

PRESS RELEASE – April 12, 2006

New SQUIGGLE motor OEM evaluation kit helps designers create smaller scientific instruments

Nanometer precision, high axial load, and off-power hold make piezoelectric motor ideal for integration into more compact lasers, microscopes and other instruments

VICTOR, NY - April 12, 2006 - New Scale Technologies today announced its SQ-100N motor OEM evaluation kit for designers of laser systems, microscopes, medical and laboratory equipment, and other scientific instruments.

The kit includes an SQ-100N piezoelectric SQUIGGLE motor with greater than 5 Newtons axial load capacity, a 2" x 3" MC-1000 motor controller card, power supply, computer control software, and all adapter cables. It allows OEM designers to quickly integrate and test the tiny ceramic SQUIGGLE motor in their current or next-generation instruments. Applications include:

- Internal alignment of laser systems
- Automated sample positioning in AFM, STM, and TEM microscopes
- Automated instrument calibration
- Micromanipulation
- Fluid dosing
- Vacuum, cryogenic and non-magnetic instruments

"Instrument designers are always pushed to pack more features into smaller, more compact systems. The SQUIGGLE motor lets them replace existing manual or stepper motor actuators with a smaller, higher-resolution device," said David Henderson, president of New Scale Technology.

SQ-100-N SQUIGGLE motor specifications:

- Stator Length 20.57 mm
- Stator Diameter 7.37 mm
- Mounting Diameter 12.45 mm
- Axial Load Capacity > 5 N
- Travel 15 to 50 mm (customizable)
- Speed 0.001 mm/s to 2 mm/s
- Start / Stop time 0.2 ms
- Position Resolution 20 nm (without encoder)
- Operating temperature -20 deg. C to +40 deg. C (vacuum, UHV and cryo motors available)

MC-1000 SQUIGGLE motor controller specifications:

- Dimensions 2 in x 3 in x 0.8 in
- Input voltage 24 V DC
- Maximum current 300 mA
- User interface RS-232 with GUI provided
- Closed loop control accepts input from analog position sensor or quadrature encoder (not included)

The SQ-100N motor is part of New Scale's full line of SQUIGGLE motors. It has smaller size than the SQ-100 with aluminum housing (which is designed to replace manual micrometers in positioning stages), and higher precision and push force than the tiny SQL Series motor (designed for consumer devices).

The MC-1000 controller generates the two-phase ultrasonic waveforms that drive the SQUIGGLE motor. A 24 V DC power supply with line cord is included in the OEM evaluation kit, along with cables to connect the motor to the controller card.

The SQ-100N SQUIGGLE motor OEM evaluation kit controller is available now starting at \$1100 for single units, with significant discounts for OEM quantities. Evaluation kits with motors for use in vacuum, UHV and cryogenic environments are also available.

New Scale can customize the motor and drive card to meet OEM design requirements.

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About the SQUIGGLE motor  
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The patented SQUIGGLE motor uses a threaded nut and screw to create precise linear movement in a very small space. Piezoelectric ceramics create ultrasonic vibrations in the nut, causing the screw to rotate and translate with high precision. SQUIGGLE motors are smaller, more precise, less expensive and more efficient than conventional electromagnetic motors. In addition, they use 90 percent fewer parts and require no gear reduction, which eliminates many failure modes. This ceramic motor is fundamentally compatible with high magnetic fields including MRI chambers. SQUIGGLE motors are used in nanotechnology research, microelectronics, optics, lasers, biotechnology, medical devices, aerospace and defense, fluid control, and office/consumer products including mobile phone cameras.

SQUIGGLE is a registered trademark of New Scale Technologies, Inc.

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About New Scale Technologies  
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New Scale Technologies, Inc. (www.newscaletech.com) makes miniature ceramic motors that enable our customers to create smaller products and research tools. Our piezoelectric SQUIGGLE motors are smaller, more efficient and more precise than conventional motors. With very few parts and no gears, this patented piezoelectric motor design uses ultrasonic vibrations to create precise linear motion. New Scale's miniature motors are compatible with extreme environments including vacuum, very low (sub-Kelvin) temperatures, and high magnetic fields.

