All-in-one USB micro stage now has absolute encoding

Ultra-compact micro-positioning stage provides sub-micrometer precision and nearly zero friction under all load conditions

The M3-LS Linear Smart Stage is the industry's smallest all-in-one positioning stage. Now absolute encoding eliminates the need to "home" the stage on power-up.

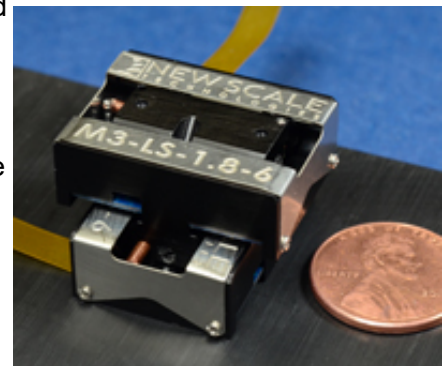
This is yet another significant advantage over stepper motor driven stages, which must be homed to locate the zero reference position every time power is cycled, and during operation can lose count of steps moved.

The M3-LS Smart Stage is driven by a self-locking SQUIGGLE piezo motor and holds position when power is turned off. When restarted, its absolute encoding allows it to move directly and immediately to the commanded position with 0.5 μm resolution..

The newly updated M3-LS also has nearly zero friction, uniform over the entire travel range, even under side loads and high direct loads.

Learn more:

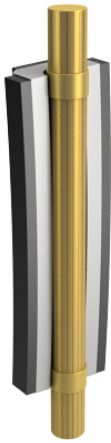
- [Read the news release](#)
- [Get details and specifications](#)
- [Download data sheet with drawings](#) (736Kb PDF)



All-in-one M3-LS Linear Smart Stage now has absolute encoding.

~ Patents

Piezo vibe motor is 33% smaller than DC vibe motor



[view the piezo vibrate motor animation](#)

Last month we received our thirteenth U.S. patent for miniature piezoelectric motion innovations: our new piezo vibrate motor, 33% smaller than comparable DC vibrate motors.

And unlike DC motors, this newly patented device produces no magnetic fields and will not interfere with nearby sensors such as magnetometers.

Applications include generation of tactile "silent" alerts in mobile devices such as cell phones.

The lessons learned from this development project go well beyond this patent and are being used in virtually all of our new smart motion systems in 2014.

Learn more

- [Read the news release](#)

~ Events

See us at SPIE Astronomical Telescopes & Instrumentation

June 22-27, 2014
Montreal, Quebec, Canada
Booth #323

SPIE. ASTRONOMICAL
TELESCOPES +
INSTRUMENTATION

Our M3-R rotary smart module will be featured in the paper presented Friday morning by JPL. *"Developing engineering model Cobra fiber positioners for the Subaru telescope's prime focus spectrometer,"* paper 9159-68
Session 15, Optical Fibers and Positioners
Friday, 10:40 am to 12:00 pm.

Also stop by our booth for a closer look at the rotary positioners as well as the new M3-LS Linear Smart Stage.

For conference programs and registration visit [the SPIE conference website](#). Please [email us](#) or call Heidi at (585) 924 - 4450 x 134 if you'd like to schedule a meeting with us at the conference.

~ Video

Kids and robots - For Inspiration in Science and Technology

We are proud to sponsor and mentor our local FIRST Robotics team: #1559, Devil Tech. The teams have six weeks to design, plan and build a working robot to compete in a different challenge every year. This year's game emphasized teamwork in passing, throwing and shooting a ball around the playing field.

[Check out the video](#) of one of our matches (2:51)

FIRST Robotics' mission is to inspire young people to be science and technology leaders, by engaging them in exciting mentor-based programs that build science, engineering and technology skills, that inspire innovation, and that foster well-rounded life capabilities including self-confidence, communication, and leadership.

[More about FIRST Robotics](#)
[More about Team #1559, Devil Tech](#)



[Watch Team #1559, Devil Tech,](#)
[at the Finger Lakes Regional](#)
[FIRST Robotics Competition \(2:51\)](#)

~ Contact us

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