



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

DIVISION OF  
CORPORATION FINANCE

Mail Stop 3030

January 15, 2016

Via E-mail

Scott A. Bibaud  
Chief Executive Officer  
Mears Technologies, Inc.  
20 Walnut Street, Suite 8  
Wellesley Hills, MA 02481

**Re: Mears Technologies, Inc.  
Draft Registration Statement on Form S-1  
Submitted December 21, 2015  
CIK No. 0001420520**

Dear Mr. Bibaud:

We have reviewed your draft registration statement and have the following comments. In some of our comments, we may ask you to provide us with information so we may better understand your disclosure.

Please respond to this letter by providing the requested information and either submitting an amended draft registration statement or publicly filing your registration statement on EDGAR. If you do not believe our comments apply to your facts and circumstances or do not believe an amendment is appropriate, please tell us why in your response.

After reviewing the information you provide in response to these comments and your amended draft registration statement or filed registration statement, we may have additional comments.

Prospectus Cover

1. Please explain how and when you intend to determine the number of shares that will be issuable pursuant to the underwriter's warrant. In this regard, please note that we do not consider the number of shares offered to be information which may be omitted pursuant to Rule 430A of the Securities Act.

Prospectus Summary, page 1

Our Company, page 1

2. Please provide us copies of third party data supporting your claims in the third paragraph that Mr. Mears has a “well-established track record of innovation” and explain what you mean by “well-established.” In this regard, we note that you include only a single example of Mr. Mears serving on a team.

Emerging Growth Company, page 2

3. Please supplementally provide us with copies of all written communications, as defined in Rule 405 under the Securities Act, that you, or anyone authorized to do so on your behalf, present to potential investors in reliance on Section 5(d) of the Securities Act, whether or not they retain copies of the communications.

Summary Financial Data, page 5

4. Please revise the table showing your selected financial data for the previous two fiscal years to include income loss from continuing operations per common share, total assets, and long-term obligations. See Instruction 2 to Item 301 of Regulation S-K.

Risk Factors, page 6

While the preliminary testing of our MST technology has been successful to date, page 6

5. Please explain here and in the summary and business sections how you define “successful” as relates to your technology.

Our Business, page 14

General, page 14

6. We note your reference to “partnering with manufacturers” in the third sentence of the fifth paragraph in this section. Please clarify the nature of these relationships and, if appropriate, explain how these relationships differ from the process qualification relationships you disclose here and on page 18. This comment also applies to similar disclosure on page 1.

Intellectual Property Rights, page 18

7. We note the importance of your “core patents” to your business as a whole. Please disclose the duration of these patents.
8. We note the disclosure of the license agreement between you and ASM International. Please reconcile this disclosure with the disclosure in exhibit 10.4, which discloses that the agreement is between “RJ Mears, LLC” and the ASM entities. In this regard, also clarify what effects this license agreement has on your operations. For example, if this agreement requires you to make payments for each MST product you license, please disclose this fact.

Management’s Discussion and Analysis of Financial Condition and Results of Operations, page 20

Plan of Operations, page 20

9. Please reconcile your disclosure that you intend to “expand [y]our sales to additional potential customers and markets” with the first sentence on page 21, which suggests you have not yet made sales. Additionally, please revise to clarify what you mean by your plan to “enhance the accreditation” of your main technology “with a more comprehensive set of proprietary data.”

Compensation Committee Interlocks and Insider Participation, page 23

10. Given your disclosure that your board of directors does not have a compensation committee, please revise to identify each of your officers and employees who participated in your board of directors’ deliberations concerning your executive officers’ compensation during the last completed fiscal year. See Item 407(e)(4)(ii) of Regulation S-K.

Executive Compensation, page 24

Narrative Disclosure to Summary Compensation Table, page 24

11. Please provide here, or in any other appropriate section, a narrative description of any material factors necessary to an understanding of the information you present in your summary compensation table. For example, you should describe the material terms of any employment arrangements you have with your named executive officers, if appropriate.

Related Party Transactions, page 25

12. We note your disclosure that you sold convertible promissory notes to your officers and directors in fiscal years 2013 and 2014. Please also disclose the names of the related persons who conducted transactions with you and the approximate dollar value of each related person's interest in the transaction.

Underwriting, page 40

Underwriting Discount and Expenses, page 40

13. Given that you have agreed to issue a warrant to your underwriter as compensation, as disclosed on page 41, please tell us why you have not included this warrant in the table on page 40.

Determination of Offering Price, page 41

14. Please revise the last sentence of this section to remove the suggestion that the offering price of your common stock in this offering may change.

Financial Statements for the Nine Months Ended September 30, 2015

Note 8. Stock Option Plan, page F-26

15. We note from your disclosures that you utilize the Black-Scholes-Merton option pricing model to determine the fair value of your stock options. Please revise to explain the methods used to determine the assumptions utilized in these models including volatility, risk-free interest rate and expected term, etc. Refer to the guidance in FASB ASC 718-10-50-2(f)(2). Refer also to FASB ASC 718-10-55-136.
16. In order to assist us in evaluating your equity based-instruments, please provide us with details of each issuance of stock options in the preceding twelve months. Include the following information for each grant date:
- Number of shares issued or issuable in the grant;
  - Purchase price or exercise price per share;
  - Any restriction or vesting terms;
  - Management's fair value per share estimate;
  - How management determined the fair value estimate;
  - Nature of any relationship between the recipient and the company;
  - Nature and terms of any concurrent transactions with the recipient;
  - Amount of any recorded compensation element.

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When pricing information for this offering is available, progressively bridge management's fair value per share determinations to the current estimated IPO price per share.

Exhibit 10.11

17. Please file the attachments missing from exhibit 10.11 or advise. For example, we note the references to exhibits A, D, and F.

You may contact Dennis Hult at (202) 551-3618 or Lynn Dicker, Senior Accountant, at (202) 551-3616 if you have questions regarding comments on the financial statements and related matters. Please contact Caleb French at (202) 551-6947 or me at (202) 551-3528 with any other questions.

Sincerely,

/s/ Amanda Ravitz

Amanda Ravitz  
Assistant Director  
Office of Electronics and Machinery

cc: Daniel K. Donahue