UNITED STATES SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

FORM S-8 REGISTRATION STATEMENT

UNDER
THE SECURITIES ACT OF 1933

Restoration Robotics, Inc.

| (Exact na | me of Registrant as specified in its charter) |
|---|--|
| Delaware (State or other jurisdiction of incorporation or organization) | 06-1681204 (I.R.S. Employer Identification Number |
| 128 Baytech Drive San Jose, California (Address of Principal Executive Offices) | 95134 (Zip Code) |
| 2 | 2017 Incentive Award Plan 017 Employee Stock Purchase Plan (Full Title of the Plan) |
| | Ryan Rhodes resident and Chief Executive Officer Restoration Robotics, Inc. 128 Baytech Drive San Jose, California 95134 (408) 883-6888 p code, and telephone number, including area code, of agent for service) |
| | Copies to: |

Brian J. Cuneo, Esq. B. Shayne Kennedy, Esq. Latham & Watkins LLP 140 Scott Drive Menlo Park, CA 94025 Telephone: (650) 328-4600

Facsimile: (650) 463-2600

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, a smaller reporting company, or an emerging growth company. See the definitions of "large accelerated filer," "accelerated filer," "smaller reporting company" and "emerging growth company" in Rule 12b-2 of the Exchange Act.

| Large accelerated filer Non-accelerated filer | | Accelerated filer Smaller reporting company Emerging growth company | |
|--|--|---|--|
|--|--|---|--|

If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 7(a)(2)(B) of the Securities Act. \Box

| | | Proposed | Proposed | |
|--|---------------|----------------|-------------------|------------------|
| | Amount | Maximum | Maximum | |
| Title of Securities | To Be | Offering Price | Aggregate | Amount of |
| To Be Registered | Registered(1) | Per Share(2) | Offering Price(2) | Registration Fee |
| Common Stock, \$0.0001 par value per share | 1,627,080(3) | \$0.51 | \$829,810.80 | 100.58 |

- (1) Pursuant to Rule 416(a) promulgated under the Securities Act of 1933, as amended (the "Securities Act"), this registration statement shall also cover any additional shares of the Registrant's common stock that become issuable under the 2017 Incentive Award Plan (the "2017 Plan"), by reason of any stock dividend, stock split, recapitalization or similar transaction effected without the Registrant's receipt of consideration which would increase the number of outstanding shares of the Registrant's common stock.
- (2) Estimated solely for the purpose of calculating the amount of the registration fee pursuant to Rule 457(h) and Rule 457(c) promulgated under the Securities Act. The offering price per share and the aggregate offering price for shares reserved for future issuance under the 2017 Plan are based on the average of the high and the low price of the Registrant's common stock as reported on The Nasdaq Global Market on May 13, 2019.
- (3) Represents the additional shares of common stock available for future issuance under the Registrant's 2017 Plan resulting from an annual increase as of January 1, 2019.

Proposed sale to take place as soon after the effective date of the registration statement as awards under the plans are exercised and/or vest.

EXPLANATORY NOTE

This Registration Statement on Form S-8 is being filed for the purpose of registering an additional 1,627,080 shares of Restoration Robotics, Inc.'s (the "Registrant") common stock issuable under the 2017 Plan, as a result of the operation of an automatic annual increase provision therein, for which Registration Statements of the Registrant on Form S-8 (File Nos. 333-220993 and 333-223448) are effective.

INCORPORATION BY REFERENCE OF CONTENTS OF REGISTRATION STATEMENT ON FORM S-8

Pursuant to Instruction E of Form S-8, the contents of the Registration Statements on Form S-8 filed with the Securities and Exchange Commission on October 17, 2017 and March 5, 2018 (File Nos. 333-220993 and 333-223448) are incorporated by reference herein.

Item 8. Exhibits.

Reference is made under this Item 8 to the exhibit index included in this Registration Statement.

EXHIBIT INDEX

| Exhibit | | Incorporated by Reference | | Filed <u>Herewith</u> | |
|---------------|---|---------------------------|----------|--------------------------|---|
| Number Number | Exhibit Description | Form | Date | Number | |
| 4.1 | Amended and Restated Certificate of Incorporation. | 8-K | 10-17-17 | 3.1 | |
| 4.2 | Amended and Restated Bylaws. | 8-K | 10-17-17 | 3.2 | |
| 4.3 | Form of Common Stock Certificate. | S-1/A | 9-18-17 | 4.2 | |
| 5.1 | Opinion of Latham & Watkins LLP. | | | | X |
| 23.1 | Consent of independent registered public accounting firm. | | | | X |
| 23.2 | Consent of Latham & Watkins LLP (included in Exhibit 5.1). | | | | X |
| 24.1 | Power of Attorney. Reference is made to the signature page to the Registration Statement. | | | | X |
| 99.1# | 2017 Incentive Award Plan. | S-8 | 10-17-17 | 99.7 | |
| 99.2# | Form of Stock Option Grant Notice and Stock Option Agreement under the 2017 Incentive Award Plan. | S-1/A | 9-18-17 | 10.26 | |
| 99.3# | Form of Restricted Stock Award Grant Notice and Restricted Stock Award Agreement under the 2017 Incentive Award Plan. | S-1/A | 9-18-17 | 10.27 | |
| 99.4# | Form of Restricted Stock Unit Award Grant Notice and Restricted Stock Unit Award Agreement under the 2017 Incentive Award Plan. | S-1/A | 9-18-17 | 10.28 | |
| 99.5# | 2017 Employee Stock Purchase Plan. | S-8 | 10-17-17 | 99.11 | |

[#] Indicates management contract or compensatory plan.

SIGNATURES

Pursuant to the requirements of the Securities Act of 1933, the Registrant certifies that it has reasonable grounds to believe that it meets all of the requirements for filing on Form S-8 and has duly caused this registration statement to be signed on its behalf by the undersigned, thereunto duly authorized, in San Jose, California, on this 15th day of May, 2019.

Restoration Robotics, Inc.

By: /s/ Ryan Rhodes

Ryan Rhodes

President and Chief Executive Officer

POWER OF ATTORNEY

KNOW ALL PERSONS BY THESE PRESENTS, that each person whose signature appears below does hereby constitute and appoint Ryan Rhodes and Mark Hair and each of them, with full power of substitution and full power to act without the other, his or her true and lawful attorney-in-fact and agent to act for him or her in his or her name, place and stead, in any and all capacities, to sign any and all amendments (including post-effective amendments) to this registration statement, and to file this registration statement, with all exhibits thereto, and other documents in connection therewith, with the Securities and Exchange Commission, granting unto said attorneys-in-fact and agents, and each of them, full power and authority to do and perform each and every act and thing requisite and necessary to be done in order to effectuate the same as fully, to all intents and purposes, as they or he or she might or could do in person, hereby ratifying and confirming all that said attorneys-in-fact and agents, or any of them, may lawfully do or cause to be done by virtue hereof.

Pursuant to the requirements of the Securities Act of 1933, as amended, this registration statement has been signed by the following persons in the capacities and on the date indicated.

| Signature | Title | Date |
|---|---|--------------|
| /s/ Ryan Rhodes Ryan Rhodes | President, Chief Executive Officer and Director (Principal Executive Officer) | May 15, 2019 |
| /s/ Mark Hair Mark Hair | Chief Financial Officer (Principal Financial and Accounting Officer) | May 15, 2019 |
| /s/ Frederic Moll Frederic Moll, M.D. | Chairman and Director | May 15, 2019 |
| /s/ Jeffrey Bird Jeffrey Bird, M.D., Ph.D. | Director | May 15, 2019 |
| /s/ Gil Kliman Gil Kliman, M.D. | Director | May 15, 2019 |
| /s/ Keith Sullivan Keith Sullivan | Director | May 15, 2019 |

| /s/ Craig Taylor Craig Taylor | Director | May 15, 2019 |
|----------------------------------|----------|--------------|
| /s/ Shelley Thunen | Director | May 15, 2019 |
| Shelley Thunen | | |

LATHAM & WATKINS LLP

May 15, 2019

Restoration Robotics, Inc. 128 Baytech Drive San Jose, CA 95134

Re: Registration Statement on Form S-8; 1,627,080 shares of Common Stock of

Restoration Robotics, Inc., par value \$0.0001 per share

Ladies and Gentlemen:

We have acted as special counsel to Restoration Robotics, Inc., a Delaware corporation (the "Company"), in connection with the registration by the Company of 1,627,080 shares of common stock of the Company, par value \$0.0001 per share (the "Shares"), issuable under the Company's 2017 Incentive Award Plan (the "2017 Plan").

The Shares are included in a registration statement on Form S-8 under the Securities Act of 1933, as amended (the "Act"), filed with the Securities and Exchange Commission (the "Commission") on May 15, 2019 (the "Registration Statement"). This opinion is being furnished in connection with the requirements of Item 601(b)(5) of Regulation S-K under the Act, and no opinion is expressed herein as to any matter pertaining to the contents of the Registration Statement or the related prospectus, other than as expressly stated herein with respect to the issue of the Shares.

As such counsel, we have examined such matters of fact and questions of law as we have considered appropriate for purposes of this letter. With your consent, we have relied upon certificates and other assurances of officers of the Company and others as to factual matters without having independently verified such factual matters. We are opining herein as to the General Corporation Law of the State of Delaware (the "DGCL"), and we express no opinion with respect to any other laws.

Menlo Park, California 94025

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Subject to the foregoing and the other matters set forth herein, it is our opinion that, as of the date hereof, when the Shares shall have been duly registered on the books of the transfer agent and registrar therefor in the name or on behalf of the purchasers and have been issued by the Company against payment therefor (not less than par value) in the circumstances contemplated by the 2017 Plan, assuming in each case that the individual issuances, grants or awards under the 2017 Plan are duly authorized by all necessary corporate action and duly issued, granted or awarded and exercised in accordance with the requirements of law and the 2017 Plan (and the agreements and awards duly adopted thereunder and in accordance therewith), the issue and sale of the Shares will have been duly authorized by all necessary corporate action of the Company, and the Shares will be validly issued, fully paid and nonassessable. In rendering the foregoing opinion, we have assumed that the Company will comply with all applicable notice requirements regarding uncertificated shares provided in the DGCL.

This opinion is for your benefit in connection with the Registration Statement and may be relied upon by you and by persons entitled to rely upon it pursuant to the applicable provisions of the Act. We consent to your filing this opinion as an exhibit to the Registration Statement. In giving such consent, we do not thereby admit that we are in the category of persons whose consent is required under Section 7 of the Act or the rules and regulations of the Commission thereunder.

Very truly yours,

/s/ Latham & Watkins LLP

CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

We have issued our report dated March 20, 2019 with respect to the consolidated financial statements of Restoration Robotics, Inc. included in the Annual Report on Form 10-K for the year ended December 31, 2018, which are incorporated by reference in this Registration Statement. We consent to the incorporation by reference of the aforementioned report in this Registration Statement.

/s/ GRANT THORNTON LLP

Denver, Colorado May 15, 2019