UNITED STATES SECURITIES AND EXCHANGE COMMISSION Washington, D.C. 20549

Amendment No. 1

to SCHEDULE TO

Tender Offer Statement Under Section 14(d)(1) or 13(e)(1) of the Securities Exchange Act of 1934

IRIDEX CORPORATION

(Name of Subject Company (Issuer) and Name of Filing Person (Offeror))

Common stock, Par Value \$0.01 Per Share (Title of Class of Securities)

462684101 (CUSIP Number of Class of Securities)

James H. Mackaness Chief Financial Officer and Chief Operating Officer 1212 Terra Bella Avenue Mountain View, CA 94043 (650) 940-4700 (Name, address and telephone number of person authorized to receive notices and communication on behalf of Filing Persons)

> Copy to: David J. Segre Michael A. Occhiolini Andrew D. Hoffman Wilson Sonsini Goodrich & Rosati Professional Corporation 650 Page Mill Road Palo Alto, CA 94304 (650) 493-9300

CALCULATION OF REGISTRATION FEE

Transaction Valuation* \$1,998,750 Amount of Filing Fee** \$272.63

- * Estimated for purposes of calculating the amount of the filing fee only, this amount is based on the purchase of 487,500 shares of common stock at the tender offer price of \$4.10 per share.
- ** The Amount of Filing Fee calculated in accordance with Rule 0-11(b) of the Securities Exchange Act of 1934, as amended, equals \$136.40 for each \$1,000,000 of the value of the transaction.
- Check the box if any part of the filing fee is offset as provided by Rule 0-11(a)(2) and identify the filing with which the offsetting fee was previously paid. Identify the previous filing by registration statement number, or the Form or Schedule and the date of its filing.

Amount Previously Paid: \$272.63 Form or Registration No.: Schedule TO Filing Party: IRIDEX Corporation Date Filed: November 7, 2012 • Check the box if the filing relates solely to preliminary communications made before the commencement of a tender offer.

Check the appropriate boxes below to designate any transaction to which the statement relates:

- third party tender offer subject to Rule 14d-1.
- ☑ issuer tender offer subject to Rule 13e-4.
- o going private transaction subject to Rule 13e-3.
- o amendment to Schedule 13D under Rule 13d-2.

Check the following box if the filing is a final amendment reporting the results of the tender offer: o

If applicable, check the appropriate box(es) below to designate the appropriate rule provision(s) relied upon:

- o Rule 13e-4(i) (Cross-Border Issuer Tender Offer)
- 0 Rule 14d-1(d) (Cross-Border Third-Party Tender Offer)

INTRODUCTION

IRIDEX Corporation, a Delaware corporation ("IRIDEX" or the "Company") hereby amends and supplements the Tender Offer Statement on Schedule TO originally filed with the Securities and Exchange Commission on November 7, 2012 (the "Schedule TO"). The Schedule TO relates to the offer by the Company to purchase up to 487,500 shares of its common stock, par value \$0.01 per share, at a purchase price of \$4.10 per share, net to the seller in cash, less any applicable withholding taxes and without interest, upon the terms and subject to the conditions set forth in Amendment No. 1 to the Offer to Purchase, dated November 13, 2012 ("Amendment No. 1 to the Offer to Purchase"), a copy of which is attached hereto as Exhibit (a)(1)(A)(i), in the Offer to Purchase dated November 7, 2012 (as amended by Amendment No. 1 to the Offer to Purchase, the "Offer to Purchase"), a copy of which was previously attached as Exhibit (a)(1)(A) to the Schedule TO, and in the related Letter of Transmittal (the "Letter of Transmittal"), a copy of which was previously attached as Exhibit (a)(1)(B) to the Schedule TO. This Schedule TO is intended to satisfy the reporting requirements of Rule 13e-4(c)(3) of the Securities Exchange Act of 1934, as amended.

The purpose of this Amendment No. 1 is to amend and supplement the Schedule TO to update the reference to the Offer to Purchase to include Amendment No. 1 to the Offer to Purchase, which incorporates by reference the Company's Current Report on Form 8-K filed on November 13, 2012. Only those items amended and supplemented are reported in this Amendment No. 1. Except as specifically provided herein, the information contained in the Schedule TO remains unchanged and this Amendment No. 1 does not modify any of the information previously reported on Schedule TO.

Item 11. Additional Information.

(b) The information set forth in Amendment No. 1 to the Offer to Purchase, a copy of which is filed as Exhibit (a)(1)(A)(i) hereto, as it may be amended or supplemented from time to time, is incorporated herein by reference.

Item 12. Exhibits.

(a)(1)(A)*	Offer to Purchase dated November 7, 2012.
(a)(1)(A)(i)**	Amendment No. 1 to the Offer to Purchase, dated November 13, 2012.
(a)(1)(B)*	Letter of Transmittal.
(a)(1)(C)*	Notice of Guaranteed Delivery.
(a)(1)(D)*	Letter to Brokers, Dealers, Commercial Banks, Trust Companies and Other Nominees dated November 7, 2012.
(a)(1)(E)*	Letter to Clients for use by Brokers, Dealers, Commercial Banks, Trust Companies and Other Nominees dated
	November 7, 2012.
(a)(1)(F)*	Guidelines for Certification of Taxpayer Identification Number on Substitute Form W-9.
(a)(1)(G)*	Press Release, dated November 7, 2012.
(a)(2)	Not Applicable.
(a)(3)	Not Applicable.
(a)(4)	Not Applicable.
(b)	Not Applicable.
(d)(1)	Form of Indemnification Agreement (incorporated by reference from Exhibit 10.1 to the Company's Registration
	Statement on Form SB-2 (No. 333-00320-LA), which was declared effective on February 15, 1996).
(d)(2)	1995 Director Option Plan (incorporated by reference from Exhibit 10.3 to the Company's Registration Statement
	on Form S-8 filed on August 3, 2004).
(d)(3)	1998 Stock Plan (incorporated by reference from the Company's definitive proxy statement on Schedule 14A filed
	on May 4, 2009).

(d)(4)	2005 Employee Stock Purchase Plan (incorporated by reference from appendix filed with the Company's Proxy
	Statement for the Company's 2004 Annual Meeting of Stockholders filed on April 30, 2004).
(d)(5)	2008 Equity Incentive Plan, as amended (incorporated by reference from the Company's definitive proxy
	statement on Schedule 14A filed on May 4, 2009).
(d)(6)	Form of 2008 Equity Incentive Plan Option Agreement (incorporated by reference from Exhibit 99.1 to the
	Company's Registration Statement on Form S-8 filed on November 21, 2008).
(d)(7)	Form of Stand-alone Stock Option Agreement (incorporated by reference to Exhibit 99.(d)(5) filed with the
	Company's Schedule TO filed on July 30, 2009).
(d)(8)	Change of Control Severance Agreement by and between the Company and James Mackaness, (incorporated by
	reference from Exhibit 10.8 to the Company's Form 10-K for the fiscal year ended January 3, 2009).
(d)(9)	Employment Agreement by and between the Company and Dominik Beck, dated August 16, 2011 (incorporated
	by reference from Exhibit 99.1 to the Company's Form 8-K filed on October 12, 2011).
(d)(10)	Executive Transition Agreement by and between the Company and Theodore A. Boutacoff (incorporated by
	reference from Exhibit 99.2 to the Company's Form 8-K filed on October 12, 2011).
(d)(11)	Form of 2008 Equity Incentive Plan Restricted Stock Award Agreement (incorporated by reference from
	Exhibit 10.1 to the Company's Form 10-Q for the fiscal quarter ended July 2, 2011).
(d)(12)	Form of 2008 Equity Incentive Plan Restricted Stock Unit Award Agreement (incorporated by reference from
	Exhibit 10.2 to the Company's Form 10-Q for the fiscal quarter ended July 2, 2011).
(g)	Not Applicable.
(h)	Not Applicable.

* Previously filed on Schedule TO on November 7, 2012.

** Filed herewith.

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SIGNATURE

After due inquiry and to the best of my knowledge and belief, I certify that the information set forth in this statement is true, complete and correct.

Date: November 13, 2012

IRIDEX CORPORATION

By: /s/ JAMES H. MACKANESS

Name: James H. Mackaness Title: Chief Financial Officer and Chief Operating Officer

Exhibit Index

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(h)	Not Applicable.

* Previously filed on Schedule TO on November 7, 2012.

** Filed herewith.



Amendment No. 1 to Offer to Purchase for Cash by IRIDEX CORPORATION of Up to 487,500 Shares of its Common Stock at a Purchase Price of \$4.10

THE OFFER, PRORATION PERIOD AND WITHDRAWAL RIGHTS WILL EXPIRE AT 5:00 P.M., NEW YORK CITY TIME, ON DECEMBER 7, 2012, UNLESS THE OFFER IS EXTENDED.

IRIDEX Corporation, a Delaware corporation (the "Company," "IRIDEX," "we," or "us"), is offering to purchase up to 487,500 shares of its common stock, par value \$0.01 per share (the "common stock"), at a purchase price of \$4.10 per share, net to the seller in cash, less any applicable withholding taxes and without interest, upon the terms and subject to the conditions described in this Amendment No. 1, the Offer to Purchase, dated November 7, 2012 (as amended by Amendment No. 1, the "Offer to Purchase"), and the related Letter of Transmittal (which together, as they may be amended and supplemented from time to time, constitute the "Offer"). Unless the context otherwise requires, all references to shares shall refer to the common stock of the Company.

We will purchase only shares properly tendered and not properly withdrawn. However, because of the "odd lot" priority, proration and conditional tender provisions described in the Offer to Purchase, we may not purchase all of the shares tendered if more than the number of shares we seek are properly tendered. We will return shares tendered that we do not purchase because of proration or conditional tenders to the tendering stockholders at our expense promptly after the Offer expires. See Section 3 of the Offer to Purchase.

Subject to certain limitations and legal requirements, we reserve the right to accept for payment, according to the terms and conditions of this Offer, up to an additional 2% of our issued and outstanding shares (or approximately 178,777 shares). See Sections 1 and 15 of the Offer to Purchase.

The Offer is not conditioned upon any minimum number of shares being tendered. The Offer is, however, subject to certain other conditions. See Section 7 of the Offer to Purchase.

The shares are listed and traded on the Nasdaq Global Market ("NASDAQ") under the symbol "IRIX". On November 12, 2012, the most recent practicable trading day before we commenced the Offer, the last reported sale price of the shares on NASDAQ was \$3.83 per share. Stockholders are urged to obtain current market quotations for the shares. See Section 8 of the Offer to Purchase.

Our Board of Directors has approved the Offer. However, neither we nor our Board of Directors, nor the Depositary, nor either of the Information Agents is making any recommendation to you as to whether to tender or refrain from tendering your shares. You must make your own decision as to whether to tender your shares and, if so, how many shares to tender. In doing so, you should read carefully the information in the Offer to Purchase and in the related Letter of Transmittal, including our reasons for making the Offer. See Section 2 of the Offer to Purchase. All of our directors and executive officers have advised us that they do not intend to tender any of their shares in the Offer. See Section 11 of the Offer to Purchase.

Neither the Securities and Exchange Commission nor any state securities commission has approved or disapproved of this transaction or passed upon the merits or fairness of such transaction or passed upon the adequacy or accuracy of the information contained in the Offer to Purchase. Any representation to the contrary is a criminal offense.

There will be no dealer manager for the Offer.

November 13, 2012

RECENT DEVELOPMENTS

On November 13, 2012, we filed a Current Report on Form 8-K that we have incorporated by reference into the Offer to Purchase announcing the resignation of Dominik Beck from the Board of Directors of IRIDEX and entry into an agreement and release and an ADEA waiver agreement and release between IRIDEX and Dr. Beck.

Where You Can Find More Information. We are subject to the informational filing requirements of the Exchange Act, and, accordingly, are obligated to file reports, statements and other information with the SEC relating to our business, financial condition and other matters. Information, as of particular dates, concerning directors and officers, their remuneration, options granted to them, the principal holders of our securities and any material interest of these persons in transactions with us is required to be disclosed in proxy statements distributed to our stockholders and filed with the SEC. We also have filed an Issuer Tender Offer Statement on Schedule TO with the SEC that includes additional information relating to the Offer.

These reports, statements and other information we file with the SEC can be inspected and copied at the Public Reference Room maintained by the SEC at 100 F Street, N.E., Room 1580, Washington, D.C. 20549, at prescribed rates. You may obtain information about the operation of the SEC's Public Reference Room by calling the SEC at 1-800-SEC-0330. The SEC also maintains a web site on the Internet at http://www.sec.gov that contains reports, proxy and information statements and other information regarding registrants that file electronically with the SEC.

Incorporation by Reference. The rules of the SEC allow us to "incorporate by reference" information into the Offer to Purchase, which means that we can disclose important information to you by referring you to another document filed separately with the SEC. The Offer incorporates by reference the documents listed below, including the financial statements and the notes related thereto contained in those documents that have been previously filed with the SEC. These documents contain important information about us.

SEC Filing (File No. 000-27598)Period or Date FiledAnnual Report on Form 10-K (including the information specifically
incorporated by reference from our definitive proxy statement on
Schedule 14A)Fiscal year ended December 31, 2011, filed March 30, 2012Quarterly Report on Form 10-QFiscal quarter ended March 31, 2012, filed May 7, 2012Quarterly Report on Form 10-QFiscal quarter ended June 30, 2012, filed August 7, 2012Quarterly Report on Form 10-QFiscal quarter ended September 30, 2012, filed November 5, 2012Quarterly Report on Form 10-QFiscal quarter ended September 30, 2012, filed November 5, 2012Quarterly Report on Form 10-QFiscal quarter ended September 30, 2012, filed November 5, 2012Current Reports on Form 8-KFiled January 4, 2012, February 6, 2012, February 21, 2012, June 15, 2012,
August 29, 2012, September 18, 2012 and November 13, 2012

Any statement contained in a document incorporated by reference into the Offer to Purchase shall be deemed to be modified or superseded to the extent such statement is modified or superseded in the Offer to Purchase. Any statement so modified or superseded shall not be deemed, except as so modified or superseded, to constitute a part of the Offer to Purchase.

You can obtain any of the documents incorporated by reference in the Offer to Purchase from us or from the SEC's web site at the address described above. Documents incorporated by reference are available from us without charge, excluding any exhibits to those documents. You may request a copy of these filings at no cost, by writing or telephoning us at: IRIDEX Corporation, Attention: Chief Financial Officer, 1212 Terra Bella Avenue, Mountain View, California 94043, Telephone: (650) 940-4700. Please be sure to include your complete name and address in your request. If you request any incorporated documents, we will mail them to you by first class mail, or another equally prompt means, within one business day after we receive your request. You can find additional information by visiting our website at: http://www.IRIDEX.com. Information contained on our website is not part of, and is not incorporated into, this Offer.

CAUTIONARY NOTE ON FORWARD-LOOKING STATEMENTS

The Offer to Purchase, including any documents incorporated by reference or deemed to be incorporated by reference, contains "forward-looking statements," which are statements relating to future events, future financial performance, strategies, expectations, and competitive environment. Words such as "may," "will," "should," "expects," "plans," "anticipates," "believes," "estimates," "predicts," "intends," "potential," "continue," or the negative of such terms and similar expressions, as well as statements in future tense, identify forward-looking statements.

You should not read forward-looking statements as a guarantee of future performance or results. They will not necessarily be accurate indications of whether or at what time such performance or results will be achieved. Forward-looking statements are based on information available at the time those statements are made and/or management's good faith belief at that time with respect to future events. Such statements are subject to risks and uncertainties that could cause actual performance or results to differ materially from those expressed in or suggested by the forward-looking statements. Important factors that could cause such differences include, but are not limited to:

- levels of future sales;
- long-term growth;
- market acceptance and adoption of our products and operating results;
- license revenue;
- gross margins;
- expenses;
- managing cash flows;
- general economic conditions and levels of international sales;
- tax and corporate strategy;
- effects of seasonality;
- FDA inspections;
- our current and future liquidity and capital requirements; and
- levels of future investment in research and development efforts.

These risks and uncertainties include risks related to our businesses as well as the factors relating to the transactions discussed in the Offer to Purchase. You should not place undue reliance on the forward-looking statements, which speak only as to the date of the Offer to Purchase or the date of documents incorporated by reference.



Except as may be required by law, we undertake no obligation to make any revision to the forward-looking statements contained in the Offer to Purchase, the accompanying Letter of Transmittal or in any document incorporated by reference into the Offer to Purchase or to update them to reflect events or circumstances occurring after the date of the Offer to Purchase.

In addition, please refer to our Annual Report on Form 10-K for the fiscal year ended December 31, 2011, our Quarterly Report on Form 10-Q for the quarterly period ended March 31, 2012, our Quarterly Report on Form 10-Q for the quarterly period ended September 30, 2012, and our Current Reports on Form 8-K filed January 4, 2012, February 6, 2012, February 21, 2012, June 15, 2012, August 29, 2012, September 18, 2012 and November 13, 2012, in each case as filed with the U.S. Securities and Exchange Commission (Commission File No. 000-27598), each of which is incorporated by reference herein, for additional information on risks and uncertainties that could cause actual results to differ materially from those described in the forward-looking statements or that may otherwise impact our company and business. See Section 10 of the Offer to Purchase. Any statement is modified or superseded in the Offer to Purchase. Any statement so modified or superseded shall not be deemed, except as so modified or superseded, to constitute a part of the Offer to Purchase.

Notwithstanding anything in the Offer to Purchase, the Letter of Transmittal or any document incorporated by reference into the Offer to Purchase, the safe harbor protections of the Private Securities Litigation Reform Act of 1995 do not apply to statements made in connection with a tender offer.

MISCELLANEOUS

Pursuant to Rule 13e-4(c)(2) under the Exchange Act, we have filed with the Commission an Issuer Tender Offer Statement on Schedule TO, which contains additional information with respect to the Offer. The Schedule TO, including the exhibits and any amendments and supplements thereto, may be examined, and copies may be obtained, at the same places and in the same manner as is set forth in Section 10 of the Offer to Purchase with respect to information concerning us.

The Offer to Purchase and accompanying Letter of Transmittal do not constitute an offer to purchase securities in any jurisdiction in which such offer is not permitted or would not be permitted. If we become aware of any jurisdiction where the making of the Offer or the acceptance of shares pursuant thereto is not in compliance with applicable law, we will make a good faith effort to comply with the applicable law where practicable. If, after such good faith effort, we cannot comply with the applicable law, the Offer will not be made to (nor will tenders be accepted from or on behalf of) the holders of shares in such jurisdiction.

You should only rely on the information contained in the Offer to Purchase or to which we have referred to you. We have not authorized any person to make any recommendation on behalf of us as to whether you should tender or refrain from tendering your shares in the Offer. We have not authorized any person to give any information or to make any representation in connection with the Offer other than those contained in the Offer to the Purchase or in the related Letter of Transmittal. If given or made, any recommendation or any such information or representation must not be relied upon as having been authorized by us, the Depositary or the Information Agents.

November 13, 2012

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The Letter of Transmittal, certificates for shares and any other required documents should be sent or delivered by each stockholder of the Company or his or her broker, dealer, commercial bank, trust company or other nominee to the Depositary as follows:

The Depositary for the Offer is:

Computershare Inc.

By Mail: Computershare Inc. c/o Voluntary Corporate Actions P.O. Box 43011 Providence, RI 02940-3011 By Overnight Courier: Computershare Inc. c/o Voluntary Corporate Actions 250 Royall Street, Suite V Canton, MA 02021

DELIVERY OF THE LETTER OF TRANSMITTAL TO AN ADDRESS OTHER THAN AS SET FORTH ABOVE WILL NOT CONSTITUTE A VALID DELIVERY TO THE DEPOSITARY.

Questions and requests for assistance or for additional copies of this Offer to Purchase, the Letter of Transmittal and the Notice of Guaranteed Delivery may be directed to the Information Agents at their respective telephone numbers and locations listed below. You may also contact your broker, dealer, commercial bank, trust company or other nominee for assistance concerning the Offer.

The Information Agents for the Offer are:

The Proxy Advisory Group, LLC 18 East 41st Street, Suite 2000 New York, NY 10017-6219 Banks and Brokers Call: (212) 616-2187 Allen & Caron Inc. 18200 Von Karman, Suite 780 Irvine, CA 92612 All Others Call Toll-free: (888) 740-7130

QuickLinks

CALCULATION OF REGISTRATION FEE INTRODUCTION

> <u>Item 11. Additional Information .</u> <u>Item 12. Exhibits .</u>

<u>SIGNATURE</u> Exhibit Index

<u>Exhibit (a)(1)(A)(i)</u>

RECENT DEVELOPMENTS CAUTIONARY NOTE ON FORWARD-LOOKING STATEMENTS MISCELLANEOUS