UNITED STATES

SECURITIES AND EXCHANGE COMMISSION

WASHINGTON, DC 20549

SCHEDULE 14D-9

SOLICITATION/RECOMMENDATION STATEMENT UNDER SECTION 14(d)(4)

OF THE SECURITIES EXCHANGE ACT OF 1934

NEXTEST SYSTEMS CORPORATION

(Name of Subject Company)

NEXTEST SYSTEMS CORPORATION

(Name of Persons Filing Statement)

Common Stock, \$0.001 par value

(Title of Class of Securities)

652909102

(CUSIP Number of Class of Securities)

Robin Adler

Chairman and Chief Executive Officer

Nextest Systems Corporation

875 Embedded Way

San Jose, California 95138

(408) 960-2400

(Name, Address and Telephone Number of Person

Authorized to Receive Notices and Communications

on Behalf of the Person(s) Filing Statement)

WITH A COPY TO:

Sheryl L.R. Miller

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San Francisco, California 94104

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x Check the box if the filing relates solely to preliminary communications made before the commencement of a tender offer.

The following is a copy of a joint press release issued on December 12, 2007 by Teradyne, Inc. and Nextest Systems Corporation

Teradyne to Acquire Nextest Systems Corp.

NORTH READING, Mass. (BUSINESS WIRE) Teradyne, Inc., (NYSE: TER) and Nextest Systems Corp. (NASDAQ: NEXT) today announced that they have signed a definitive agreement under which Teradyne will acquire Nextest. Teradyne is a world leader in System-On-Chip (SOC) test. Nextest s core business is the design and manufacture of flash memory test products.

As a result of the acquisition, Teradyne will expand its served market into the fast-growing flash memory test segment, estimated to be more than \$700 million in 2006. Of Nextest s \$95.8 million in revenue in calendar year 2006, flash memory tester sales totaled about \$80 million.

Under terms of the agreement approved by both boards of directors, Teradyne will pay \$20 per share in cash for all the outstanding shares of Nextest. The aggregate purchase price is expected to be approximately \$325 million. This is net of the cash acquired and includes the fair value of fully vested employee equity instruments and transaction costs. The acquisition is expected to be slightly dilutive to 2008 GAAP earnings per share and slightly accretive to 2008 non-GAAP earnings per share after excluding the purchase accounting impacts. The acquisition has been unanimously approved by the boards of directors of Teradyne and Nextest.

Joining Teradyne puts the market presence and superior reputation of the premier ATE provider behind all that we have accomplished, said Robin Adler, CEO of Nextest. Teradyne s rich experience as a technology innovator along with their strong customer relationships, will greatly accelerate our mission to lower test costs and to grow our business. We are very excited about the impact, potential and opportunity this combination provides to our employees, our stockholders, and most importantly, our customers.

Nextest brings us a solid flash memory test product line, plus a very capable development and technical support organization, said Michael Bradley, president and CEO of Teradyne. Their growing presence in the flash memory test market provides a strong addition to our System-On-Chip product offerings. This is one of the few business combinations in the test market where customers get products that are so complementary. Nextest s Magnum product line will be backed by Teradyne s global customer support team and will give us a powerful growth engine in the coming years.

The acquisition is subject to customary closing conditions, including the tender of at least a majority of the shares of Nextest common stock, the receipt of clearance under the Hart-Scott-Rodino Antitrust Improvements Act and the absence of a material adverse change with respect to Nextest.

Upon closing, which is expected in the first quarter of 2008, Nextest will be run as a business unit within Teradyne s Semiconductor Test Division

Webcast

A webcast to discuss the acquisition will be held on Wednesday, December 12, 2007 at 10 a.m. EST. Interested investors should access the webcast at www.teradyne.com and click on Investors at least five minutes before the call begins. Interested investors can also call 1-866-322-9525 (US and Canada) and 1-706-902-0224 (outside the US and Canada). The conference ID is 27984441. A replay will be available approximately two hours after the completion of the

call. The replay number in the U.S. & Canada is 1-800-642-1687 or 1-706-645-9291 outside US and Canada. The pass code for both numbers is 27984441. A replay will also be available on the Teradyne Web site www.teradyne.com. Click on Investors for a link to the replay. The replay will be available via phone and through the Web site until December 26, 2007.

About Teradyne, Inc.

Teradyne (NYSE:TER) is a leading supplier of Automatic Test Equipment used to test complex electronics used in the consumer electronics, automotive, computing, telecommunications, and aerospace and defense industries. In 2006, Teradyne had sales of \$1.36 billion from continuing operations, and currently employs about 3,600 people worldwide. For more information, visit www.teradyne.com. Teradyne (R) is a registered trademark of Teradyne, Inc. in the U.S. and other countries. All product names are trademarks of Teradyne, Inc. (including its subsidiaries).

About Nextest

Nextest is a low-cost leader in the design and manufacture of automatic test equipment (ATE) for Flash memory and System-On-Chip semiconductors. Nextest s products address the growing demand from manufacturers for ATE with increased throughput, functionality and reliability, while reducing time to market and cost of test. Nextest has shipped over 1,900 systems to more than 70 semiconductor companies worldwide. Further information is available at www.nextest.com

Notice To Investors

This announcement is neither an offer to purchase nor a solicitation of an offer to sell securities. The tender offer for outstanding shares of Nextest common stock described in this press release has not commenced. At the time the offer is commenced a direct, wholly-owned subsidiary of Teradyne will file a tender offer statement on Schedule TO with the Securities Exchange Commission and Nextest will file a solicitation/recommendation statement on Schedule 14D-9 with respect to the offer. **The tender offer statement (including an offer to purchase, a related letter of transmittal and other offer documents) and the solicitation/recommendation statement will contain important information that should be read carefully before any decision is made with respect to the tender offer.** Those materials will be made available to Nextest security holders at no expense to them by mailing requests to Investor Relations, 875 Embedded Way, San Jose, CA 95138 In addition, all of those materials (and all other offer documents filed with the Securities and Exchange Commission (SEC)) will be available at no charge on the SEC s Web site: www.sec.gov.

Safe Harbor Statement

The forward-looking statements included in this release are made only as of the date of publication. Except as otherwise required by law, Teradyne and Nextest disclaim any intention or obligation to update any forward-looking statements as a result of development occurring after the date of this press release.

This release contains forward-looking statements regarding the proposed acquisition of Nextest, the expected timetable for completing the transaction, future business prospects and market conditions and benefits and synergies of the transaction. Such statements are based on the current assumptions and expectations of Teradyne s and Nextest s management and are neither promises

nor guarantees. You can generally identify these forward-looking statements based on the context of the statements and by the fact that they use words such as will, anticipate, expect, project, intend, plan, believe, target and other words and terms of similar meaning in connect discussion of future operating or financial performance. There can be no assurance that management s estimates of our future results will be achieved. Important factors that could cause actual results to differ materially from those presently expected include: conditions affecting the markets in which Nextest operates; the uncertainty of regulatory approvals; the parties ability to satisfy the tender offer and merger agreement conditions and consummate the transaction; Teradyne s ability to successfully integrate Nextest s operations with its existing operations; the ability to realize anticipated synergies and cost savings; and other events, factors and risks previously and from time to time disclosed in filings with the SEC, including, but not limited to, Teradyne s annual report on Form 10-K for the fiscal year ended December 31, 2006 and Nextest s annual report on Form 10-K for the fiscal year ended June 30, 2007.

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