

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

SCHEDULE 14A

Proxy Statement Pursuant to Section 14(a) of the
Securities Exchange Act of 1934
(Amendment No.)

Filed by the Registrant

Filed by a Party other than the Registrant

Check the appropriate box:

- Preliminary Proxy Statement
 Confidential, for Use of the Commission Only (as permitted by Rule 14a-6(e)(2))
 Definitive Proxy Statement
 Definitive Additional Materials
 Soliciting Material Pursuant to §14a-11(c) or Rule 14a-12

AtriCure, Inc.

(Name of Registrant as Specified In Its Charter)

(Name of Person(s) Filing Proxy Statement, if other than the Registrant)

Payment of Filing Fee (Check the appropriate box):

- No fee required
- Fee computed on table below per Exchange Act Rules 14a-6(i)(1) and 0-11.
- Title of each class of securities to which transaction applies:

 - Aggregate number of securities to which transaction applies:

 - Per unit price or other underlying value of transaction computed pursuant to Exchange Act Rule 0-11 (set forth the amount on which the filing fee is calculated and state how it was determined):

 - Proposed maximum aggregate value of transaction:

 - Total fee paid:

- Fee paid previously with preliminary materials.
- Check box if any part of the fee is offset as provided by Exchange Act Rule 0-11(a)(2) and identify the filing for which the offsetting fee was paid previously. Identify the previous filing by registration statement number, or the Form or Schedule and the date of its filing.
- Amount previously paid:

 - Form, Schedule or Registration Statement No.:

 - Filing Party:

 - Date Filed:

- _____

***** Exercise Your *Right* to Vote *****
**Important Notice Regarding the Availability of Proxy Materials for the
Stockholder Meeting to Be Held on May 24, 2017**

ATRICURE, INC.

ATRICURE INC.
ATTN: JEANETTE YACUCCI
7555 INNOVATION WAY
MASON, OH 45040

0000330374_I R1.0.1.15

Meeting Information

Meeting Type: Annual Meeting
For holders as of: March 27, 2017
Date: May 24, 2017 **Time:** 9:00 AM EDT
Location: Corporate Offices of AtriCure
7555 Innovation Way
Mason, Ohio 45040

You are receiving this communication because you hold shares in the above named company.

This is not a ballot. You cannot use this notice to vote these shares. This communication presents only an overview of the more complete proxy materials that are available to you on the Internet. You may view the proxy materials online at www.proxyvote.com or easily request a paper copy (see reverse side).

We encourage you to access and review all of the important information contained in the proxy materials before voting.

See the reverse side of this notice to obtain proxy materials and voting instructions.

— **Before You Vote** —
How to Access the Proxy Materials

Proxy Materials Available to VIEW or RECEIVE:

1. Notice & Proxy Statement 2. Annual Report

How to View Online:

Have the information that is printed in the box marked by the arrow → XXXX XXXX XXXX XXXX (located on the following page) and visit: www.proxyvote.com.

How to Request and Receive a PAPER or E-MAIL Copy:

If you want to receive a paper or e-mail copy of these documents, you must request one. There is NO charge for requesting a copy. Please choose one of the following methods to make your request:

- 1) BY INTERNET: www.proxyvote.com
- 2) BY TELEPHONE: 1-800-579-1639
- 3) BY E-MAIL*: sendmaterial@proxyvote.com

* If requesting materials by e-mail, please send a blank e-mail with the information that is printed in the box marked by the arrow → XXXX XXXX XXXX XXXX (located on the following page) in the subject line.

Requests, instructions and other inquiries sent to this e-mail address will NOT be forwarded to your investment advisor. Please make the request as instructed above on or before May 10, 2017 to facilitate timely delivery.

— **How To Vote** —

Please Choose One of the Following Voting Methods

Vote In Person: Many stockholder meetings have attendance requirements including, but not limited to, the possession of an attendance ticket issued by the entity holding the meeting. Please check the meeting materials for any special requirements for meeting attendance. At the meeting, you will need to request a ballot to vote these shares.

Vote By Internet: To vote now by Internet, go to www.proxyvote.com. Have the information that is printed in the box marked by the arrow → XXXX XXXX XXXX XXXX available and follow the instructions.

Vote By Mail: You can vote by mail by requesting a paper copy of the materials, which will include a proxy card.

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Voting items

The Board of Directors recommends you vote FOR the following:

1. Authority to elect as Directors the following ten (10) nominees.

Nominees

01 Michael H. Carrel	02 Mark A. Collar	03 Scott W. Drake	04 Regina E. Groves	05 B. Kristine Johnson
06 Richard M. Johnston	07 Elizabeth D. Krell, PhD	08 Mark R. Lanning	09 Sven A. Wehrwein	10 Robert S. White

The Board of Directors recommends you vote FOR proposals 2, 3 and 4.

2. Proposal to ratify the appointment of Deloitte & Touche LLP as independent registered public accounting firm of the Company for the year ending December 31, 2017.
3. Advisory vote on the compensation of our named executive officers as disclosed in the proxy statement for the 2017 Annual Meeting.
4. Proposal to amend the AtriCure, Inc. 2014 Stock Incentive Plan to increase the number of authorized shares by 850,000 and change the terms of non-employee director equity grants.

NOTE: THIS PROXY WILL BE VOTED AS DIRECTED OR, IF NO CONTRARY DIRECTION IS INDICATED, WILL BE VOTED AS FOLLOWS: (1) FOR THE ELECTION OF THE NOMINATED DIRECTORS; (2) FOR THE RATIFICATION OF THE APPOINTMENT OF DELOITTE & TOUCHE LLP AS INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM FOR THE YEAR ENDING DECEMBER 31, 2017; (3) FOR THE APPROVAL OF THE COMPENSATION OF OUR NAMED EXECUTIVE OFFICERS AS DISCLOSED IN THE PROXY STATEMENT FOR THE 2017 ANNUAL MEETING; (4) FOR THE APPROVAL OF THE AMENDMENT TO THE ATRICURE, INC. 2014 STOCK INCENTIVE PLAN AND (5) IN THE DISCRETION OF THE PROXY HOLDERS ON SUCH OTHER MATTERS AS MAY COME BEFORE THE MEETING. PLEASE SIGN, DATE AND PROMPTLY RETURN THIS PROXY IN THE ENCLOSED RETURN ENVELOPE, WHICH IS POSTAGE PREPAID IF MAILED IN THE UNITED STATES.

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ATRICURE INC.
 ATTN: JEANETTE YACUCCI
 7555 INNOVATION WAY
 MASON, OH 45040

VOTE BY INTERNET - www.proxyvote.com

Use the Internet to transmit your voting instructions and for electronic delivery of information up until 11:59 P.M. Eastern Time the day before the cut-off date or meeting date. Have your proxy card in hand when you access the web site and follow the instructions to obtain your records and to create an electronic voting instruction form.

ELECTRONIC DELIVERY OF FUTURE PROXY MATERIALS

If you would like to reduce the costs incurred by our company in mailing proxy materials, you can consent to receiving all future proxy statements, proxy cards and annual reports electronically via e-mail or the Internet. To sign up for electronic delivery, please follow the instructions above to vote using the Internet and, when prompted, indicate that you agree to receive or access proxy materials electronically in future years.

VOTE BY PHONE - 1-800-890-8903

Use any touch-tone telephone to transmit your voting instructions up until 11:59 P.M. Eastern Time the day before the cut-off date or meeting date. Have your proxy card in hand when you call and then follow the instructions.

VOTE BY MAIL

Mark, sign and date your proxy card and return it in the postage-paid envelope we have provided or return it to Vote Processing, c/o Broadridge, 51 Mercedes Way, Edgewood, NY 11717.

TO VOTE, MARK BLOCKS BELOW IN BLUE OR BLACK INK AS FOLLOWS:

KEEP THIS PORTION FOR YOUR RECORDS
 DETACH AND RETURN THIS PORTION ONLY

THIS PROXY CARD IS VALID ONLY WHEN SIGNED AND DATED.

	For All	Withhold All	For All Except											
The Board of Directors recommends you vote FOR the following:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	To withhold authority to vote for any individual nominee(s), mark "For All Except" and write the number(s) of the nominee(s) on the line below.										
1. Authority to elect as Directors the following ten (10) nominees:														
<table border="0"> <tr> <td>01 Michael H. Carrel</td> <td>02 Mark A. Collier</td> <td>03 Scott M. Drake</td> <td>04 Regina E. Groves</td> <td>05 B. Kristine Johnson</td> </tr> <tr> <td>06 Richard M. Johnston</td> <td>07 Elizabeth D. Kroll, PhD</td> <td>08 Mark R. Lanning</td> <td>09 Sven A. Wehrwein</td> <td>10 Robert S. White</td> </tr> </table>	01 Michael H. Carrel	02 Mark A. Collier	03 Scott M. Drake	04 Regina E. Groves	05 B. Kristine Johnson	06 Richard M. Johnston	07 Elizabeth D. Kroll, PhD	08 Mark R. Lanning	09 Sven A. Wehrwein	10 Robert S. White				
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The Board of Directors recommends you vote FOR proposals 2, 3 and 4.	For	Against	Abstain											
2. Proposal to ratify the appointment of Deloitte & Touche LLP as independent registered public accounting firm of the Company for the year ending December 31, 2017.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	NOTE: THIS PROXY WILL BE VOTED AS DIRECTED OR, IF NO CONTRARY DIRECTION IS INDICATED, WILL BE VOTED AS FOLLOWS: (1) FOR THE ELECTION OF THE NOMINATED DIRECTORS; (2) FOR THE RATIFICATION OF THE APPOINTMENT OF DELLOITTE & TOUCHE LLP AS INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM FOR THE YEAR ENDING DECEMBER 31, 2017; (3) FOR THE APPROVAL OF THE COMPENSATION OF OUR NAMED EXECUTIVE OFFICERS AS DISCLOSED ON THE PROXY STATEMENT FOR THE 2017 ANNUAL MEETING; (4) FOR THE APPROVAL OF THE AGREEMENT TO THE ATRICURE, INC. 2014 STOCK INCENTIVE PLAN AND (5) IN THE DISCRETION OF THE PROXY HOLDERS ON SUCH OTHER MATTERS AS MAY COME BEFORE THE MEETING. PLEASE SIGN, DATE AND PROMPTLY RETURN THIS PROXY IN THE ENCLOSED RETURN ENVELOPE, WHICH IS POSTAGE PREPAID IF MAILED IN THE UNITED STATES.										
3. Advisory vote on the compensation of our named executive officers as disclosed in the proxy statement for the 2017 Annual Meeting.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>											
4. Proposal to amend the Atracure, Inc. 2014 Stock Incentive Plan to increase the number of authorized shares by 650,000 and change the terms of non-employee director equity grants.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>											
For address change/comments, mark here. (see reverse for instructions)	Yes	No	<input type="checkbox"/>											
Please indicate if you plan to attend this meeting	<input type="checkbox"/>	<input type="checkbox"/>												
Please sign exactly as your name(s) appear(s) herein. When signing as attorney, executor, administrator, or other fiduciary, please give full title as such. Joint owners should each sign personally. All holders must sign. If a corporation or partnership, please sign in full corporate or partnership name by authorized officer.														
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>											
Signature [PLEASE SIGN WITHIN BOX]	Date	Signature (Joint Owners)	Date											

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ANNUAL MEETING OF STOCKHOLDERS OF

ATRICURE, INC.

MAY 24, 2017

**IMPORTANT NOTICE REGARDING INTERNET AVAILABILITY OF PROXY MATERIALS
FOR THE ANNUAL MEETING TO BE HELD ON MAY 24, 2017.**

**You are receiving this communication because you hold shares in the above company,
and the materials you should review before you cast your vote are now available.**

**The proxy statement and annual report to security holders are available at:
<https://ir.articure.com/phoenix.zhtml?c=189981&p=proxy>**

**Please sign, date and mail your proxy card in the
envelope provided as soon as possible.**

ATRICURE, INC.
2017 ANNUAL MEETING OF STOCKHOLDERS
THIS PROXY IS SOLICITED ON BEHALF OF THE BOARD OF DIRECTORS

The undersigned stockholder of AtriCure, Inc., a Delaware corporation, hereby acknowledges receipt of the Notice of Annual Meeting of Stockholders and Proxy Statement, each dated April 12, 2017, and hereby appoints Michael H. Carrel and M. Andrew Wade, or either of them, as proxy and attorney-in-fact, with full power of substitution, on behalf and in the name of the undersigned to represent the undersigned at the 2017 Annual Meeting of Stockholders of AtriCure, Inc. to be held on May 24, 2017 at 9:00 a.m. (EDT) at AtriCure's offices located at 7555 Innovation Way, Mason, Ohio 45040, and at any postponement or adjournment thereof, and to vote all shares of common stock which the undersigned would be entitled to vote if then and there personally present, on the matters set forth on the reverse side and in their discretion with respect to such other business as may properly come before such Annual Meeting or at any postponement or adjournment thereof in accordance with and as described in the Notice and Proxy Statement for the Annual Meeting.

THIS PROXY WILL BE VOTED AS RECOMMENDED BY THE BOARD OF DIRECTORS UNLESS A CONTRARY CHOICE IS SPECIFIED.

PLEASE SIGN, DATE AND RETURN PROMPTLY IN THE ENCLOSED ENVELOPE.

Address change/comments:

(If you noted any Address Changes and/or Comments above, please mark corresponding box on the reverse side.)

(Continued and to be signed on reverse side)