UNITED STATES SECURITIES AND EXCHANGE COMMISSION

WASHINGTON, DC 20549

FORM S-8

REGISTRATION STATEMENT UNDER THE SECURITIES ACT OF 1933

TACTILE SYSTEMS TECHNOLOGY, INC.

(Exact name of registrant as specified in its charter)

Delaware 41-1801204

(State of incorporation)

(IRS Employer Identification No.)

1331 Tyler Street NE, Suite 200 Minneapolis, Minnesota 55413 (612) 355-5100

(Address, including zip code, and telephone number, including area code, of registrant's principal executive offices)

2016 EQUITY INCENTIVE PLAN 2016 EMPLOYEE STOCK PURCHASE PLAN

(Full title of the plans)

Copy to:

Gerald R. Mattvs **Chief Executive Officer** Tactile Systems Technology, Inc. 1331 Tyler Street NE, Suite 200 Minneapolis, MN 55413 (612) 355-5100

Jonathan R. Zimmerman Faegre Baker Daniels LLP 2200 Wells Fargo Center 90 South Seventh Street Minneapolis, MN 55402-1425 (612) 766-7000

(Name, address and telephone number, including area code, of agent for service)

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

Large accelerated filer Accelerated filer

Non-accelerated filer x (Do not check if a smaller reporting company)

n

Smaller reporting company

CALCULATION OF REGISTRATION FEE

| Title of Securities to be Registered | Amount to be Registered(1) | Proposed Maximum Offering Price Per Share | Proposed Maximum Aggregate Offering Price | Amount of Registration Fee |
|---|-------------------------------|---|--|----------------------------------|
| Common Stock, par value \$0.001 per share | | | | |
| 2016 Equity Incentive Plan | 841,686(2) | 16.30(4) \$ | 13,719,481.80 | \$ 1,590.09 |
| 2016 Employee Stock Purchase Plan | 168,337(3) | 16.30(4) \$ | 2,743,893.10 | \$ 318.02 |
| TOTAL: | | | | \$ 1,908.11 |

- (1) Pursuant to Rule 416(a) of 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 2016 Equity Incentive Plan (the "2016 Plan") and the 2016 Employee Stock Purchase Plan (the "ESPP") by reason of any stock dividend, stock split, recapitalization or other similar transaction effected without receipt of consideration that increases the number of the Registrant's outstanding shares of Common Stock.
- Represents 841,686 shares of Common Stock reserved for future issuance under the 2016 Plan. (2)
- Represents 168,337 shares of Common Stock reserved for future issuance under the ESPP. (3)
- Estimated in accordance with Rule 457(h) and 457(c) of the Securities Act. Such computation is based on the average of the high and low prices as reported on the Nasdaq Global Market on February 21, 2017.

EXPLANATORY NOTE

This Registration Statement on Form S-8 is being filed for the purpose of registering 841,686 shares of the common stock of Tactile Systems Technology, Inc. (the "Registrant") to be issued pursuant to the Tactile Systems Technology, Inc. 2016 Equity Incentive Plan (the "2016 Plan") and 168,337 shares of the Registrant's common stock to be issued pursuant to the Tactile Systems Technology, Inc. 2016 Employee Stock Purchase Plan (the "ESPP"). In accordance with Section E of the General Instructions to Form S-8, the Registration Statement previously filed with the Securities and Exchange Commission relating to the 2016 Plan and ESPP (File No. 333-212704) is incorporated by reference herein.

PART II

INFORMATION REQUIRED IN THE REGISTRATION STATEMENT

Item 3. Incorporation of Documents by Reference

The following documents filed by the Registrant with the Commission are incorporated by reference into this Registration Statement:

- (1) The Registrant's Annual Report on Form 10-K for the year ended December 31, 2016, filed with the Commission on February 27, 2017 including all material incorporated by reference therein (File No. 001-37799).
- (2) The description of the Registrant's Common Stock which is contained in the Registrant's Registration Statement on Form 8-A (File No. 001-37799) filed with the Commission on June 10, 2016 under the Securities Exchange Act of 1934, as amended (the "Exchange Act"), including any amendment or report filed for the purpose of updating such description.

All documents, reports and definitive proxy or information statements filed by the Registrant pursuant to Sections 13(a), 13(c), 14 or 15(d) of the Exchange Act (other than Current Reports furnished under Items 2.02 or 7.01 of Form 8-K and exhibits furnished on such form that relate to such items) on or after the date of this Registration Statement and prior to the filing of a post-effective amendment to this Registration Statement that indicates that all securities offered have been sold or that deregisters all securities then remaining unsold shall be deemed to be incorporated by reference in this Registration Statement and to be part hereof from the date of filing of such documents.

Any statement contained in a document incorporated or deemed to be incorporated by reference herein shall be deemed to be modified or superseded for purposes of this Registration Statement to the extent that a statement contained herein or in any subsequently filed document that also is deemed to be incorporated by reference herein modifies or supersedes such statement. Any such statement so modified or superseded shall not be deemed, except as so modified or superseded, to constitute a part of this Registration Statement.

Item 4. Description of Securities

Not applicable.

Item 5. Interests of Named Experts and Counsel

Not applicable.

Item 6. Indemnification of Directors and Officers

The Registrant's amended and restated certificate of incorporation limits the liability of the Registrant's directors to the fullest extent permitted by Delaware law. Delaware law provides that directors of a corporation will not be personally liable for monetary damages for breach of their fiduciary duties as directors, except for liability for any:

- · breach of their duty of loyalty to the corporation or its stockholders;
- · act or omission not in good faith or that involves intentional misconduct or a knowing violation of law;
- · unlawful payment of dividends or redemption of shares as provided in Section 174 of the Delaware General Corporation Law; or

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 \cdot transaction from which the directors derived an improper personal benefit.

These limitations of liability do not apply to liabilities arising under federal securities laws and do not affect the availability of equitable remedies such as injunctive relief or rescission.

The Registrant's amended and restated certificate of incorporation, amended and restated bylaws, and indemnification agreements that it intends to enter into with each of its directors and executive officers provide that: (i) the Registrant will indemnify its directors and officers for serving it in those capacities or for serving other business enterprises at the Registrant's request, to the fullest extent permitted by Delaware law; (ii) the Registrant may, in its discretion, indemnify employees and agents in those circumstances where indemnification is permitted by applicable law; (iii) the Registrant is required to advance expenses, as incurred, to its directors and officers in connection with defending a proceeding, except that such directors or officers shall undertake to repay such advances if it is ultimately determined that such person is not entitled to indemnification; (iv) the rights conferred in the Registrant's amended and restated bylaws are not exclusive, and the Registrant is authorized to enter into indemnification agreements with the Registrant's directors, officers, employees and agents and to obtain insurance to indemnify such persons; and (v) no repeal or modification of the indemnification provisions in the Registrant's amended and restated certificate of incorporation and amended and restated bylaws will diminish or adversely affect the rights of any director, officer, employee or agent under those provisions in respect of any occurrence or matter arising prior to any such repeal or modification. In addition, Section 145(g) of the Delaware General Corporation Law also permits the Registrant to secure insurance on behalf of any officer, employee or other

agent for any liability arising out of his or her actions in connection with their services to the Registrant, regardless of whether the Registrant's bylaws permit indemnification. The Registrant maintains a directors' and officers' liability insurance policy.

The Registrant entered into indemnification agreements with each of its directors and executive officers. These indemnification agreements may require the Registrant, among other things, to indemnify each such director or executive officer for certain expenses, including attorneys' fees, judgments, fines and settlement amounts incurred by him or her in any action or proceeding arising out of his or her service as one of the Registrant's directors or executive officers.

Insofar as indemnification for liabilities arising under the Securities Act may be permitted to directors, officers and controlling persons of the Registrant pursuant to the foregoing provisions, or otherwise, the Registrant has been advised that in the opinion of the Securities and Exchange Commission this indemnification is against public policy as expressed in the Securities Act and is therefore unenforceable.

Item 7. Exemption From Registration Claimed

Not applicable.

Item 8. Exhibits

See Exhibit Index following Signatures.

Item 9. Undertakings

- (A) The undersigned Registrant hereby undertakes:
 - (1) To file, during any period in which offers or sales are being made, a post-effective amendment to this Registration Statement:
 - (i) To include any prospectus required by Section 10(a)(3) of the Securities Act.
 - (ii) To reflect in the prospectus any facts or events arising after the effective date of the Registration Statement (or the most recent post-effective amendment thereof) which, individually or in the aggregate, represent a fundamental change in the information set forth in the Registration Statement. Notwithstanding the foregoing, any increase or decrease in volume of securities offered (if the total dollar value of securities offered would not exceed that which was registered) and any deviation from the low or high end of the estimated maximum offering range may be reflected in the form of prospectus filed with the Commission pursuant to Rule 424(b) if, in the aggregate, the changes in volume and price represent no more than a 20% change in the maximum aggregate offering price set forth in the "Calculation of Registration Fee" table in the effective Registration Statement.

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(iii) To include any material information with respect to the plan of distribution not previously disclosed in the Registration Statement or any material change to such information in the Registration Statement.

Provided, however, that paragraphs (A)(1)(i) and (A)(1)(ii) do not apply if the information required to be included in a post-effective amendment by those paragraphs is contained in reports filed with or furnished to the Commission by the Registrant pursuant to Section 13 or Section 15(d) of the Exchange Act that are incorporated by reference in the Registration Statement.

- (2) That, for the purpose of determining any liability under the Securities Act, each such post-effective amendment shall be deemed to be a new registration statement relating to the securities offered herein, and the offering of such securities at that time shall be deemed to be the initial *bona fide* offering thereof.
- (3) To remove from registration by means of a post-effective amendment any of the securities being registered which remain unsold at the termination of the offering.
- (B) The undersigned Registrant hereby undertakes that, for purposes of determining any liability under the Securities Act, each filing of the Registrant's annual report pursuant to Section 13(a) or Section 15(d) of the Exchange Act (and, where applicable, each filing of an employee benefit plan's annual report pursuant to Section 15(d) of the Exchange Act) that is incorporated by reference in the Registration Statement shall be deemed to be a new registration statement relating to the securities offered herein, and the offering of such securities at that time shall be deemed to be the initial *bona fide* offering thereof.
- (C) Insofar as indemnification for liabilities arising under the Securities Act may be permitted to directors, officers and controlling persons of the Registrant pursuant to the foregoing provisions, or otherwise, the Registrant has been advised that in the opinion of the Commission such indemnification is against public policy as expressed in the Securities Act and is, therefore, unenforceable. In the event that a claim for indemnification against such liabilities (other than the payment by the Registrant of expenses incurred or paid by a director, officer or controlling person of the Registrant in the successful defense of any action, suit or proceeding) is asserted by such director, officer or controlling person in connection with the securities being registered, the Registrant will, unless in the opinion of its counsel the matter has been settled by controlling precedent, submit to a court of appropriate jurisdiction the question whether such indemnification by it is against public policy as expressed in the Securities Act and will be governed by the final adjudication of such issue.

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SIGNATURES

Pursuant to the requirements of the Securities Act, 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,

TACTILE SYSTEMS TECHNOLOGY, INC.

y: /s/ Gerald R. Mattys

Gerald R. Mattys
Chief Executive Officer

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POWERS OF ATTORNEY

We, the undersigned officers and directors of Tactile Systems Technology, Inc., hereby constitute Gerald R. Mattys, Lynn L. Blake and Robert J. Folkes, as the true and lawful attorneys with full power to them, and each of them singly, to sign for us and in our names, in the capacities indicated below, the Registration Statement on Form S-8 filed herewith and any amendments, including post-effective amendments, to said Registration Statement, and generally to do all such things in our name and behalf in our capacities as officers and directors to enable Tactile Systems Technology, Inc. to comply with the provisions of the Securities Act of 1933 and all requirements of the Securities and Exchange Commission, hereby ratifying and confirming our signatures as they may be signed by our said attorneys, or any of them, to said Registration Statement and any and all amendments thereto.

Pursuant to the requirements of the Securities Act of 1933, this Registration Statement has been signed by the following persons in the capacities held on the dates indicated.

| Signature | Title | Date | |
|--|--|-------------------|--|
| /s/ Gerald R. Mattys | Chief Executive Officer and Director | February 27, 2017 | |
| Gerald R. Mattys | (principal executive officer) | • | |
| | | | |
| /s/ Lynn L. Blake | Chief Financial Officer | February 27, 2017 | |
| Lynn L. Blake | (principal financial and accounting officer) | | |
| /s/ Peter H. Soderberg | Chairman of the Board of Directors | February 27, 2017 | |
| Peter H. Soderberg | Chamilian of the Board of Directors | February 27, 2017 | |
| Teter 11. Soderberg | | | |
| /s/ William W. Burke | Director | February 27, 2017 | |
| William W. Burke | | | |
| /-/ I. J. C. D | D' cata | Ed 27 2017 | |
| /s/ Jordan S. Davis Jordan S. Davis | Director | February 27, 2017 | |
| Jordan 3. Davis | | | |
| /s/ Richard Nigon | Director | February 27, 2017 | |
| Richard Nigon | | | |
| //W . W D . | D | 7.1 07.0047 | |
| /s/ Kevin H. Roche | Director | February 27, 2017 | |
| Kevin H. Roche | | | |
| /s/ Stephen I. Shapiro | Director | February 27, 2017 | |
| Stephen I. Shapiro | | , | |
| | | | |
| //s/ Zubeen Shroff | Director | February 27, 2017 | |
| Zubeen Shroff | | | |
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EXHIBIT INDEX

| Exhibit | Description | Manner of Filing |
|---------|--|--|
| 4.1 | Specimen of common stock certificate | Incorporated by reference to Exhibit 4.1 to |
| | | Amendment No. 2 to the Registrant's Registration |
| | | Statement on Form S-1 (File No. 333-209115), |
| | | filed with the Commission on May 6, 2016 |
| 4.2 | Investors' Rights Agreement, dated September 14, 2012 | Incorporated by reference to Exhibit 4.2 to |
| | | Amendment No. 3 to the Registrant's Registration |
| | | Statement on Form S-1 (File No. 333-209115), |
| | | filed with the Commission on June 9, 2016 |
| 4.3 | 2016 Equity Incentive Plan | Incorporated by reference to Exhibit 10.11 to |
| | | Amendment No. 3 to the Registrant's Registration |
| | | Statement on Form S-1 (File No. 333-209115), |
| | | filed with the Commission on June 9, 2016 |
| 4.4 | Form of Non-Qualified Stock Option Agreement under 2016 Equity | Incorporated by reference to Exhibit 10.12 to |

| | Incentive Plan | Amendment No. 3 to the Registrant's Registration Statement on Form S-1 (File No. 333-209115), filed with the Commission on June 9, 2016) | |
|------|--|--|--|
| 4.5 | Form of Incentive Stock Option Agreement under 2016 Equity Incentive Plan | Incorporated by reference to Exhibit 10.13 to Amendment No. 3 to the Registrant's Registration Statement on Form S-1 (File No. 333-209115), filed with the Commission on June 9, 2016 | |
| 4.6 | Form of Restricted Stock Award Agreement under 2016 Equity Incentive Plan | Incorporated by reference to Exhibit 10.14 to Amendment No. 3 to the Registrant's Registration Statement on Form S-1 (File No. 333-209115), filed with the Commission on June 9, 2016 | |
| 4.7 | Form of Restricted Stock Unit Award Agreement under 2016 Equity Incentive Plan | Incorporated by reference to Exhibit 10.15 to Amendment No. 3 to the Registrant's Registration Statement on Form S-1 (File No. 333-209115), filed with the Commission on June 9, 2016 | |
| 4.8 | Form of Restricted Stock Unit Agreement under 2016 Equity Incentive Plan (Director RSUs) | Incorporated by reference to Exhibit 10.16 to Amendment No. 3 to the Registrant's Registration Statement on Form S-1 (File No. 333-209115), filed with the Commission on June 9, 2016 | |
| 4.9 | 2016 Employee Stock Purchase Plan | Incorporated by reference to Exhibit 10.17 to Amendment No. 3 to the Registrant's | |
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| | | | |
| | | Registration Statement on Form S-1 (File No. 333-209115), filed with the Commission on June 9, 2016 | |
| 5.1 | Opinion of Faegre Baker Daniels LLP | Filed herewith | |
| 23.1 | Consent of Grant Thornton LLP | Filed herewith | |
| 23.2 | Consent of Faegre Baker Daniels LLP | Included in Exhibit 5.1 | |
| 24.1 | Powers of Attorney | Included in signature page | |
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FAEGRE BAKER DANIELS LLP

90 South Seventh Street Minneapolis, Minnesota 55402 Telephone (612) 766-7000 Facsimile (612) 766-1600

February 27, 2017

Board of Directors Tactile Systems Technology, Inc. 1331 Tyler Street NE, Suite 200 Minneapolis, MN 55413

Re: <u>Tactile Systems Technology, Inc. Registration Statement on Form S-8</u>

Ladies and Gentlemen:

We have acted as counsel to Tactile Systems Technology, Inc., a Delaware corporation (the "Company"), in connection with the Registration Statement on Form S-8 (the "Registration Statement") filed by the Company with the Securities and Exchange Commission (the "Commission") under the Securities Act of 1933, as amended (the "Securities Act"), relating to the registration by the Company of:

- · an additional 841,686 shares of Common Stock, par value \$0.001 per share (the "Common Stock"), of the Company, under the Company's 2016 Equity Incentive Plan; and
- · an additional 168,337 shares of Common Stock under the Company's 2016 Employee Stock Purchase Plan (together with the Company's 2016 Equity Incentive Plan, the "Plans").

We have examined the Registration Statement and the originals, or duplicates or certified or conformed copies, of such corporate and other records, agreements, documents and other instruments and have made such other investigations as we have deemed relevant and necessary in connection with the opinions hereinafter set forth.

In rendering the opinions set forth below, we have assumed (i) the genuineness of all signatures, (ii) the legal capacity of natural persons, (iii) the authenticity of all documents submitted to us as originals, (iv) the conformity to original documents of all documents submitted to us as duplicates or certified or conformed copies, (v) the authenticity of the originals of such latter documents, (vi) that the Company will comply with all applicable notice requirements regarding uncertificated shares provided in the Delaware General Corporation Law and (vii) that shares of Common Stock issuable under the Plans (the "Shares") will be duly registered on the books of the transfer agent and registrar therefor in the name or on behalf of the acquirers. We have also assumed that the Company's Board of Directors, or a duly authorized committee thereof, will have approved the issuance of each award under the Plans prior to the issuance thereof. As to any facts material to this opinion that we did not independently establish or verify, we have relied upon oral or written statements and representations of officers and other representatives of the Company and others.

Based upon the foregoing, and subject to the qualifications, assumptions and limitations stated herein, we are of the opinion that all necessary corporate action on the part of the Company, has been taken to authorize the issuance and sale of the Shares to be issued in accordance with the Plans and that, when issued and sold as contemplated in the Registration Statement and related prospectuses and in accordance with the Plans and the terms of the applicable awards granted under the Plans, the Shares will be legally issued, fully paid and nonassessable.

We do not express any opinion herein concerning any law other than the Delaware General Corporation Law.

We hereby consent to the filing of this letter as Exhibit 5.1 to the Registration Statement and to the use of our name under the caption "Legal Matters" in the Prospectus included in the Registration Statement. In giving this consent, we do not hereby admit that we are in the category of persons whose consent is required under Section 7 of the Securities Act or the rules and regulations of the Commission.

This opinion is limited to the specific issues addressed herein, and no opinion may be inferred or implied beyond that expressly stated herein. This opinion speaks only as of the date the Registration Statement becomes effective under the Securities Act and we assume no obligation to revise or supplement this opinion thereafter.

Very truly yours,

FAEGRE BAKER DANIELS LLP

By: /s/ Jonathan R. Zimmerman
Jonathan R. Zimmerman

CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

We have issued our report dated February 27, 2017, with respect to the consolidated financial statements of Tactile Systems Technology, Inc. included in the Annual Report on Form 10-K for the year ended December 31, 2016, which is incorporated by reference in this Registration Statement. We consent to the incorporation by reference of the aforementioned report in this Registration Statement on Form S-8.

/s/ GRANT THORNTON LLP

Minneapolis, Minnesota February 27, 2017