

PRESS RELEASE – May 25, 2006

New Scale debuts world's smallest motor

At 1.5 x 1.5 x 6 mm, latest piezoelectric SQUIGGLE motor is half the size of other micro-motors;
offers ten times the precision and push force

Victor, NY – May 25, 2006 – The latest SQUIGGLE motor from New Scale Technologies, Inc. is the smallest linear motor on the market, the company announced today. At 1.5 mm x 1.5 mm, the new SQL-1.5 piezoelectric motor is half the size of competing micro-motors. It also offers a 20 gram push force and sub-micron position resolution, performing ten times better than its closest competitor on both counts.

“The SQL-1.5 opens a whole new range of performance for miniature electronic systems such as phone cameras and medical devices,” said New Scale president David Henderson. “Designers of leading edge mobile devices finally have a precise, reliable linear motor that fits within their size and power budgets. They can add motion – and hence new capabilities – where they were unable to do so before.”

Typical applications: phone cameras and medical devices

The SQL-1.5 has been designed into next-generation auto focus and optical zoom assemblies by leading camera module developers, who support the top tier handset manufacturers. Focus and zoom capabilities have become an essential ingredient in the drive to deliver smaller, thinner handsets with the image quality of digital still cameras.

“Even by the most conservative handset sales forecasts, phone cameras alone represent a new market for one billion motors a year,” Henderson said. “The requirements of these cameras can not be met by current motor technologies.”

The SQL-1.5 is also of interest to medical device manufacturers for a new class of implantable drug pumps and micro-valves. The motor itself is tiny, but its high precision is what enables the most dramatic reduction in overall device size. It provides more precise valve control, which permits more concentrated medications and therefore smaller fluid reservoirs. The patented ceramic motor design generates no magnetic fields and can be made of non-ferrous materials, making it MRI-safe and image compatible.

SQL-1.5 SQUIGGLE Motor Specifications

- Motor body dimensions 1.5 mm x 1.5 mm x 6 mm
- Stroke 10 mm (customizable)
- Resolution Better than 100 nm
- Speed (no load) Up to 10 mm/s
- Force > 20 grams
- Typical input power (moving) 400 mW (< 40 V)
- Input power (stationery) 0 mW (0 V)

SQL-1.5 SQUIGGLE motor evaluation kit is \$950 and will be available to qualified OEMs for delivery in July 2006.

The evaluation kit includes an SQL-1.5 SQUIGGLE motor, drive electronics card, cables, and computer control software including an ActiveX command library.

About the SQUIGGLE motor

The patented SQUIGGLE motor design 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. The patented ultrasonic motor design has much lower power consumption than miniature electromagnetic motors and holds its position when the power is turned off, further conserving battery life. 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.

About New Scale Technologies

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 only seven 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.

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

Photo Caption: World's smallest linear motor on a fingertip - The SQL-1.5 SQUIGGLE motor has 20 gram push force and submicron resolution for miniature electronic products.

