



DIVISION OF  
CORPORATION FINANCE

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

March 22, 2013

Via E-mail  
Ori Hadomi  
Chief Executive Officer  
Mazor Robotics Ltd.  
7 Haeshel Street  
Caesarea Industrial Park South  
38900 Israel

**Re: Mazor Robotics Ltd.  
Revised Confidential Draft Registration Statement on Form 20-F  
Submitted February 28, 2013  
CIK No. 0001566844**

Dear Mr. Hadomi:

We have reviewed your revised confidential 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 confidential 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 confidential draft registration statement or filed registration statement, we may have additional comments.

Manufacturing and Assembly, page 50

1. Please expand the disclosure in the last paragraph of this section to identify the subcontractors that manufacture the RBT device and assemble the Renaissance work station. Also, expand the disclosure in the penultimate sentence of this section to identify the subcontractors that must provide you with eighteen months' notice and with three months' notice. In addition, disclose the duration of your agreements with the two subcontractors.

Dividends, page 90

2. Regarding your response to prior comment 11 about restrictions on dividends, we note that you continue to disclose in this section that you are restricted from paying dividends to your shareholders. Please delete the disclosure about the restrictions given your supplemental response that the statement relating to dividend restrictions was an error.
3. Regarding the financing agreements mentioned in prior comment 11, it does not appear that you revised the disclosure in your document about such agreements. Therefore, as we requested in prior comment 11 please expand the disclosure to identify these financing agreements to which you are a party, providing the date of the agreement, the lender(s), the amount currently outstanding thereunder, and the maturity date for each such agreement. Otherwise, please tell us why you did not provide the disclosure.

Exhibits 4.9 and 4.11

4. We note that you have requested confidential treatment for exhibits 4.9 and 4.11. Please be advised that comments will be issued in a separate letter on your confidential treatment application.

If you intend to respond to these comments with an amended draft registration statement, please submit it and any associated correspondence in accordance with the guidance we provide in the Division's October 11, 2012 announcement on the SEC website at <http://www.sec.gov/divisions/corpfin/cfannouncements/drsfilingprocedures101512.htm>.

Please keep in mind that we may publicly post filing review correspondence in accordance with our December 1, 2011 policy (<http://www.sec.gov/divisions/corpfin/cfannouncements/edgarcorrespondence.htm>). If you intend to use Rule 83 (17 CFR 200.83) to request confidential treatment of information in the correspondence you submit on EDGAR, please properly mark that information in each of your confidential submissions to us so we do not repeat or refer to that information in our comment letters to you.

Ori Hadomi  
Mazor Robotics Ltd.  
March 22, 2013  
Page 3

You may contact Dennis Hult, Staff Accountant, at (202) 551-3618 or Jay Webb, Accounting Reviewer, at (202) 551-3603 if you have questions regarding comments on the financial statements and related matters. Please contact Tom Jones at (202) 551-3602 or me at (202) 551-3528 with any other questions.

Sincerely,

/s/ Amanda Ravitz

Amanda Ravitz  
Assistant Director

cc (via e-mail): Jonathan Achiron