

NSD-2101, NSE-5310

Developer's Kits for SQUIGGLE® Micro Motors, Drivers and TRACKER™ Position Sensors



1 General Description

Easy Evaluation of the World's Smallest Linear Motor, Driver and Position Encoder.

New Scale developer's kits allow fast evaluation of SQUIGGLE micro motors, NSD-2101 Drivers and TRACKER NSE-5310 position sensors. These kits demonstrate the performance of these tiny components – the smallest of their kind – and serve as both mechanical and electrical reference designs for integration into your system.

Developer's kits enable easy performance demonstration and system development with SQUIGGLE motors and TRACKER position sensors.



Figure 1. System Components

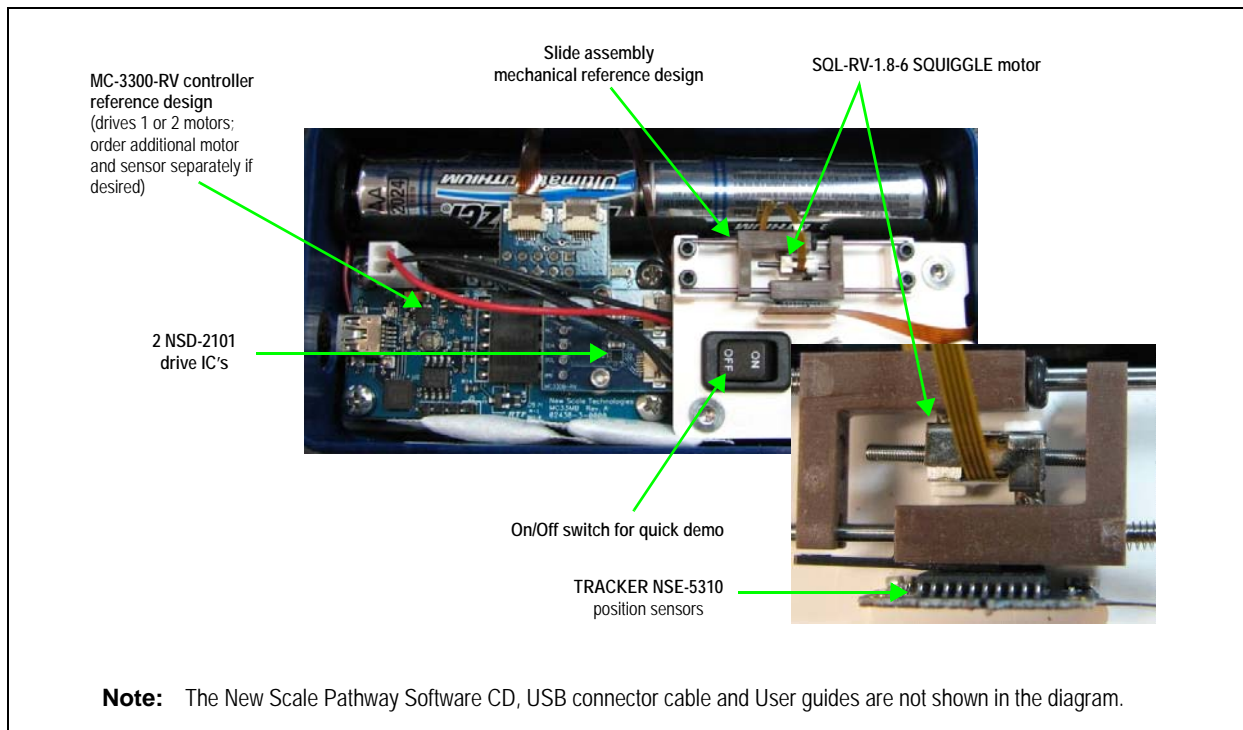
2 Key Features

- Easy push-button demonstration of motion
- PC interface and development software for detailed evaluation and system development
- Mechanical and electrical reference design for system integration
- Components removable for subsequent integration into your OEM designs

3 System Components

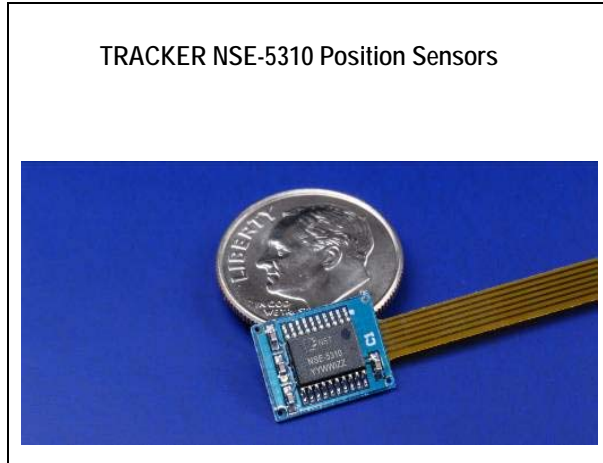
The developer's kits include the following components. Refer to the individual motor, sensor and controller data sheets for specifications.

- SQL-RV-1.8-6-12 SQUIGGLE motor
- TRACKER NSE-5310 position sensor
- MC-3300-RV motor controller with integrated NSD-2101 motor drive IC
- New Scale Pathway™ Software
- Connector cables and user guides



3.1 SQUIGGLE® Motor and NSD-2101 Driver

The world's smallest linear motor at 2.8 x 2.8 x 6 mm features 6 mm travel, 50 gram force stall force and 0.5 µm resolution. All kits integrate an SQL-RV-1.8 SQUIGGLE motor and NSD-2101 drive ASIC into a mechanical and electrical reference design.



3.2 TRACKER™ NSD-5310 Position Sensor

Magnetic sensor array with on-chip digital encoding has 0.5 µm resolution and size as small as 3.9 x 2.5 mm. Kit includes 11mm magnet. (TSSOP20 version Included in closed-loop kits only)

Closed-loop kits include a TRACKER NSD-5310 position sensor to evaluate the TRACKER and/or closed-loop SQUIGGLE motor performance.

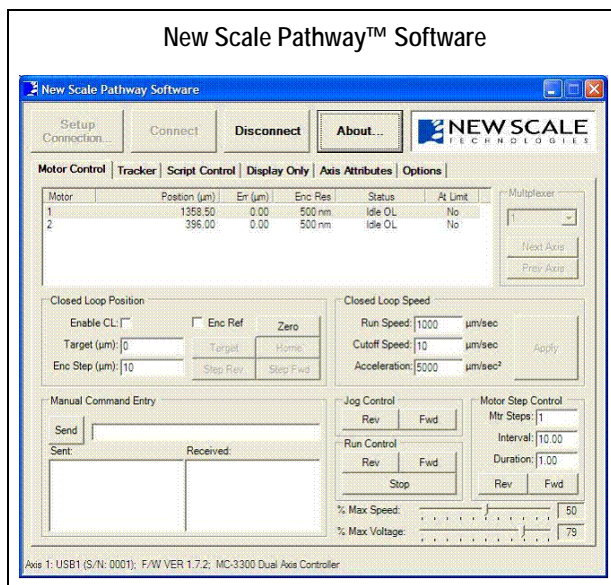
3.3 MC-3300-RV Motor Controller

A development platform and reference design integrating the NSD-2101 motor driver ASIC, this controller generates high frequency signals to drive the SQUIGGLE motor and accepts feedback from the TRACKER or other position sensor. It connects to your PC using the USB interface.

3.4 New Scale Pathway™ Software

New Scale Pathway™ Software is a flexible, sophisticated development tool with easy-to-use graphical user interface and intuitive scripting environment. It facilitates evaluation, system development and prototype test.

New Scale's user interface and ActiveX command library make it simple to operate and evaluate the motor and sensor. You can also build custom scripts using the intuitive scripting interface. These scripts and ActiveX commands can be used later in your embedded system design.



3.5 Mechanical Reference Design

The SQUIGGLE motor and NSD-5310 TRACKER sensor (if applicable) are integrated into a slide assembly demonstrating proper mounting, loading and alignment.

4 Design Assistance and Custom Product Development

Contact New Scale if you need assistance with a developer's kit or have questions about integrating SQUIGGLE motors or TRACKER position sensors into your application. We are pleased to review your OEM designs to ensure your success. Contact us regarding volume pricing, customized micro motors, and custom chip-scale packaging for position sensors. We also work with OEMs to design application-specific modules to fit your requirements.

Note: Developer's kits for operation in ambient environmental and light duty handling conditions only. Please contact us for custom design options requiring extreme environmental exposure or handling performance.

5 Ordering Information

The devices are available as the standard products shown in the table below.

Ordering Code	Description
DK-RV-1.8-33	SQUIGGLE motor open-loop developer's kit includes: <ul style="list-style-type: none"> ■ One SQL-RV-1.8-6-12 SQUIGGLE motor mounted in a reference integration slide assembly ■ One battery-operated MC-3300-RV motor controller (Includes two NSD-2101 Driver) ■ New Scale Pathway Software for Windows and USB connector cable
DK-RV-1.8-TRK-33	SQUIGGLE motor closed-loop / TRACKER position sensor developer's kit includes: <ul style="list-style-type: none"> ■ One SQL-RV-1.8-6-12 SQUIGGLE motor mounted in reference integration slide assembly ■ One NSE-5310 TRACKER position sensor, adapter, and 11mm magnet ■ One battery-operated MC-3300-RV motor controller (Includes two NSD-2101 Driver) ■ New Scale Pathway Software for Windows and USB connector cable
PCS-3V-K	Optional 3.3V AC power adapter
SQL-RV-1.8-6-12	Additional motor for use with developer's kit
TRK-1T02	Additional TRACKER sensor for use w/ DK-RV-1.8-TRK-33
Magnet 2mmx11mm	Additional magnet for TRACKER NSE-5310 sensor

Note: All products are RoHS compliant and Pb-free.
Buy our products or get free samples online at ICdirect: <http://www.austriamicrosystems.com/ICdirect>

Technical Support is available at <http://www.austriamicrosystems.com/Technical-Support>

For further information and requests, please contact us <mailto:sales@austriamicrosystems.com> or find your local distributor at <http://www.austriamicrosystems.com/distributor>

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