

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

SCHEDULE 13D

(Rule 13d-101)

INFORMATION TO BE INCLUDED IN STATEMENTS FILED PURSUANT
TO § 240.13d-1(a) AND AMENDMENTS THERETO FILED
PURSUANT TO § 240.13d-2(a)

Under the Securities Exchange Act of 1934
(Amendment No.)*

Ceradyne, Inc.

(Name of Issuer)

Common Stock, Par Value \$0.01 Per Share

(Title of Class of Securities)

156710105

(CUSIP Number)

Gregg M. Larson
Deputy General Counsel & Secretary
3M Company
3M Center
St. Paul, Minnesota 55144
(651) 733-2204

Copy to:

Christopher Austin
Cleary Gottlieb Steen & Hamilton LLP
One Liberty Plaza
New York City, NY 10006
(212) 225-2000

(Name, Address and Telephone Number of Person
Authorized to Receive Notices and Communications)

September 30, 2012

(Date of Event Which Requires Filing of this Statement)

If the filing person has previously filed a statement on Schedule 13G to report the acquisition that is the subject of this Schedule 13D, and is filing this schedule because of §§240.13d-1(e), 240.13d-1(f) or 240.13d-1(g), check the following box.

Note: Schedules filed in paper format shall include a signed original and five copies of the schedule, including all exhibits. See Rule 13d-7 for other parties to whom copies are to be sent.

* The remainder of this cover page shall be filled out for a reporting person's initial filing on this form with respect to the subject class of securities, and for any subsequent amendment containing information which would alter disclosures provided in a prior cover page.

The information required on the remainder of this cover page shall not be deemed to be "filed" for the purpose of Section 18 of the Securities Exchange Act of 1934 ("Act") or otherwise subject to the liabilities of that section of the Act but shall be subject to all other provisions of the Act (however, see the Notes).

CUSIP No. **156710105**

13D

1. Names of Reporting Persons
3M Company

2. Check the Appropriate Box if a Member of a Group (See Instructions)

(a)

(b)

3. SEC Use Only

4. Source of Funds (See Instructions)
OO (See Item 3)

5. Check if Disclosure of Legal Proceedings Is Required Pursuant to Items 2(d) or 2(e)

6. Citizenship or Place of Organization
Delaware

7. Sole Voting Power
0

Number of Shares Beneficially Owned by Each Reporting Person With

8. Shared Voting Power
1,556,540 (See Item 5)

9. Sole Dispositive Power
0

10. Shared Dispositive Power
1,556,540 (See Item 5)

11. Aggregate Amount Beneficially Owned by Each Reporting Person
1,556,540 (See Items 4 and 5)

12. Check if the Aggregate Amount in Row (11) Excludes Certain Shares (See Instructions)

13. Percent of Class Represented by Amount in Row (11)
6.5% (See Item 5)*

14. Type of Reporting Person (See Instructions)
CO

* The calculation is based on 24,047,187 shares of common stock of the Issuer outstanding as of September 28, 2012, which figure is based on information provided by the Issuer.

CUSIP No. **156710105**

13D

1. Names of Reporting Persons
Cyborg Acquisition Corporation

2. Check the Appropriate Box if a Member of a Group (See Instructions)

(a)

(b)

3. SEC Use Only

4. Source of Funds (See Instructions)
OO (See Item 3)

5. Check if Disclosure of Legal Proceedings Is Required Pursuant to Items 2(d) or 2(e)

6.	Citizenship or Place of Organization Delaware
7.	Sole Voting Power 0
Number of Shares Beneficially Owned by Each Reporting Person With	8. Shared Voting Power 1,556,540 (See Item 5)
	9. Sole Dispositive Power 0
	10. Shared Dispositive Power 1,556,540 (See Item 5)
11.	Aggregate Amount Beneficially Owned by Each Reporting Person 1,556,540 (See Items 4 and 5)
12.	Check if the Aggregate Amount in Row (11) Excludes Certain Shares (See Instructions) <input type="checkbox"/>
13.	Percent of Class Represented by Amount in Row (11) 6.5% (See Item 5)*
14.	Type of Reporting Person (See Instructions) CO

* The calculation is based on 24,047,187 shares of common stock of the Issuer outstanding as of September 28, 2012, which figure is based on information provided by the Issuer.

Item 1. Security and Issuer.

This statement on Schedule 13D (this "Schedule 13D") relates to the shares of common stock, par value \$0.01 per share (the "Shares"), of Ceradyne, Inc., a Delaware corporation ("Ceradyne" or the "Issuer"). The address of the principal executive office of the Issuer is 3169 Red Hill Avenue, Costa Mesa, California 92626.

The Reporting Persons have entered into a Joint Filing Agreement, dated October 10, 2012 (the "Joint Filing Agreement"), a copy of which is attached as Exhibit 1 hereto, pursuant to which the Reporting Persons have agreed to file this statement jointly in accordance with the provisions of Rule 13d-1(k)(1) of the Securities Exchange Act of 1934, as amended (the "Exchange Act").

Item 2. Identity and Background.

The persons filing this statement are (i) 3M Company ("3M"), a Delaware corporation, and (ii) Cyborg Acquisition Corporation, a Delaware corporation and a direct, wholly owned subsidiary of 3M ("Purchaser"). 3M and Purchaser are sometimes referred to collectively as the "Reporting Persons," and each as a "Reporting Person."

3M's shares are listed on the New York Stock Exchange, the Chicago Stock Exchange and the SWX Swiss Exchange. 3M is a diversified technology company with a global presence in the following businesses: industrial and transportation; health care; consumer and office; safety, security and protection services; display and graphics; and electro and communications. Most 3M products involve expertise in product development, manufacturing and marketing, and are subject to competition from products manufactured and sold by other technologically oriented companies. The principal offices of each of 3M and Purchaser are located at 3M Center, St. Paul, Minnesota 55144, and the telephone number at such principal executive offices is (651) 733-1110.

The name, business address, present principal occupation or employment and citizenship of each director and executive officer of each of 3M and Purchaser are set forth in Schedules A-1 and A-2 hereto and are incorporated herein by reference.

During the last five years, neither of the Reporting Persons, nor to the best of the Reporting Persons' knowledge, any person named in Schedules A-1 or A-2 attached hereto, has been (i) convicted in a criminal proceeding (excluding traffic violations or similar misdemeanors) or (ii) a party to a civil proceeding of a judicial or administrative body of competent jurisdiction as a result of which such person was or is subject to a judgment, decree or final order enjoining future violations of, or prohibiting or mandating activities subject to, federal or state securities laws or finding any violation with respect to such laws.

Item 3. Source and Amount of Funds or Other Consideration.

As a result of the execution of the Voting and Tender Agreement (as defined below), each of the Reporting Persons may be deemed to have acquired beneficial ownership of 1,556,540 Shares to the extent provided therein. The Voting and Tender Agreement was entered into as a condition to 3M's and Purchaser's willingness to enter into and perform their obligations under the Merger Agreement (as defined below). 3M and Purchaser requested that each Stockholder (as defined below) enter into the Voting and Tender Agreement, and each Stockholder agreed to do so in order to induce 3M and Purchaser to enter into, and in consideration of their entering into, the Merger Agreement. Neither Reporting Person paid any consideration to the Stockholders in connection with the execution and delivery of the Voting and Tender Agreement. The Voting and Tender Agreement is described in more detail below in Item 4 of this Schedule 13D.

The information set forth or incorporated by reference in Item 4 is incorporated by reference in this Item 3.

Item 4. Purpose of Transaction.

Merger Agreement

3M, Purchaser, and Ceradyne entered into an Agreement and Plan of Merger, dated September 30, 2012 (the "Merger Agreement"). Pursuant to the Merger Agreement, (i) Purchaser will commence a tender offer (the "Offer") to purchase all of the outstanding Shares at a purchase price of \$35.00 per Share (the "Offer Price"), without interest thereon and less any required withholding taxes and (ii) following the consummation of the Offer and subject to certain conditions, Purchaser will be merged with and into Ceradyne (the "Merger") with Ceradyne continuing as the surviving corporation and a direct, wholly owned subsidiary of 3M (the "Surviving Corporation"). The purpose of the Offer and the Merger (each as defined below) is to enable 3M to acquire control of Ceradyne by acquiring all of the outstanding Shares. 3M expects to fund the payments for the Shares validly tendered and not withdrawn (including those Shares subject to the Voting and Tender Agreement) through either a capital contribution or an intercompany loan from 3M to Purchaser. 3M will obtain such funds from cash on hand and/or cash generated from general corporate activities in the ordinary course of business. The Offer, the Merger and the other transactions contemplated by the Merger Agreement are subject to the satisfaction or waiver of certain conditions, including receipt of regulatory approvals, as set forth in the Merger Agreement.

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Pursuant to the terms of the Merger Agreement, the Issuer has granted Purchaser an irrevocable option (the "Top-Up Option") to purchase an aggregate number of newly issued Shares (the "Top-Up Option Shares") that, when added to the number of Shares owned by 3M and Purchaser at the time of such exercise, constitutes one Share more than 90% of the Shares then outstanding immediately after the issuance of the Top-Up Option Shares. The exercise of the Top-Up Option is subject to the terms and conditions set forth in the Merger Agreement, including there being sufficient authorized Shares available for issuance and 3M and Purchaser owning in the aggregate at least a majority of the Shares prior to the issuance of the Top-Up Option Shares. If the Top-Up Option is exercised by Purchaser, Purchaser is required, subject to the terms and conditions of the Merger Agreement, to effect a short-form merger under the General Corporation Law of the State of Delaware (the "DGCL").

Pursuant to the terms of the Merger Agreement, following the acceptance for payment by Purchaser pursuant to the Offer of more than fifty percent of the outstanding Shares, Purchaser shall be entitled to designate such number of directors of the Board of Directors of Ceradyne (the "Ceradyne Board") as will give Purchaser representation on the Ceradyne Board equal to at least that number of directors, rounded up to the next whole number, that is the product of the total number of directors on the Ceradyne Board (after giving effect to directors designated by Purchaser) multiplied by the percentage that the aggregate number of Shares owned by Purchaser or any other subsidiary of 3M bears to the total number of Shares issued and outstanding.

Upon consummation of the Merger, the directors of Purchaser shall be the initial directors of the Surviving Corporation and shall serve until the earlier of their resignation or removal or their respective successors are duly elected or appointed and qualified, as the case may be. In addition, upon completion of the Merger, the certificate of incorporation and bylaws of the Surviving Corporation will be amended and restated to become the certificate of incorporation and by-laws of Purchaser (except with respect to the name of the Surviving Corporation, which shall be "Ceradyne, Inc.").

Upon the consummation of the Offer, the Shares may become eligible for termination of registration pursuant to Section 12(g)(4) of the Exchange Act, and 3M may cause them to be deregistered. Upon the consummation of the Merger, the Shares will become eligible for such deregistration, and 3M will cause them to be deregistered. In addition, 3M will cause the Shares to be delisted from the NASDAQ Stock Market LLC.

The description of the Merger Agreement included in this Item 4 is qualified in its entirety by reference to the full text of the Merger Agreement, a copy of which is attached as Exhibit 2 hereto and incorporated herein by reference.

Voting and Tender Agreement

Concurrently with entering into the Merger Agreement, 3M and Purchaser entered into a Voting and Tender Agreement (the "Voting and Tender Agreement") with the directors and executive officers of Ceradyne in their capacity as stockholders of Ceradyne (collectively, the "Stockholders").

Pursuant to the Voting and Tender Agreement, the Stockholders agreed, among other things, to (i) tender in the Offer (and not withdraw) all Shares beneficially owned or thereafter acquired by them, (ii) vote such Shares in support of the Merger in the event stockholder approval is required to consummate the Merger pursuant to Section 251 of the DGCL and against any competing transaction, (iii) appoint the Reporting Persons as their proxies to vote such Shares in connection with the Merger Agreement, and (iv) not otherwise transfer any of their Shares. In addition, each such stockholder has granted 3M an option to acquire such Shares at the Offer Price in the event that Purchaser acquires Shares in the Offer and the Shares subject to the Voting and Tender Agreement are not tendered into the Offer as required pursuant to the terms thereof.

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The description of the Voting and Tender Agreement included in this Item 4 is qualified in its entirety by reference to the full text of the Voting and Tender Agreement, a copy of which is attached as Exhibit 3 hereto and incorporated herein by reference.

Other than as described in this Item 4, the Reporting Persons currently have no plans or proposals that relate to, or may result in, any of the matters listed in Items 4(a)-(j) of Schedule 13D.

Additional Information

The tender offer described in this document and the exhibits hereto has not yet commenced. This document and the exhibits hereto, and the description contained herein, are neither an offer to purchase nor a solicitation of an offer to sell shares of Ceradyne. At the time the tender offer is commenced, 3M and its wholly owned subsidiary, Purchaser, intend to file with the Securities and Exchange Commission (the "SEC") a Tender Offer Statement on Schedule TO containing an offer to purchase, a form of letter of transmittal and other documents relating to the tender offer, and Ceradyne intends to file with the SEC a Solicitation/Recommendation Statement on Schedule 14D-9 with respect to the tender offer. 3M, Purchaser and Ceradyne intend to mail these documents to the stockholders of Ceradyne. These documents will contain important information about the tender offer and stockholders of Ceradyne are urged to read them carefully when they become available. Stockholders of Ceradyne will be able to obtain a free copy of these documents (when they become available) and other documents filed by Ceradyne, 3M or Purchaser with the SEC at the website maintained by the SEC at www.sec.gov. In addition, stockholders will be able to obtain a free copy of these documents (when they become available) from the information agent named in the offer to purchase or from 3M.

Item 5. Interest in Securities of the Issuer.

The information set forth or incorporated by reference in Item 4 is incorporated by reference in this Item 5.

(a)-(b) Based on information provided by the Stockholders, the Stockholders beneficially own an aggregate of 1,556,540 Shares (all of which are subject to the Voting and Tender Agreement), representing approximately 6.5% of the outstanding Shares as of September 28, 2012. To the extent provided in the Voting and Tender Agreement, the Reporting Persons may be deemed to have shared voting and dispositive power over such Shares.

Except as set forth above, neither of the Reporting Persons beneficially owns any Shares, and, to the knowledge of the Reporting Persons, none of the persons listed on Schedules A-1 and A-2 hereto beneficially owns any Shares.

(c) To the knowledge of the Reporting Persons, and except as otherwise described in this Schedule 13D, neither the Reporting Persons nor any person set forth on Schedule A-1 or A-2 hereto has effected any transactions in the Shares during the past 60 days.

(d) To the knowledge of the Reporting Persons, and except as otherwise described in this Schedule 13D, no other person has the right to receive or the power to direct the receipt of dividends from, or the proceeds from the sale of, Shares disclosed herein.

(e) Not applicable.

Item 6. Contracts, Arrangements, Understandings or Relationships with Respect to Securities of the Issuer.

The descriptions of the (i) Merger Agreement and Voting and Tender Agreement in Item 4 and (ii) Joint Filing Agreement in Item 1 are incorporated by reference in this Item 6.

Neither the Reporting Persons nor, to the best knowledge of the Reporting Persons, any person set forth on Schedule A-1 or A-2 hereto, has any contracts, arrangements, understandings or relationships (legal or otherwise) with any other person with respect to any securities of the Issuer or its subsidiaries, other than the Merger Agreement, the Voting Agreement and the Joint Filing Agreement.

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Item 7. Material to be Filed as Exhibits.

Exhibit No.	Description of Exhibit
1	Joint Filing Agreement by and between 3M Company and Cyborg Acquisition Corporation, dated as of October 10, 2012
2	Agreement and Plan of Merger by and among 3M Company, Cyborg Acquisition Corporation and Ceradyne, Inc., dated as of September 30, 2012 (incorporated by reference to Exhibit 2.1 to the Current Report on Form 8-K filed by Ceradyne, Inc. on October 2, 2012)
3	Voting and Tender Agreement by and among 3M Company, Cyborg Acquisition Corporation and the stockholders party thereto, dated as of September 30, 2012 (incorporated by reference to Exhibit 10.1 to the Current Report on Form 8-K filed by Ceradyne, Inc. on October 2, 2012)

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SIGNATURE

After reasonable 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.

October 10, 2012
Date

3M Company

/s/ Gregg M. Larson
Signature

Gregg M. Larson/Deputy General Counsel and Secretary

Name/Title

Cyborg Acquisition Corporation

/s/ William R. Myers

Signature

William R. Myers/President and Director

Name/Title

ATTENTION

Intentional misstatements or omissions of fact constitute Federal Criminal Violations (See 18 U.S.C. 1001).

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SCHEDULE A-1

Directors and Executive Officers of 3M

Set forth below are the name, business address and current principal occupation or employment of each director and executive officer of 3M. Except as otherwise noted, positions specified are positions with 3M.

Name	Address	Principal Occupation or Employment	Citizenship
3M Board of Directors			
Linda G. Alvarado	3M Company 3M Center St. Paul, MN 55144	President and Chief Executive Officer, Alvarado Construction, Inc.	United States of America
Vance D. Coffman	3M Company 3M Center St. Paul, MN 55144	Retired Chairman of the Board and Chief Executive Officer, Lockheed Martin Corporation	United States of America
Michael L. Eskew	3M Company 3M Center St. Paul, MN 55144	Retired Chairman of the Board and Chief Executive Officer, United Parcel Service, Inc.	United States of America
W. James Farrell	3M Company 3M Center St. Paul, MN 55144	Retired Chairman and Chief Executive Officer, Illinois Tool Works Inc.	United States of America
Herbert L. Henkel	3M Company 3M Center St. Paul, MN 55144	Retired Chairman of the Board, Ingersoll-Rand plc	United States of America
Edward M. Liddy	3M Company 3M Center St. Paul, MN 55144	Partner, Clayton, Dubilier & Rice, LLC	United States of America
Robert S. Morrison	3M Company 3M Center St. Paul, MN 55144	Retired Vice Chairman of PepsiCo, Inc.	United States of America
Aulana L. Peters	3M Company 3M Center St. Paul, MN 55144	Retired Partner, Gibson, Dunn & Crutcher LLP	United States of America
Inge G. Thulin	3M Company 3M Center, 0220-14W-05 St. Paul, MN 55144	Chairman of the Board, President and Chief Executive Officer	United States of America and Sweden
Robert J. Ulrich	3M Company 3M Center St. Paul, MN 55144	Retired Chairman of the Board and Chief Executive Officer of Target Corporation	United States of America

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Name	Address	Principal Occupation or Employment	Citizenship
3M Executive Officers			

Julie L. Bushman	3M Company 3M Center, 220-14W-03 St. Paul, MN 55144	Executive Vice President, Safety & Graphics	United States of America
Joaquin Delgado	3M Company 3M Center, 220-14W-03 St. Paul, MN 55144	Executive Vice President, Health Care	United States of America and Spain
Nicholas C. Gangestad	3M Company 3M Center, 224-06-S-03 St. Paul, MN 55144	Vice President, Corporate Controller and Chief Accounting Officer	United States of America
Ian F. Hardgrove	3M Company 3M Center, 220-14W-02 St. Paul, MN 55144	Senior Vice President, Marketing, Sales and Communications	United States of America
Christopher D. Holmes	3M Company 3M Center, 220-14W-01 St. Paul, MN 55144	Senior Vice President, Corporate Supply Chain	United States of America
Michael A. Kelly	3M Company 3M Center, 220-14W-08 St. Paul, MN 55144	Executive Vice President, Electronics & Energy	United States of America
Roger H. Lacey	3M Company 3M Center, 0220-14E-11 St. Paul, MN 55144	Senior Vice President, Strategy and Corporate Development	United States of America
Marlene McGrath	3M Company 3M Center, 0220-14E-18 St. Paul, MN 55144	Senior Vice President, Human Resources and Interim General Counsel	Canada
David W. Meline	3M Company 3M Center, 0220-14E-15 St. Paul, MN 55144	Senior Vice President and Chief Financial Officer	United States of America
Frederick J. Palensky	3M Company 3M Center, 0220-14E-16 St. Paul, MN 55144	Executive Vice President, Research and Development and Chief Technology Officer	United States of America
Bradley T. Sauer	3M Company 3M Center, 0220-14E-14 St. Paul, MN 55144	Executive Vice President, Industrial	United States of America
H.C. Shin	3M Company 3M Center, 0220-14W-04 St. Paul, MN 55144	Executive Vice President, International Operations	United States of America

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<u>Name</u>	<u>Address</u>	<u>Principal Occupation or Employment</u>	<u>Citizenship</u>
Inge G. Thulin	3M Company 3M Center, 0220-14W-05 St. Paul, MN 55144	Chairman of the Board, President and Chief Executive Officer	United States of America and Sweden
Michael G. Vale	3M Company 3M Center, 0220-14E-13 St. Paul, MN 55144	Executive Vice President, Consumer	United States of America
John K. Woodworth	3M Company 3M Center, 220-14E-17 St. Paul, MN 55144	Senior Vice President, Corporate Supply Chain Operations	United States of America

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SCHEDULE A-2

Executive Officers and Directors of Cyborg Acquisition Corporation

Set forth below are the name, business address and current principal occupation or employment of each director and executive officer of Cyborg Acquisition Corporation. Except as otherwise noted, positions specified are positions with 3M.

<u>Name</u>	<u>Business Address</u>	<u>Principal Occupation or Employment</u>	<u>Citizenship</u>
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William R. Myers	3M Company 3M Center, Building 504-01-01 Oakdale, MN 55128	Vice President and General Manager, Energy and Advanced Materials Division President and Director of Cyborg Acquisition Corporation	United States of America
Carlye S. Landin	3M Company 3M Center, St. Paul, MN 55144	Counsel Secretary of Cyborg Acquisition Corporation	United States of America
Steven A. Rinta	3M Company 3M Center, St. Paul, MN 55144	Finance Manager, Energy and Advanced Materials Division Treasurer of Cyborg Acquisition Corporation	United States of America

JOINT FILING AGREEMENT

In accordance with Rule 13d-1(k)(1) under the Securities Exchange Act of 1934, as amended, 3M Company, a Delaware corporation, and Cyborg Acquisition Corporation, a Delaware corporation, agree to the joint filing of (1) a statement on Schedule 13D, including any amendments thereto (the "Schedule 13D"), and (2) any Form 3 or Form 4 that may be required, in each case, with respect to the common stock, par value \$0.01 per share, of Ceradyne, Inc., a Delaware corporation, and further agree that this Agreement be included as an exhibit to the Schedule 13D.

This Agreement may be executed in two or more counterparts, each of which shall be deemed to be an original, but all of which together shall constitute one and the same instrument.

Date: October 10, 2012

3M Company

By: /s/ Gregg M. Larson
Name: Gregg M. Larson
Title: Deputy General Counsel and Secretary

Cyborg Acquisition Corporation

By: /s/ William R. Myers
Name: William R. Myers
Title: President and Director
