

As filed with the Securities and Exchange Commission on July 25, 2011  
Registration No. \_\_\_\_\_

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

**FORM S-8**

**REGISTRATION STATEMENT  
UNDER  
THE SECURITIES ACT OF 1933**

**EMCORE CORPORATION**

(Exact name of registrant as specified in its charter)

**New Jersey**

(State or Other Jurisdiction of Incorporation or Organization)

**22-2746503**

(I.R.S. Employer Identification No.)

**10420 Research Road SE  
Albuquerque, New Mexico**

(Address of Principal Executive Offices)

**87123**

(Zip Code)

**EMCORE Corporation 2010 Equity Incentive Plan**

**EMCORE Corporation 2007 Directors' Stock Award Plan**

**EMCORE Corporation 2000 Employee Stock Purchase Plan**

(Full title of the plans)

**Mark B. Weinswig  
Chief Financial Officer  
EMCORE Corporation  
10420 Research Road SE**

**Albuquerque, New Mexico 87123**  
(Name and address of agent for service)

**(505) 332-5000**

(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      ☐ Smaller reporting company

# CALCULATION OF REGISTRATION FEE

Title of each class of securities to be registered	Amount to be registered (1)	Proposed maximum offering price per share (2)	Proposed maximum aggregate offering price (2)	Amount of registration fee(2)
Common Stock, no par value				
2010 Equity Incentive Plan	3,000,000	\$ 2.82	\$ 8,460,000	\$ 982.21
2007 Directors' Stock Award Plan	N/A	N/A	\$ 750,000	\$ 87.08
2000 Employee Stock Purchase Plan	2,500,000	\$ 2.40(3)	\$ 6,000,000	\$ 696.60

- (1) Pursuant to Rule 416(a) under the Securities Act of 1933, as amended, this Registration Statement also covers an indeterminate number of shares that may be offered or issued to prevent dilution as a result of stock splits, stock dividends, or similar transactions.
- (2) Estimated pursuant to paragraphs (c) and (h) of Rule 457 of the General Rules and Regulations under the Securities Act of 1933, as amended (the "Securities Act"), for the purpose of computing the registration fee, based on the average of the high and low sales price on The NASDAQ Global Market on July 19, 2011.
- (3) The proposed maximum offering price per share of \$2.40 was determined by discounting the offering price per share (as computed in note two above) by 15% in accordance with the terms of the ESPP.

This Registration Statement shall become effective upon filing in accordance with Rule 462(a) under the Securities Act of 1933.

## EXPLANATORY NOTE

### Registration of Additional Shares under EMCORE Corporation 2010 Equity Incentive Plan

Pursuant to General Instruction E of Form S-8, the registrant, EMCORE Corporation (the "Registrant"), is filing this Registration Statement in order to register an additional 3,000,000 shares of the Registrant's common stock, no par value per share (the "Common Stock") issuable under the EMCORE Corporation 2010 Equity Incentive Plan, as amended and restated. These additional securities are of the same class and relate to the same employee benefit plan as those shares registered on the Registrant's registration statement on Form S-8 previously filed with the Securities and Exchange Commission (the "Commission") on January 28, 2011 (File No. 333-171929), with respect to the issuance of 4,000,000 shares of Common Stock, which is hereby incorporated by reference.

### Registration of Additional Shares under EMCORE Corporation 2007 Directors' Stock Award Plan

Pursuant to General Instruction E of Form S-8, the Registrant is filing this Registration Statement in order to register additional shares of the Registrant's Common Stock in an amount equal to \$750,000 (valued as of the date of issue), issuable under the Registrant's 2007 Directors' Stock Award Plan, as the same may be amended or restated. These additional securities are of the same class and relate to the same employee benefit plan as those shares registered on the Registrant's registration statement on Form S-8 previously filed with the Commission on June 5, 2009 (File No. 333-159769), with respect to the issuance of Common Stock in an amount equal to \$750,000, which is hereby incorporated by reference.

### Registration of Additional Shares under EMCORE Corporation 2000 Employee Stock Purchase Plan

Pursuant to General Instruction E of Form S-8, the Registrant is filing this Registration Statement in order to register an additional 2,500,000 shares of the Registrant's Common Stock issuable under the EMCORE Corporation 2000 Employee Stock Purchase Plan. These additional securities are of the same class and relate to the same employee benefit plan as those shares registered on the Registrant's registration statements on Form S-8 previously filed with the Commission on May 18, 2000, March 10, 2006, and June 30, 2009 (File Nos. 333-37306 and 333-132318 and 333-160360, respectively), with respect to the issuance of an aggregate 4,500,000 shares of Common Stock, which are hereby incorporated by reference.

## PART II INFORMATION REQUIRED IN THE REGISTRATION STATEMENT

### Item 8. Exhibits

Exhibit No.	Exhibit Description
4.1	2010 Equity Incentive Plan (incorporated by reference to Appendix B of Registrant's Proxy Statement filed on April 9, 2010).
4.2	2007 Directors' Stock Award Plan (incorporated by reference to Exhibit 99.1 of Registrant's Form S-8 filed on June 5, 2009).
4.3	2000 Employee Stock Purchase Plan (incorporated by reference to Appendix C of Registrant's Proxy Statement filed on April 9, 2010).
4.4	Restated Certificate of Incorporation, dated April 4, 2008 (incorporated by reference to Exhibit 3.1 to Registrant's Current Report on Form 8-K filed on April 4, 2008).
4.5	Amended By-Laws, as amended through August 7, 2008 (incorporated by reference to Exhibit 3.1 to Registrant's Current Report on Form 8-K filed on August 13, 2008).
5.1	Legal Opinion of Dillon, Bitar & Luther, L.L.C.*
23.1	Consent of Dillon, Bitar & Luther, L.L.C. (included in its opinion filed as Exhibit 5.1 in this Registration Statement).*
23.2	Consent of KPMG LLP*
23.3	Consent of Deloitte & Touche LLP.*
24.1	Powers of Attorney (included on the signature pages to this Registration Statement).*

\* Filed herewith.

## 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 the City of Alhambra, State of California, on July 25, 2011.

### EMCORE CORPORATION

By: /s/ Mark B. Weinswig  
Mark B. Weinswig  
Chief Financial Officer

Each person whose signature appears below constitutes and appoints and hereby authorizes Hong Q. Hou, Ph.D. and Mark B. Weinswig, jointly and severally, such person's true and lawful attorneys-in-fact, with full power of substitution or re-substitution, for such person and in his name, place and stead, in any and all capacities, to sign on such person's behalf, individually and in each capacity stated below, any and all amendments, including post-effective amendments to this Form S-8, and to file the same, with all exhibits thereto, and other documents in connection therewith, with the Commission granting unto said attorneys-in-fact, full power and authority to do and perform each and every act and thing requisite or necessary to be done in and about the premises, as fully to all intents and purposes as such person might or could do in person, hereby ratifying and confirming all that said attorneys-in-fact, or their substitute or substitutes, may lawfully do or cause to be done by virtue hereof.

Pursuant to the requirements of the Securities Act of 1933, this report has been signed below by the following persons on behalf of the Registrant in the capacities indicated, on July 25, 2011.

<b>Signature</b>	<b>Title</b>
<u>/s/ Thomas J. Russell, Ph.D</u> Thomas J. Russell, Ph.D	Chairman Emeritus
<u>/s/ Reuben F. Richards, Jr.</u> Reuben F. Richards, Jr.	Executive Chairman & Chairman of the Board
<u>/s/ Hong Q. Hou, Ph.D.</u> Hong Q. Hou, Ph.D	Chief Executive Officer and Director (Principal Executive Officer)
<u>/s/ Mark B. Weinswig</u> Mark B. Weinswig	Chief Financial Officer (Principal Financial and Accounting Officer)
<u>/s/ Charles T. Scott</u> Charles T. Scott	Director
<u>/s/ John Gillen</u> John Gillen	Director
<u>/s/ Robert L. Bogomolny</u> Robert L. Bogomolny	Lead Independent Director
<u>/s/ Sherman McCorkle</u> Sherman McCorkle	Director
<u>/s/ James A. Tegnalia</u> James A. Tegnalia	Director

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## INDEX TO EXHIBITS

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\* Filed herewith.

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July 22, 2011

EMCORE Corporation  
10420 Research Road, S.E.  
Albuquerque, NM 87123

Re: EMCORE Corporation  
Registration Statement on Form S-8

Ladies and Gentlemen:

We are providing this opinion letter in our capacity as special counsel to EMCORE Corporation, a New Jersey corporation (the "Company"), in connection with the filing by the Company of a registration statement on Form S-8 (the "Registration Statement") under the Securities Act of 1933, as amended (the "Securities Act"), with the United States Securities and Exchange Commission (the "Commission"). The Registration Statement relates to the registration of (i) 3,000,000 shares of the Company's common stock that may be issued by the Company pursuant to the terms and provisions of the Company's 2010 Equity Incentive Plan, (ii) 2,500,000 shares of the Company's common stock that may be issued by the Company pursuant to the terms and provisions of the Company's 2000 Employee Stock Purchase Plan, and (iii) an aggregate amount of \$750,000 of shares that may be acquired by certain Directors of the Company pursuant to the terms and provisions of the Company's 2007 Director's Stock Award Plan. The 5,500,000 shares and the \$750,000 of shares of the Company's common stock are collectively referred to herein as the "Shares" and each of the respective plans named above is referred to herein as the "Plan" and collectively as the "Plans."

You have requested that we render the opinion set forth in this letter and we are furnishing this opinion in accordance with the requirements of Part II, Item 8 of Form S-8 and Item 601(b)(5)(i) of Regulation S-K promulgated by the Commission under the Securities Act.

In connection with the foregoing registration, we have examined originals, or copies certified or otherwise identified to our satisfaction, of (i) the Registration Statement in the form provided to us by the Company, (ii) the Company's Restated Certificate of Incorporation, as amended and restated to date (the "Certificate of Incorporation"), (iii) the Company's By-Laws, as amended and/or restated to date (the "By-Laws"), (iv) certain resolutions of the Board of Directors of the Company relating to the Shares and the registration thereof, and (v) such other documents as we have deemed necessary or appropriate for purposes of rendering the opinion set forth herein.

In our examination, we have assumed the legal capacity of all natural persons, the genuineness of all signatures, the authenticity of all documents submitted to us as certified or photostatic copies and the authenticity of the originals of such latter documents. As to any facts material to the opinion expressed herein that were not independently established or verified by us, we have relied upon statements and representations of officers and other representatives of the Company and others.

We do not express or purport to express any opinions with respect to laws other than the Federal laws of the United States and the laws of the State of New Jersey.

Based upon and subject to the foregoing, we are of the opinion that the Shares will, if issued and delivered in accordance with the terms and provisions of the respective Plan, be validly issued, fully paid and nonassessable.

We hereby consent to the filing of this opinion with the Commission as an Exhibit to 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 promulgated thereunder.

This opinion is limited to the specific issues addressed herein, and no opinion may be inferred or implied beyond that expressly stated herein. We assume no obligation to revise or supplement this opinion should present Federal laws or the present laws of the State of New Jersey be changed by legislative action, judicial decision or otherwise.

Very truly yours,

/s/ DILLON, BITAR & LUTHER, L.L.C.

DILLON, BITAR & LUTHER, L.L.C.

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**CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM**

The Board of Directors  
EMCORE Corporation:

We consent to the use of our reports with respect to the consolidated financial statements and the effectiveness of internal control over financial reporting incorporated by reference herein.

Our report dated January 10, 2011, on the effectiveness of internal control over financial reporting as of September 30, 2010, expressed our opinion that EMCORE Corporation did not maintain effective internal control over financial reporting as of September 30, 2010 because of the effect of material weaknesses on the achievement of the objectives of the control criteria and contains an explanatory paragraph that states material weaknesses related to certain inventory reserves transactions and certain inventory held by third parties have been identified and included in management's assessment.

/s/ KPMG LLP

KPMG LLP  
Albuquerque, New Mexico

July 25, 2011

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**CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM**

We consent to the incorporation by reference in this Registration Statement on Form S-8 of our report dated December 29, 2009 (January 10, 2011, as to the effects of correcting the 2009 financial statements described in Note 2) relating to the 2009 and 2008 consolidated financial statements of EMCORE Corporation and subsidiaries appearing in the Annual Report on Form 10-K of EMCORE Corporation for the year ended September 30, 2010.

/s/ Deloitte & Touche LLP

Deloitte & Touche LLP

Dallas, Texas

July 25, 2011

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