



## Greetings!

Welcome to New Scale News, your monthly update on micro motion systems and applications.

This month we're back from Photonics West and BiOS and excited about the energy in the industry.



In case you missed us or could not attend here's a quick look at our most popular demo. Please [email us](#) if you have questions about this or any of our [other products](#)!

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## Our most popular demo: Mini autofocus

**Tiny, "all-in-one" solution with embedded controller draws a big crowd**

The most popular demo in our Photonics West booth was the M3-FS miniature focus module with built-in controller. [Check out the one-minute video.](#)



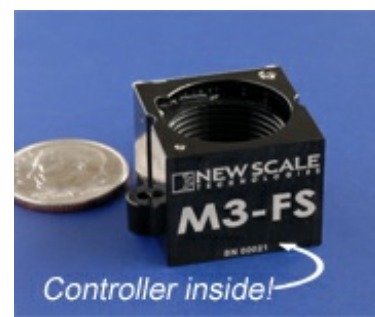
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## FAQs on focus module demo

Here are a few of the questions that we answered most often at Photonics West.

**Q. Where is the controller?**

**A. Inside the module!** This is not what people expect and sets a new standard for the industry. No more separate boxes or big printed circuit boards... **it's all inside.**



**Q. Is this a camera?**

**A. No, it's a lens motion system** that accepts standard lenses and fits over the image sensor (up to 17x17 mm) on your camera. With standard mounting holes it can be installed on a board camera as easily as you'd install a fixed lens holder. With the controller inside, it's simple to control using high-level ASCII commands over standard serial interface. [Read the application note for details.](#)

**Q. What size lens can it carry?**

**A. M16 directly, M12 with adapter (included),** and smaller sizes by special order. It supports lens weight up to 5 grams, or heavier if it will be used in a fixed orientation.

**Q. What is the range of travel?**

**A. Up to 1.5 mm.**

**Q. What is the difference between the M3-FS and the M3-F?**

**A. The M3-FS** has 3x better tilt and accuracy specifications, superior dynamic stability and longer life. It also takes larger lenses, up to M16. **The original M3-F** remains an economical choice for lower precision requirements or fixed camera positions. It takes lenses up to M12. The differences stem from an improved design with anodized aluminum vs. molded polymer, and an innovative ball bearing guide mechanism vs. pin-bushing guides.

**Q. How do I send commands to the module?**

**A.** Direct digital or analog servo input. You can use it as a SPI slave, use I2C or UART channels, or use the analog position servo. We provide a reference guide that explains how to connect, set up and communicate with the module through any of these methods - in addition to the USB adapter and software included in the developer's kit.

**Q. What's included in the Developer's Kit?**

**A.** An M3-FS-1.8-1.5-M16 focus module that accepts your M16 lens, an adapter to accept your M12 lens, cables, instructions, a USB adapter and New Scale Pathway™ software for evaluation and system development. [See the video for what's included and how to use it. \(3:35\)](#)



[Watch the detailed dev kit video \(3:35\)](#)

**Q. What is the price and where can I buy one?**

**A.** Developer's Kits are in stock at [Digi-Key](#) (\$864) and [Mouser](#) (\$900). You can also buy kits from many of our [local representatives.](#)

**Q. Where can I get more information?**

**A.** Visit our website:

- [Product information page with specifications](#)
- [Data sheet with drawings](#) (PDF)
- [CAD files and programming guide](#) (registration required)

Did we answer YOUR question? [Let us know!](#)



## 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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