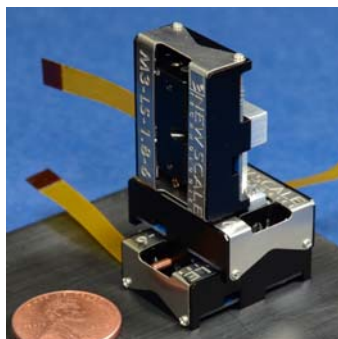


Products & Services



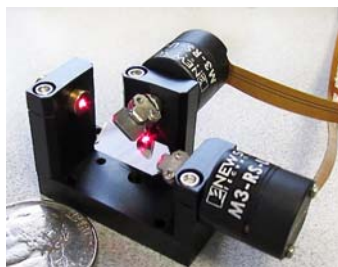
M3-LS Linear Smart Stages



M3-FS Focus Module



M3-RS Rotary Micro Stage



M3-RS Beam Steering System

M3 Smart Modules integrate our patented piezo motors, position sensors, guide mechanisms - and ALL drive and control electronics, with embedded firmware – in footprints small enough for use in hand-held products.

About Us

New Scale Technologies develops and manufactures the smallest and most precise closed-loop positioning solutions available. Our “all-in-one” M3 Smart Modules with built-in controllers are easy to integrate with handheld and portable instruments. We enable smaller, smarter imaging systems, scientific instruments, medical devices, aerospace and defense systems and more. Our customers achieve the fastest time to market with the lowest total cost.

Technology and Product Platforms

Since 2002, New Scale has secured 17 US patents and corresponding international patents in the development of piezoelectric motors and motion systems. These patents, combined with our proprietary know-how, enable us to create products with unmatched miniaturization, micrometer-scale resolution, fully-integrated micro-electronics and intelligent firmware.

Our M3 Smart Modules are “all-in-one” motion systems, with built-in electronics, that deliver sub-micrometer precision in the smallest smaller possible space. Each M3 Smart Module is a fully engineered solution that integrates our patented and propriety piezoelectric motor, drive, sensing, guide and control technologies.

Our standard M3 Smart Modules include **M3-LS Linear Stages**, **M3-RS Rotary Stages**, **M3-FS Focus Modules**, and **M3-L Linear Actuators**. These compact positioning modules deliver ten times better movement precision and ten times the force and range of motion of VCM or stepper motor solutions. All standard modules can be purchased as Developer's Kits from Digi-Key or Mouser.

Many custom M3 solutions are also in production at New Scale for specific customers with special requirements. These unique modules provide rotation or linear movement and were created by applying our deep expertise in piezo motors, position sensing, drive electronics, digital motion control and micro-mechatronic design.

Manufacturing

We manufacture modules for the medical, scientific instruments, aerospace and defense, and industrial markets in our New York facility. We are committed to fully understand, meet and exceed our customers' requirements through continuous improvement processes. Our manufacturing processes follow ISO guidelines and we have passed quality audits by major medical device manufacturers. Our facility is ITAR registered. For very high-volume markets, we work with manufacturing partners and technology licensees worldwide.

Development and Manufacturing Partners

- **ams** (www.ams.com) (SWX:AMS) is a strategic investor, development partner for high-performance analog ASICs, and worldwide sales partner. Together we have patented ICs that embody New Scale's motion system expertise, including precise, low-power drive circuits and system-on-a-chip magnetic encoders.
- **ALPS** (www.alps.co.jp) and **Tamron** (www.tamron.co.jp) are licensed high-volume manufacturing partners of New Scale's Squiggle® piezoelectric motors.
- **TDK-EPC** (www.epcos.com) is a licensed manufacturer of advanced piezoelectric ceramics that enable our motors to operate directly from battery voltage.



Milestones

- 2002** Founded by David Henderson
- 2003** First products ship
- 2004** First SQUIGGLE® motors ship
- 2005** First US patent: SQUIGGLE motor
Series A equity investment
- 2006** Tamron licenses SQUIGGLE motor
- 2007** Two additional US patents and
three industry innovation awards
- 2008** Series B equity investment from
austriamicrosystems (SWX:AMS)
Additional license agreements with
Tamron, ALPS and TDK-EPCOS
UTAF motor demonstrated
Single-chip driver ASIC introduced
- 2009** Named to “Best Companies to Work
for in New York” list
Rotary piezo motors demonstrated
- 2010** Reduced-voltage SQUIGGLE motor
First M3 Micro-Mechatronic
Modules delivered to customers
- 2011** UTAF focus module demonstrated
by tier-one phone camera supplier
M3-L module wins *Design News*
Golden Mousetrap award
- 2012** Two additional companies signed
as intellectual property licensees
10th anniversary, 10th US patent
- 2013** Two additional patents awarded
First custom micro beam steering
solutions delivered
- 2014** First M3-FS and M3-LS smart
motion modules delivered
15th US patent awarded
- 2015** Additional micro beam steering
solutions introduced
- 2016** 16th and 17th US patents awarded

Financial

New Scale is privately held entity. Our investors include our strategic partner ams, venture capital company Trillium Group, and several individuals including members of the Rochester Angel Network.

Management

■ David Henderson – CEO and Founder

David has more than 30 years of experience in engineering, technology innovation, new product introduction, worldwide market development and business operations. Before founding New Scale in 2002, he was director of positioning products at Burleigh Instruments (now EXFO) where he achieved 300% revenue growth with 20% EBITA over six years. He has prior experience as program manager and mechanical engineer with Contraves USA. He has published or presented numerous papers and holds several patents including patents for SQUIGGLE motors and systems. He has a BS in mechanical engineering and an MBA from Carnegie Mellon University.

■ Allison Leet - VP Finance and Planning

Allison joined New Scale in 2012 with more than 30 years of experience in finance and operations management. She was general manager, CFO and executive VP with full P&L responsibility for Corsair Display, growing the company from \$1.2M to \$8M over eight years. She has additional experience as CFO and executive VP for a medical real estate and construction company; controller for a machining company; a finance, quality and manufacturing supervisor at Delphi Automotive; and a finance and business process consultant. Allison has a BS in management science from Nazareth College and an MBA in business administration and finance from Rochester Institute of Technology.

■ Daniele Piazza, PhD - VP Research and Engineering

Daniele leads New Scale’s advanced motion systems development, creating the intellectual property (IP) portfolio, delivering new designs to licensees and supporting their world-wide commercialization activities. He is co-inventor of New Scale’s reduced-voltage SQUIGGLE motor and UTAF autofocus module. Prior to joining New Scale in 2007, Daniele co-founded a piezoelectric technology start up where he led research and development for product applications including energy harvesting, medical devices and automotive systems. He has an MS in physics from the University of Bologna and a PhD in electronic engineering from the University of Florence. He is co-author of more than 10 peer-reviewed scientific papers.

