

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

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POST-EFFECTIVE AMENDMENT NO. 1  
to  
FORM S-1  
on  
FORM S-3  
REGISTRATION STATEMENT  
UNDER THE SECURITIES ACT OF 1933

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**EMCORE Corporation**  
(Exact name of registrant as specified in its charter)

<b><u>New Jersey.</u></b>	<b><u>3,674</u></b>	<b><u>22-2746503</u></b>
(State or other jurisdiction of incorporation or organization)	(Primary Standard Industrial Classification Code Number)	(I.R.S. Employer Identification Number)

**10420 Research Road, SE, Albuquerque, New Mexico, (505) 332-5000**  
(Address, including zip code, and telephone number, including area code, of registrant's principal executive offices)

**Hong Q. Hou, Ph.D.**  
**Chief Executive Officer**  
**EMCORE Corporation**  
**10420 Research Road, SE**  
**Albuquerque, New Mexico**  
**(505) 332-5000**

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

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*Copies to:*

**Tobias L. Knapp, Esq.**  
**Jenner & Block LLP**  
**919 Third Avenue**  
**New York, New York 10022**  
**(212) 891-1600**

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**Approximate date of commencement of proposed sale to the public:**

From time to time after the effective date of this registration statement.

If the only securities being registered on this Form are being offered pursuant to dividend or interest reinvestment plans, please check the following box:

If any of the securities being registered on this Form are to be offered on a delayed or continuous basis pursuant to Rule 415 under the Securities Act of 1933, other than securities offered only in connection with dividend or interest reinvestment plans, check the following box:

If this Form is filed to register additional securities for an offering pursuant to Rule 462(b) under the Securities Act, please check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering.

If this Form is a post-effective amendment filed pursuant to Rule 462(c) under the Securities Act, check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering.

If this Form is a registration statement pursuant to General Instruction I.D. or a post-effective amendment thereto that shall become effective upon filing with the Commission pursuant to Rule 462(e) under the Securities Act, check the following box.

If this Form is a post-effective amendment to a registration statement filed pursuant to General Instruction I.D. filed to register additional securities or additional classes of securities pursuant to Rule 413(b) under the Securities Act, check the following box.

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):

<input type="checkbox"/> Large accelerated filer	<input type="checkbox"/> Accelerated filer
<input type="checkbox"/> Non-accelerated filer	<input type="checkbox"/> Smaller reporting company

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### **Explanatory Note**

This Registration Statement on Form S-3 constitutes a post-effective amendment to our registration statement on Form S-1 (No. 333-176797). The S-1 was declared effective by the Securities and Exchange Commission on September 28, 2011. We are filing this post-effective amendment on Form S-3 for the purpose of converting the Registration Statement on Form S-1 into a Registration Statement on Form S-3 because we are again eligible to use Form S-3. All filing fees payable in connection with the registration of these securities were previously paid in connection with the filing of the S-1.

This Registration Statement contains a combined prospectus pursuant to Rule 429 under the Securities Act that relates to, among other things, the exercise of warrants that have previously been registered with the Securities and Exchange Commission pursuant to the Company's Registration Statement on Form S-3 (File No. 333-160437). Accordingly, upon effectiveness, this Registration Statement shall act as a post-effective amendment to such previously filed Registration Statement. The information in this Registration Statement updates the information contained in Registration Statement No. 333-160437.

**The information in this prospectus is not complete and may be changed. These securities may not be sold until the registration statement filed with the Securities and Exchange Commission is effective. This prospectus is not an offer to sell securities and it is not soliciting an offer to buy these securities in any state or jurisdiction where the offer to sell or buy is not permitted.**

**SUBJECT TO COMPLETION, DATED AUGUST 10, 2012**

**PROSPECTUS**



**2,500,000 Shares of Common Stock**

**400,000 Shares of Common Stock Underlying Warrants**

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This prospectus relates to the resale from time to time by Commerce Court Small Cap Value Fund, Ltd., or Commerce Court, of up to 2,500,000 shares of our common stock, no par value per share, the exercise by Commerce Court of warrants, and the resale from time to time by Commerce Court of 400,000 shares of common stock underlying the warrants.

We are not selling any shares of common stock in this offering and, therefore, we will not receive any proceeds from the sale of shares by the selling shareholder. We will, however, receive proceeds upon the exercise of warrants to purchase an aggregate of up to 400,000 shares of our common stock held by Commerce Court to the extent such warrants are exercised for cash. The warrants are exercisable on or prior to April 1, 2015 and give Commerce Court the right to purchase up to (i) 166,667 shares of our common stock at an initial exercise price of \$6.76; (ii) 166,667 shares of our common stock at an initial exercise price of \$8.08; and (iii) 66,666 shares of our common stock at an initial exercise price of \$9.44. We will bear all of the expenses and fees incurred in registering the shares offered by this prospectus.

Commerce Court is an “underwriter” within the meaning of Section 2(a)(11) of the Securities Act of 1933, as amended, and any profits on the sales of shares of our common stock by Commerce Court and any discounts, commissions or concessions received by Commerce Court may be deemed to be underwriting discounts and commissions under the Securities Act.

The shares may be sold from time to time through public or private transactions at prevailing market prices, at prices related to prevailing market prices, or at privately negotiated prices. We provide more information about how Commerce Court may sell its shares of common stock in the section entitled “Plan of Distribution” beginning on page 13 of this prospectus. We will not be paying any underwriting discounts or commissions in connection with any offering of common stock under this prospectus.

Our common stock is quoted on The NASDAQ Global Market under the symbol “EMKR”. On August 8, 2012, the last reported closing sale price of our common stock was \$5.37 per share. All applicable share, per share, and related information in this prospectus have been adjusted retroactively for the 4:1 reverse stock split on shares of our common stock effected on February 15, 2012.

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**Investing in our common stock involves a high degree of risk. Before making any investment in our common stock, you should read and carefully consider the risks described in the section entitled “Risk Factors” beginning on page 1 of this prospectus.**

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**Neither the Securities and Exchange Commission nor any state securities commission has approved or disapproved of these securities, or determined if this prospectus is truthful or complete. Any representation to the contrary is a criminal offense.**

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**The date of this prospectus is , 2012**

## TABLE OF CONTENTS

	<u>Page</u>
EMCORE CORPORATION	<a href="#"><u>1</u></a>
Risk Factors	<a href="#"><u>1</u></a>
Note Regarding Forward-Looking Statements	<a href="#"><u>1</u></a>
Use Of Proceeds	<a href="#"><u>2</u></a>
Dilution	<a href="#"><u>2</u></a>
Committed Equity Line Financing	<a href="#"><u>3</u></a>
Selling Shareholder	<a href="#"><u>7</u></a>
Plan Of Distribution	<a href="#"><u>8</u></a>
Description Of Our Common Stock	<a href="#"><u>11</u></a>
Legal Matters	<a href="#"><u>12</u></a>
Experts	<a href="#"><u>13</u></a>
Where You Can Find Additional Information	<a href="#"><u>13</u></a>
Incorporation Of Certain Information By Reference	<a href="#"><u>13</u></a>

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This prospectus is part of a registration statement on Form S-3 that we filed with the Securities and Exchange Commission (the “SEC” or the “Commission”). You should only rely on the information in this prospectus or to which we have referred you. We have not authorized anyone to provide you with information or to make any representation on our behalf that is different from that contained in this prospectus. You should not rely on any unauthorized information or representation. This prospectus relates to the resale from time to time of shares of our common stock, no par value per share, which are held by the selling shareholder under the circumstances and in states or jurisdictions where it is lawful to do so. This prospectus may be used only in states or jurisdictions where it is legal to sell these securities. Persons outside the United States who come into possession of this prospectus must inform themselves about, and observe any restrictions relating to, the offering of the securities and the distribution of this prospectus outside the United States. For investors outside of the United States, neither we, the selling stockholder nor any other person involved in the offering have done anything that would permit this offering or possession or distribution of this prospectus in any jurisdiction where action for that purpose is required, other than the United States. You should inform yourself and consult with your own legal advisors about how to observe any restrictions relating to this offering and the distribution of the prospectus as well as any legal, tax, business, financial and other related aspects of a purchase of such securities.

Unless we state otherwise or the context indicates otherwise, references to the “Company”, “EMCORE”, “we”, “us”, and “our” in this prospectus refer to EMCORE Corporation and its subsidiaries. Our fiscal year ends on September 30 of each calendar year. For example, fiscal year 2011 refers to the fiscal year ended September 30, 2011. EMCORE is a registered trademark of EMCORE Corporation. This prospectus contains product names, trade names, and trademarks of EMCORE Corporation and other organizations.

We are a provider of compound semiconductor-based components and subsystems for the broadband, fiber optic, satellite, and terrestrial solar power markets. We were established in 1984 as a New Jersey corporation. We have two reporting segments: Fiber Optics and Photovoltaics. Our Fiber Optics segment offers optical components, subsystems, and systems that enable the transmission of video, voice, and data over high-capacity fiber optic cables for high-speed data and telecommunications, cable television (“CATV”) and fiber-to-the-premises (“FTTP”) networks. Our Photovoltaics segment provides solar products for satellite and terrestrial applications. For satellite applications, we offer high-efficiency compound semiconductor-based gallium arsenide (“GaAs”) solar cells, covered interconnect cells (“CICs”) and fully integrated solar panels. For terrestrial applications, we offer concentrating photovoltaic (“CPV”) systems for utility scale solar applications as well as our high-efficiency GaAs solar cells and CPV components for use in solar power concentrator systems.

Our headquarters and principal executive offices are located at 10420 Research Road, SE, Albuquerque, New Mexico, 87123, and our main telephone number is (505) 332-5000. For specific information about our company, our products or the markets we serve, please visit our website at <http://www.emcore.com>. The information contained in or linked to our website is not part of this prospectus.

### **Risk Factors**

Your investment in our securities involves a high degree of risk. You should carefully read and consider the risks set forth under the caption “Risk Factors” in our Annual Report on Form 10-K for the fiscal year ended September 30, 2011, and any updates in our subsequent Quarterly Reports on Form 10-Q, which are incorporated by reference in this prospectus, and all of the other information appearing in this prospectus or incorporated by reference in this prospectus, in light of your particular investment objectives and financial circumstances.

If any of the events described actually occur, or if additional risks and uncertainties not presently known to us or that we currently deem immaterial, materialize, then our business, financial condition, cash flows, and operating results could be materially adversely affected. As a result, the trading price of our common stock and the value of the securities offered could decline, and you could lose a part or all of your investment.

### **Note Regarding Forward-Looking Statements**

This prospectus includes forward-looking statements within the meaning of Section 27A of the Securities Act of 1933, as amended (the “Securities Act”) and Section 21E of the Securities Exchange Act of 1934, as amended (the “Exchange Act”). These forward-looking statements are largely based on our current expectations and projections about future events and financial trends affecting the financial condition of our business. Such forward-looking statements include, in particular, projections about our future results, statements about our plans, strategies, business prospects, changes and trends in our business and the markets in which we operate. These forward-looking statements may be identified by the use of terms and phrases such as “anticipates”, “believes”, “can”, “could”, “estimates”, “expects”, “forecasts”, “intends”, “may”, “plans”, “projects”, “targets”, “will”, and similar expressions or variations of these terms and similar phrases. Additionally, statements concerning future matters such as the development of new products, enhancements or technologies, sales levels, expense levels, and other statements regarding matters that are not historical are forward-looking statements. Management cautions that these forward-looking statements relate to future events or our future financial performance and are subject to business, economic, and other risks and uncertainties, both known and unknown, that may cause actual results, levels of activity, performance, or achievements of our business or our industry to be materially different from those expressed or implied by any forward-looking statements. Factors that could cause or contribute to such differences in results and outcomes include, but are not limited to, those discussed under the section entitled “Risk Factors” in this prospectus. Readers should carefully review this information as well as other risks and uncertainties described in other filings with the SEC that we may make after the filing date of this prospectus.

All forward-looking statements in this prospectus are made as of the date hereof, based on information available to us as of the date hereof, and subsequent facts or circumstances may contradict, obviate, undermine, or otherwise fail to support or substantiate such statements. We caution you not to rely on these statements without also considering the risks and uncertainties associated with these statements and our business that are addressed in this prospectus. We assume no obligation to update any forward-looking statement to conform such statements to actual results or to changes in our expectations, except as required by applicable law or regulation.

### Use Of Proceeds

All proceeds from the sale of our common stock offered pursuant to this prospectus belong to the selling shareholder. While we will receive proceeds from the sale of our common stock pursuant to the Purchase Agreement as defined below, we will not receive any proceeds from the sale of our common stock under this prospectus by the selling shareholder.

We will, however, receive proceeds upon the exercise of warrants to purchase an aggregate of up to 400,000 shares of our common stock held by the selling shareholder to the extent such warrants are exercised for cash. We would expect to use the proceeds from the cash exercise of the warrants, if any, for working capital and for general corporate purposes.

### Dilution

Dilution per share represents the difference between the amount per share paid by purchasers of shares of common stock pursuant to the Purchase Agreement and the net tangible book value per share of our common stock immediately after stock issuance pursuant to the Purchase Agreement. Net tangible book value per share is equal to the amount of total tangible assets, less total liabilities, divided by the aggregate number of shares of common stock outstanding.

The net tangible book value of our common stock on June 30, 2012 was approximately \$49.2 million, or approximately \$2.04 per share. After giving effect to the sale of 2,472,263 shares of common stock (2,500,000 shares pursuant to the Purchase Agreement less 27,737 Commitment Shares already issued) at an assumed price of \$5.03 (which reflects an assumed offering price of \$5.30 per share representing the average of the high and low sales price of the Company's common stock on August 8, 2012, less the 5.0% discount provided under the Purchase Agreement), and after deducting the estimated offering expenses and related placement agent fees, our net tangible book value at June 30, 2012 would have been approximately \$61.4 million, or approximately \$2.32 per share. This represents an immediate dilution of \$2.71 per share to the Company's shareholders as a result of the sale of 2,472,263 shares pursuant to the Purchase Agreement and registered under this offering. The actual dilution will depend on the market price at the time such shares are sold under the Purchase Agreement.

The following table illustrates this dilution:

Assumed price per share (which reflects an assumed offering price of \$5.30 per share representing the average of the high and low sales price of the Company's common stock on August 8, 2012, less the 5.0% discount provided under the Purchase Agreement)		\$5.03
Net tangible book value per share as of June 30, 2012	\$2.04	
Increase per share attributable to new investors	\$0.28	
Net tangible book value per share as of June 30, 2012 after giving effect to the sale of 2,472,263 shares of common stock pursuant to the Purchase Agreement	\$2.32	
Net dilution per share to shareholders		\$2.71

The above table does not take into account as of June 30, 2012:

- 2,109,032 shares of our common stock issuable upon exercise of outstanding stock options;
- 166,667 shares of our common stock issuable upon exercise of outstanding warrants at \$6.76 per share exercise price;
- 166,667 shares of our common stock issuable upon exercise of outstanding warrants at \$8.08 per share exercise price;
- 66,666 shares of our common stock issuable upon exercise of outstanding warrants at \$9.44 per share exercise price; and
- 350,010 shares of our common stock issuable upon exercise of outstanding warrants at \$60.24 per share exercise price.

To the extent that stock options or warrants are exercised, new stock awards are issued under our equity benefit plans, or we issue additional shares of common stock in the future, there may be further dilution to the Company's shareholders. In addition, we may choose to raise additional capital because of market conditions or strategic considerations, even if we believe that we have sufficient funds for our current or future operating plans. If we raise additional capital through the sale of equity or convertible debt securities, the issuance of these securities could result in further dilution to the Company's shareholders.

### **Committed Equity Line Financing**

On August 16, 2011, we entered into a Common Stock Purchase Agreement (the "Purchase Agreement") with Commerce Court, providing for a financing arrangement that is sometimes referred to as a committed equity line financing facility. The Purchase Agreement provides that, upon the terms and subject to the conditions in the Purchase Agreement, Commerce Court is committed to purchase \$50 million of shares of our common stock over the 24-month term of the Purchase Agreement under certain specified conditions and limitations, provided that, except as described below, in no event may we sell under the Purchase Agreement more than 4,629,455 shares of our common stock (the "Trading Market Limit"), which is less than 20% of our outstanding shares of common stock on August 15, 2011, the day before the closing date of the Purchase Agreement, less the number of shares of common stock we issued to Commerce Court on the closing date as commitment shares described below. In no event shall Commerce Court be obligated to purchase under the Purchase Agreement any shares of our common stock which, when aggregated with all other shares of our common stock then beneficially owned by Commerce Court, would result in the beneficial ownership by Commerce Court of more than 9.9% of the then issued and outstanding shares of our common stock. The Purchase Agreement provides that the Trading Market Limit will not be applicable for any purposes of the Purchase Agreement or the transactions contemplated thereby, solely to the extent (and only for so long as) the average purchase price of all shares of common stock issued by the Company to Commerce Court, taking into account all discounts and the shares issued to Commerce Court in payment of its commitment fee, equals or exceeds \$7.404 per share, which represents (i) the consolidated closing bid price per share of the Company's common stock as reported on The Nasdaq Stock Market on the trading day immediately preceding the closing date of the Purchase Agreement and (ii) an incremental amount to account for the issuance of shares to Commerce Court in payment of its commitment fee. These maximum share and beneficial ownership limitations may not be waived by the parties.

From time to time over the term of the Purchase Agreement, and in our sole discretion, we may present Commerce Court with draw down notices requiring Commerce Court to purchase a specified dollar amount of shares of our common stock, based on the price per share over 10 consecutive trading days, with the total dollar amount of each draw down subject to certain agreed-upon limitations based on the market price of our common stock at the time of the draw down (which may not be waived or modified). In addition, in our sole discretion, but subject to certain limitations, we may require Commerce Court to purchase a percentage of the daily trading volume of our common stock for each trading day during the draw down period. We are allowed to present Commerce Court with up to 24 draw down notices during the term of the Purchase Agreement, with only one such draw down notice allowed per draw down period and a minimum of five trading days required between each draw down period.



Once presented with a draw down notice, Commerce Court is required to purchase a pro rata portion of the shares on each trading day during the trading period on which the daily volume weighted average price for our common stock exceeds a threshold price determined by us for such draw down. The per share purchase price for these shares equals the daily volume weighted average price of our common stock on each date during the draw down period on which shares are purchased, less a discount of 5.0%. If the daily volume weighted average price of our common stock falls below the threshold price on any trading day during a draw down period, the Purchase Agreement provides that Commerce Court will not be required to purchase the pro-rata portion of shares of common stock allocated to that trading day. The obligations of Commerce Court under the Purchase Agreement to purchase shares of our common stock may not be transferred to any other party.

In consideration for Commerce Court's execution and delivery of the Purchase Agreement, upon the execution and delivery of the Purchase Agreement, we issued Commerce Court 27,737 shares of our common stock (the "Commitment Shares"). The issuance of the Commitment Shares, together with all other shares of common stock issuable to Commerce Court pursuant to the terms of the Purchase Agreement, is exempt from registration under the Securities Act, pursuant to the exemption for transactions by an issuer not involving any public offering under Section 4(2) of, and Rule 506 of Regulation D promulgated under, the Securities Act.

Commerce Court has agreed that during the term of the Purchase Agreement, neither Commerce Court nor any of its affiliates will, directly or indirectly, engage in any short sales involving our securities or grant any option to purchase, or acquire any right to dispose of or otherwise dispose for value of, any shares of our common stock or any securities convertible into or exercisable or exchangeable for any shares of our common stock, or enter into any swap, hedge or other similar agreement that transfers, in whole or in part, the economic risk of ownership of any shares of our common stock, provided that Commerce Court will not be prohibited from engaging in certain transactions relating to any of the shares of our common stock that it owns, including the Commitment Shares, or that it is obligated to purchase under a pending draw down notice.

The Purchase Agreement contains customary representations, warranties and covenants by, among and for the benefit of the parties. Before Commerce Court is obligated to purchase any shares of our common stock pursuant to a draw down notice, certain conditions specified in the Purchase Agreement, none of which are in Commerce Court's control, must be satisfied, including the following:

- Each of our representations and warranties in the Purchase Agreement must be true and correct in all material respects.
- We must have performed, satisfied and complied in all material respects with all covenants, agreements and conditions required to be performed, satisfied or complied with by us.
- The registration statement of which this prospectus forms a part must be effective under the Securities Act.
- We must not have knowledge of any event that could reasonably be expected to have the effect of causing the suspension of the effectiveness of the registration statement of which this prospectus forms a part or the prohibition or suspension of the use of this prospectus.
- We must have filed with the SEC all required prospectus supplements relating to this prospectus and all periodic reports and filings required to be filed by us under the Exchange Act.
- Trading in our common stock must not have been suspended by the SEC, The NASDAQ Global Market or the Financial Industry Regulatory Authority ("FINRA") and trading in securities generally on The NASDAQ Global Market must not have been suspended or limited.
- We must have complied with all applicable federal, state and local governmental laws, rules, regulations and ordinances in connection with the execution, delivery and performance of the Purchase Agreement and the Registration Rights Agreement (discussed below).
- No statute, regulation, order, decree, writ, ruling or injunction by any court or governmental authority of competent jurisdiction shall have been enacted, entered, promulgated, threatened or endorsed which prohibits the consummation of or which would materially modify or delay any of the transactions contemplated by the Purchase Agreement and the Registration Rights Agreement.

- No action, suit or proceeding before any arbitrator or any court or governmental authority shall have been commenced or threatened, and no inquiry or investigation by any governmental authority shall have been commenced or threatened seeking to restrain, prevent or change the transactions contemplated by the Purchase Agreement or the Registration Rights Agreement, or seeking material damages in connection with such transaction.
- The absence of any condition, occurrence, state of facts or event having, or insofar as reasonably can be foreseen would likely have, any effect on our business, operations, properties or financial condition that is material and adverse to us.

There is no guarantee that we will be able to meet the foregoing conditions or any of the other conditions in the Purchase Agreement or that we will be able to draw down any portion of the amounts available under the equity line with Commerce Court.

The Purchase Agreement may be terminated at any time by the mutual written consent of the parties. Unless earlier terminated, the Purchase Agreement will terminate automatically on the earlier to occur of (i) the first day of the month next following the 24-month anniversary of the effective date of the registration statement of which this prospectus forms a part (which term may not be extended by the parties) or (ii) the date on which Commerce Court purchases the entire commitment amount under the Purchase Agreement. We may terminate the Purchase Agreement on one trading day prior written notice to Commerce Court, subject to certain conditions. Commerce Court may terminate the Purchase Agreement effective upon one trading day prior written notice to us under certain circumstances, including the following:

- The existence of any condition, occurrence, state of facts or event having, or insofar as reasonably can be foreseen would likely have, any effect on our business, operations, properties or financial condition that is material and adverse to us.
- We enter into an agreement providing for certain types of financing transactions that are similar to the equity line with Commerce Court.
- Certain transactions involving a change in control of the company or the sale of all or substantially all of our assets have occurred.
- We are in breach or default in any material respect under any of the provisions of the Purchase Agreement or the Registration Rights Agreement, and, if such breach or default is capable of being cured, such breach or default is not cured within 10 trading days after notice of such breach or default is delivered to us.
- While Commerce Court holds any shares issued under the Purchase Agreement, the effectiveness of the registration statement that includes this prospectus is suspended or the use of this prospectus is suspended or prohibited, and such suspension or prohibition continues for a period of 20 consecutive trading days or for more than an aggregate of 60 trading days in any 365-day period, subject to certain exceptions.
- Trading in our common stock is suspended or our common stock ceases to be listed or quoted on a trading market, and such suspension or failure continues for a period of 20 consecutive trading days or for more than an aggregate of 60 trading days in any 365-day period.
- We have filed for and/or are subject to any bankruptcy, insolvency, reorganization or liquidation proceedings.

The Purchase Agreement provides that no termination of the Purchase Agreement will limit, alter, modify, change or otherwise affect any of the parties' rights or obligations with respect to any pending draw down notice, and that the parties must fully perform their respective obligations with respect to any such pending draw down notice under the Purchase Agreement, provided all of the conditions to the settlement thereof are timely satisfied. The Purchase Agreement also provides for indemnification of Commerce Court and its affiliates in the event that Commerce Court incurs losses, liabilities, obligations, claims, contingencies, damages, costs and expenses related to a breach by us of any of our representations and warranties under the Purchase Agreement or the other related transaction documents or any action instituted against Commerce Court or its affiliates due to the transactions contemplated by the Purchase Agreement or other transaction documents, subject to certain limitations.

We agreed to pay up to \$25,000 of reasonable attorneys' fees and expenses (exclusive of disbursements and out-of-pocket expenses) incurred by Commerce Court in connection with the preparation, negotiation, execution and delivery of the Purchase Agreement and related transaction documentation. Further, if we issue a draw down notice and fail to deliver the shares to Commerce Court on the applicable settlement date, and such failure continues for 10 trading days, we agreed to pay Commerce Court, in addition to all other remedies available to Commerce Court under the Purchase Agreement, an amount in cash equal to 2.0% of the purchase price of such shares for each 30-day period the shares are not delivered, plus accrued interest.

In connection with the Purchase Agreement, we entered into a registration rights agreement with Commerce Court, dated August 16, 2011 (the "Registration Rights Agreement"), pursuant to which we granted to Commerce Court certain registration rights related to the Commitment Shares and the shares issuable under the Purchase Agreement. Pursuant to the Registration Rights Agreement, we have filed with the SEC a registration statement, of which this prospectus is a part, relating to the selling shareholder's resale of the 27,737 Commitment Shares and up to 2,472,263 shares of common stock that may be purchased by Commerce Court under the Purchase Agreement. The effectiveness of this registration statement is a condition precedent to our ability to sell common stock to Commerce Court under the Purchase Agreement.

We also agreed, among other things, to indemnify Commerce Court from certain liabilities and fees and expenses of Commerce Court incident to our obligations under the Registration Rights Agreement, including certain liabilities under the Securities Act. Commerce Court has agreed to indemnify and hold harmless us and each of our directors, officers and persons who control us against certain liabilities that may be based upon written information furnished by Commerce Court to us for inclusion in a registration statement pursuant to the Registration Rights Agreement, including certain liabilities under the Securities Act.

Reedland Capital Partners, an Institutional Division of Financial West Group, member FINRA/SIPC, served as our placement agent in connection with the financing arrangement contemplated by the Purchase Agreement. We have agreed to pay Reedland, upon each sale of our common stock to Commerce Court under the Purchase Agreement, a fee equal to 1.0% of the aggregate dollar amount of common stock purchased by Commerce Court upon settlement of each such sale. We have agreed to indemnify and hold harmless Reedland against certain liabilities, including certain liabilities under the Securities Act.

On October 1, 2009, we entered into a Common Stock Purchase Agreement with Commerce Court for a prior equity line of credit arrangement (the "Prior Purchase Agreement"), which was terminated in August 2011. On the closing date of the Prior Purchase Agreement, we also issued warrants to purchase up to an aggregate of 400,000 shares of our common stock, as follows: (i) a warrant, pursuant to which Commerce Court may purchase up to 166,667 shares of our common stock at an initial exercise price of \$6.76; (ii) a warrant, pursuant to which Commerce Court may purchase up to 166,667 shares of our common stock at an initial exercise price of \$8.08; and (iii) a warrant, pursuant to which Commerce Court may purchase up to 66,666 shares of our common stock at an initial exercise price of \$9.44. The warrants may be exercised at any time or from time to time between April 1, 2010 and April 1, 2015. The warrants may not be offered for sale, sold, transferred or assigned without our consent, in whole or in part, to any person other than an affiliate of Commerce Court. If we (i) pay a stock dividend on our common stock or otherwise make a distribution that is payable in shares of common stock, (ii) subdivide our common stock into a larger number of shares or (iii) combine our then outstanding shares of common stock into a smaller number of shares, for example, by effecting a reverse stock split, then in each case the exercise price of the warrants and the number of shares issuable upon the exercise of the warrants will be proportionately adjusted. If after April 1, 2010, our common stock trades at a price greater than 140% of the exercise price of any warrant for a period of 10 consecutive trading days and we meet certain equity conditions, then we have the right to effect a mandatory exercise of such warrant. The shares of our common stock underlying the warrants were registered pursuant to the Company's previously filed Registration Statement on Form S-3 (File No. 333-160437). This prospectus covers the exercise of the warrants and the resale of the shares of our common stock underlying the warrants. Other than the 27,737 Commitment Shares issued to Commerce Court, no additional shares have been issued to Commerce Court.

The foregoing description of the Purchase Agreement, the Registration Rights Agreement and the Prior Purchase Agreement is qualified in its entirety by reference to the full text of the Purchase Agreement, the Registration Rights Agreement and the Prior Purchase Agreement, copies of which have been filed as exhibits to the registration statement of which this prospectus is a part.

## Selling Shareholder

This prospectus relates to the possible resale from time to time by the selling shareholder of (i) up to 2,472,263 shares of common stock that may be issued by us to Commerce Court under the Purchase Agreement, (ii) 27,737 shares of common stock that have been issued as of the date hereof to Commerce Court as Commitment Shares under the terms of the Purchase Agreement and (iii) up to 400,000 shares of common stock that may be issued by us to Commerce Court upon exercise of outstanding warrants held by Commerce Court. For additional information regarding the issuance of common stock covered by this prospectus, see “Description of Securities Being Registered” above. We are registering the shares of common stock that may be issued by us to Commerce Court under the Purchase Agreement pursuant to the provisions of the Registration Rights Agreement in order to permit the selling shareholder to offer the shares for resale from time to time. Except for the ownership of the Commitment Shares, of common stock and warrants to purchase common stock issued to Commerce Court under the Prior Purchase Agreement and for the transactions contemplated by the Purchase Agreement, the Registration Rights Agreement and the Prior Purchase Agreement, Commerce Court has not had any material relationship with us within the past three years. Other than the 27,737 Commitment Shares issued to Commerce Court, no additional shares have been issued to Commerce Court pursuant to the Purchase Agreement.

The table below presents information regarding the selling shareholder and the shares of common stock that it may offer from time to time under this prospectus. This table is prepared based on information supplied to us by the selling shareholder, and reflects holdings as of August 3, 2012. As used in this prospectus, the term “selling shareholder” includes any donees, pledgees, transferees or other successors in interest selling shares received after the date of this prospectus from the selling shareholder as a gift, pledge or other non-sale related transfer. The number of shares in the column entitled “Maximum Number of Shares of Common Stock to be Offered Pursuant to this Prospectus” represents all of the shares of common stock that the selling shareholder may offer under this prospectus. The selling shareholder may sell some, all or none of its shares in this offering. We do not know how long the selling shareholder will hold the shares before selling them, and we currently have no agreements, arrangements or understandings with the selling shareholder regarding the sale of any of the shares.

Beneficial ownership is determined in accordance with Rule 13d-3(d) promulgated by the SEC under the Exchange Act, and includes shares of common stock with respect to which the selling shareholder has voting and investment power. The percentage of shares of common stock beneficially owned by the selling shareholder prior to the offering shown in the table below is based on an aggregate of 24,060,945 shares of our common stock outstanding on August 3, 2012. Because the purchase price of the shares of common stock issuable under the Purchase Agreement is determined on each settlement date, the number of shares that may actually be sold by us under the Purchase Agreement may be fewer than the number of shares being offered by this prospectus. The fourth column assumes the sale of all of the shares offered by the selling shareholder pursuant to this prospectus.

<u>Selling Shareholder</u>	<b>Number of Shares of Common Stock Owned Prior to Offering</b>		<b>Maximum Number of Shares of Common Stock to be Offered Pursuant to this Prospectus<sup>(3)</sup></b>	<b>Number of Shares of Common Stock Owned After Offering</b>	
	<u>Number<sup>(1)</sup></u>	<u>Percent<sup>(2)</sup></u>		<u>Number</u>	<u>Percent</u>
Commerce Court Small Cap Value Fund, Ltd. <sup>(4)</sup>	400,000	1.7%	2,900,000	—	—

- (1) This number represents 400,000 shares of common stock underlying outstanding warrants held by Commerce Court. In accordance with Rule 13d-3(d) under the Exchange Act, we have excluded from the number of shares beneficially owned prior to the offering all of the shares that Commerce Court may be required to purchase under the Purchase Agreement because the issuance of such shares is solely at our discretion and is subject to certain conditions, the satisfaction of all of which are outside of Commerce Court's control, including the registration statement of which this prospectus is a part becoming and remaining effective. Furthermore, the maximum dollar value of each put of common stock to Commerce Court under the Purchase Agreement is subject to certain agreed upon threshold limitations set forth in the Purchase Agreement, which are based on the market price of our common stock at the time of the draw down and, if we determine in our sole discretion, a percentage of the daily trading volume of our common stock during the draw down period as well. Also, under the terms of the Purchase Agreement, we may not issue shares of our common stock to Commerce Court to the extent that Commerce Court or any of its affiliates would, at any time, beneficially own more than 9.9% of our outstanding common stock. This beneficial ownership limitation may not be waived by the parties.
- (2) Applicable percentage ownership is based on 24,060,945 shares of our common stock outstanding as of August 3, 2012.
- (3) Assumes the sale of all shares being offered pursuant to this prospectus.
- (4) The business address of Commerce Court is c/o Fiduciary Services (BVI) Limited, Qwomar Complex, 4th Floor, P.O. Box 3170, Road Town, Tortola, British Virgin Islands. Commerce Court's principal business is that of an international asset manager. We have been advised that Commerce Court is not a member of FINRA, or an independent broker-dealer, and that neither Commerce Court nor any of its affiliates is an affiliate or an associated person of any FINRA member or independent broker-dealer. Graham J. Farinha and Peter W. Poole are directors of Commerce Court and have voting control and investment discretion over securities owned by Commerce Court. The foregoing should not be construed in and of itself as an admission by Mr. Farinha or Mr. Poole as to beneficial ownership of the securities owned by Commerce Court.

### **Plan Of Distribution**

We are registering (i) up to 2,472,263 shares of common stock that may be issued by us to Commerce Court under the Purchase Agreement, (ii) 27,737 shares of common stock that have been issued as of the date hereof to Commerce Court as Commitment Shares under the terms of the Purchase Agreement and (iii) up to 400,000 shares of common stock that may be issued by us to Commerce Court upon exercise of outstanding warrants held by Commerce Court, to permit the resale of these shares of common stock by the selling shareholder from time to time after the date of this prospectus. We will not receive any of the proceeds from the sale by the selling shareholder of the shares of common stock. We will, however, receive proceeds upon the exercise of the warrants to purchase an aggregate of up to 400,000 shares of our common stock held by the selling shareholder to the extent such warrants are exercised for cash. We will bear all fees and expenses incident to our obligation to register the shares of common stock.

The selling shareholder may decide not to sell any shares of common stock. The selling shareholder may sell all or a portion of the shares of common stock beneficially owned by it and offered hereby from time to time directly or through one or more underwriters, broker-dealers or agents, who may receive compensation in the form of discounts, concessions or commissions from the selling shareholder and/or the purchasers of the shares of common stock for whom they may act as agent. In effecting sales, broker-dealers that are engaged by the selling shareholder may arrange for other broker-dealers to participate. Commerce Court is an "underwriter" within the meaning of the Securities Act. Any brokers, dealers or agents who participate in the distribution of the shares of common stock by the selling shareholder may also be deemed to be "underwriters," and any profits on the sale of the shares of common stock by them and any discounts, commissions or concessions received by any such brokers, dealers or agents may be deemed to be underwriting discounts and commissions under the Securities Act. Commerce Court has advised us that it will use an unaffiliated broker-dealer to effectuate all resales of our common stock. To our knowledge, the selling shareholder has not entered into any agreement, arrangement or understanding with any particular broker-dealer or market maker with respect to the shares of common stock offered hereby, nor do we know the identity of the broker-dealers or market makers that may participate in the resale of the shares. Because Commerce Court is, and any broker, dealer or agent who participates in the distribution of the shares of common stock by Commerce Court may be deemed to be, an "underwriter" within the meaning of the Securities Act, Commerce Court will (and any such broker, dealer or agent may) be subject to the prospectus delivery requirements of the Securities Act and may be subject to certain statutory liabilities of the Securities Act (including, without limitation, Sections 11, 12 and 17 thereof) and Rule 10b-5 under the Exchange Act.

The selling shareholder will act independently of us in making decisions with respect to the timing, manner and size of each sale. The shares of common stock may be sold in one or more transactions at fixed prices, at prevailing market prices at the time of the sale, at varying prices determined at the time of sale, or at negotiated prices. These sales may be effected in transactions, which may involve crosses or block transactions, pursuant to one or more of the following methods:

- on any national securities exchange or quotation service on which the securities may be listed or quoted at the time of sale;
- in the over-the-counter market in accordance with the rules of the National Association of Securities Dealers, Inc.;
- in transactions other than on these exchanges or systems or in the over-the-counter market;
- through the writing or settlement of options, whether such options are listed on an options exchange or otherwise;
- ordinary brokerage transactions and transactions in which the broker-dealer solicits purchasers;
- block trades in which the broker-dealer will attempt to sell the shares as agent but may position and resell a portion of the block as principal to facilitate the transaction;
- purchases by a broker-dealer as principal and resale by the broker-dealer for its account;
- an exchange distribution in accordance with the rules of the applicable exchange;
- privately negotiated transactions;
- broker-dealers may agree with the selling shareholder to sell a specified number of such shares at a stipulated price per share;
- a combination of any such methods of sale; and
- any other method permitted pursuant to applicable law.

The selling shareholder may also sell shares of common stock covered by this prospectus pursuant to Rule 144 promulgated under the Securities Act, if available, rather than under this prospectus. In addition, the selling shareholder may transfer the shares of common stock by other means not described in this prospectus.

Any broker-dealer participating in such transactions as agent may receive commissions from the selling shareholder (and, if they act as agent for the purchaser of such shares, from such purchaser). Commerce Court has informed us that each such broker-dealer will receive commissions from Commerce Court which will not exceed customary brokerage commissions. Broker-dealers may agree with the selling shareholder to sell a specified number of shares at a stipulated price per share, and, to the extent such a broker-dealer is unable to do so acting as agent for the selling shareholder, to purchase as principal any unsold shares at the price required to fulfill the broker-dealer commitment to the selling shareholder. Broker-dealers who acquire shares as principal may thereafter resell such shares from time to time in one or more transactions (which may involve crosses and block transactions and which may involve sales to and through other broker-dealers, including transactions of the nature described above and pursuant to the one or more of the methods described above) at fixed prices, at prevailing market prices at the time of the sale, at varying prices determined at the time of sale, or at negotiated prices, and in connection with such resales may pay to or receive from the purchasers of such shares commissions computed as described above. To the extent required under the Securities Act, an amendment to this prospectus or a supplemental prospectus will be filed, disclosing:

- the name of any such broker-dealers;
- the number of shares involved;

- the price at which such shares are to be sold;
- the commission paid or discounts or concessions allowed to such broker-dealers, where applicable;
- that such broker-dealers did not conduct any investigation to verify the information set out or incorporated by reference in this prospectus, as supplemented; and
- other facts material to the transaction.

The selling shareholder has informed us that it does not have any written or oral agreement or understanding, directly or indirectly, with any person to distribute the common stock. Pursuant to a requirement of FINRA, the maximum commission or discount and other compensation to be received by any FINRA member or independent broker-dealer shall not be greater than eight percent (8%) of the gross proceeds received by us for the sale of any securities being registered pursuant to Rule 415 under the Securities Act.

Under the securities laws of some states, the shares of common stock may be sold in such states only through registered or licensed brokers or dealers. In addition, in some states the shares of common stock may not be sold unless such shares have been registered or qualified for sale in such state or an exemption from registration or qualification is available and is complied with.

There can be no assurance that the selling shareholder will sell any or all of the shares of common stock registered pursuant to the registration statement, of which this prospectus forms a part.

Underwriters and purchasers that are deemed underwriters under the Securities Act may engage in transactions that stabilize, maintain or otherwise affect the price of the common stock, including the entry of stabilizing bids or syndicate covering transactions or the imposition of penalty bids. The selling shareholder and any other person participating in the sale or distribution of the shares of common stock will be subject to applicable provisions of the Exchange Act and the rules and regulations thereunder (including, without limitation, Regulation M of the Exchange Act), which may restrict certain activities of, and limit the timing of purchases and sales of any of the shares of common stock by, the selling shareholder and any other participating person. To the extent applicable, Regulation M may also restrict the ability of any person engaged in the distribution of the shares of common stock to engage in market-making and certain other activities with respect to the shares of common stock. In addition, the anti-manipulation rules under the Exchange Act may apply to sales of the shares of common stock in the market. All of the foregoing may affect the marketability of the shares of common stock and the ability of any person or entity to engage in market-making activities with respect to the shares of common stock.

We have agreed to pay all expenses of the registration of the shares of common stock registered pursuant to the registration statement, of which this prospectus forms a part, estimated to be up to \$76,055.28 in total, including, without limitation, SEC filing fees and expenses of compliance with state securities or “Blue Sky” laws; provided, however, the selling shareholder will pay all selling commissions, concessions and discounts, and other amounts payable to underwriters, dealers or agents, if any, as well as transfer taxes and certain other expenses associated with the sale of the shares of common stock. We have agreed to indemnify the selling shareholder and certain other persons against certain liabilities in connection with the offering of shares of common stock offered hereby, including liabilities arising under the Securities Act or, if such indemnity is unavailable, to contribute amounts required to be paid in respect of such liabilities. The selling shareholder has agreed to indemnify us against liabilities under the Securities Act that may arise from any written information furnished to us by the selling shareholder specifically for use in this prospectus or, if such indemnity is unavailable, to contribute amounts required to be paid in respect of such liabilities.

At any time a particular offer of the shares of common stock is made by the selling shareholder, a revised prospectus or prospectus supplement, if required, will be distributed. Such prospectus supplement or post-effective amendment will be filed with the SEC to reflect the disclosure of any required additional information with respect to the distribution of the shares of common stock. We may suspend the sale of shares by the selling shareholder pursuant to this prospectus for certain periods of time for certain reasons, including if the prospectus is required to be supplemented or amended to include additional material information.

### General Matters

Our authorized capital stock consists of 50,000,000 shares of common stock, no par value, and 5,882,352 shares of preferred stock, \$0.0001 par value. As of August 3, 2012, we had 24,060,945 shares of common stock outstanding and no shares of preferred stock issued or outstanding.

### Common Stock

Holders of common stock are entitled to one vote per share on matters to be voted upon by the shareholders of our company. Subject to the preferences that may be applicable to any outstanding shares of preferred stock, the holders of common stock are entitled to receive ratably such dividends, if any, as may be declared by the Board of Directors out of funds legally available therefor. In the event of liquidation, dissolution or winding up of our company, the holders of common stock are entitled to share ratably in all assets remaining after payment of liabilities, subject to the prior liquidation rights of any outstanding shares of preferred stock. The common stock has no preemptive, redemption, conversion or other subscription rights. The outstanding shares of common stock are, and the shares offered by us in the offering will be, when issued and paid for, fully paid and nonassessable. The rights, preferences and privileges of holders of common stock are subject to, and may be adversely affected by, the rights of the holders of shares of any series of preferred stock currently outstanding or which we may designate and issue in the future.

### Warrants Issued to Commerce Court

As of June 30, 2012, we had outstanding warrants to purchase an aggregate of 750,010 shares of our common stock. 400,000 warrants to purchase common stock were issued to Commerce Court on October 1, 2009 in connection with the Prior Purchase Agreement. Those warrants are exercisable on or prior to April 1, 2015 and give Commerce Court the right to purchase up to (i) 166,667 shares of our common stock at an initial exercise price of \$6.76; (ii) 166,667 shares of our common stock at an initial exercise price of \$8.08; and (iii) 66,666 shares of our common stock at an initial exercise price of \$9.44.

### Antitakeover Effects of Provisions of Our Restated Certificate of Incorporation and Amended Bylaws

Our Board of Directors is divided into three classes. As a result of this provision, at least two annual meetings of shareholders may be required for shareholders to change a majority of the Board of Directors. Our by-laws provide that the Board of Directors shall consist of not less than six nor more than twelve members, with the exact number to be determined by the vote of not less than 66 2/3 % of the Board of Directors from time to time. Directors are elected to serve staggered three-year terms and are not subject to removal except for cause by the vote of the holders of at least 80% of our capital stock. Unless otherwise required by law, vacancies on the Board of Directors, including vacancies resulting from an increase in the number of directors or the removal of directors, may only be filled by an affirmative vote of 66 2/3% of the directors then in office. The classification of directors, the ability of the Board of Directors to increase the number of directors, the inability of the shareholders to remove directors without cause or fill vacancies on the Board of Directors and the inability of holders of less than 80% of our capital stock to remove directors even with cause will make it more difficult to change the Board of Directors, and will promote the continuity of existing management.

These and other provisions also may have the effect of deterring, preventing or delaying changes in control or management. These provisions are intended to enhance the likelihood of continued stability in the composition of the Board of Directors and in the policies furnished by the Board of Directors and to discourage types of transactions that may involve an actual or threatened change of control. These provisions are designed to reduce our vulnerability to an unsolicited acquisition proposal. The provisions also are intended to discourage tactics that may be used in proxy fights. However, such provisions could have the effect of discouraging others from making tender offers for our shares and, as a consequence, they also may inhibit fluctuations in the market price of our shares that could result from actual or rumored takeover attempts. These provisions also may have the effect of preventing changes in our management.



## **New Jersey Shareholders Protection Act**

The New Jersey Shareholders Protection Act, NJSA 14A:10A–1 et seq., which we refer to as New Jersey Act, prohibits certain New Jersey corporations, such as us following this offering, from entering into certain “business combinations” with an “interested shareholder” (any person who is the beneficial owner of 10% or more of such corporation's outstanding voting securities) for five years after such person became an interested shareholder, unless the business combination or the interested shareholder's acquisition of stock was approved by the corporation's Board of Directors prior to such interested shareholder's stock acquisition date. After the five-year waiting period has elapsed, a business combination between such corporation and an interested shareholder will be prohibited unless the business combination is approved by the holders of at least two-thirds of the voting stock not beneficially owned by the interested shareholder, or unless the business combination satisfies the New Jersey Act's fair price provision intended to provide that all shareholders (other than the interested shareholders) receive a fair price for their shares.

The New Jersey Act defines “business combination” to include the following transactions between a corporation or a subsidiary and an interested shareholder or such interested shareholder's affiliates: (1) the merger or consolidation of the corporation with the interested shareholder or any corporation that after the merger or consolidation would be an affiliate or associate of the interested shareholder; (2) any sale, lease, exchange, mortgage, pledge, transfer or other disposition to or with the interested shareholder, which has an aggregate market value equal to 10% or more of the aggregate market value of all of the assets or of the outstanding stock, or 10% or more of the income of the corporation or its subsidiaries; (3) the issuance or transfer to the interested shareholder of any stock of the corporation having an aggregate market value equal to or greater than 5% of the corporation's outstanding stock; (4) the adoption of a plan or proposal for the liquidation or dissolution of the corporation proposed by the interested shareholder; (5) any reclassification of securities proposed by the interested shareholder that has the effect, directly or indirectly, of increasing any class or series of stock that is owned by the interested shareholder; and (6) the receipt by the interested shareholder of any loans or other financial assistance from the corporation.

The New Jersey Act does not apply to certain business combinations, including those with persons who acquired 10% or more of the voting power of the corporation prior to the time the corporation was required to file periodic reports pursuant to the Exchange Act or prior to the time the corporation's securities began to trade on a national securities exchange.

## **Transfer Agent and Registrar**

The Transfer Agent and Registrar for our common stock is American Stock Transfer & Trust Company, New York, New York.

## **Listing**

Our shares of common stock are quoted on The NASDAQ Global Market under the symbol “EMKR”.

## **Legal Matters**

The validity of the securities being offered and registered hereby will be passed upon by Dillon, Bitar & Luther, L.L.C. Morristown, New Jersey. Certain other legal matters in connection with the offering will be passed upon by Jenner & Block LLP.

## Experts

The consolidated financial statements of EMCORE Corporation as of September 30, 2011 and 2010 and for each of the years in the two-year period ended September 30, 2011, and management's assessment of the effectiveness of internal control over financial reporting as of September 30, 2011 have been incorporated by reference herein and in the registration statement in reliance upon the reports of KPMG LLP, independent registered public accounting firm, incorporated by reference herein, and upon the authority of said firm as experts in accounting and auditing.

The audit report on the effectiveness of internal control over financial reporting as of September 30, 2011, expresses an opinion that EMCORE Corporation did not maintain effective internal control over financial reporting as of September 30, 2011 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.

The report of KPMG LLP dated December 29, 2011 on the consolidated financial statements refers to a change in the annual testing date for goodwill impairment.

The consolidated financial statements of EMCORE Corporation for the year ended September 30, 2009 incorporated in this prospectus by reference from the Company's Annual Report on Form 10-K for the year ended September 30, 2011, have been audited by Deloitte & Touche LLP, an independent registered public accounting firm, as stated in their report which is incorporated herein by reference. Such financial statements have been so incorporated in reliance upon the report of such firm given upon their authority as experts in accounting and auditing.

## Where You Can Find Additional Information

We have filed a registration statement on Form S-3 with the SEC relating to the securities offered by this prospectus. This prospectus does not contain all of the information set forth in the registration statement and the exhibits and schedules thereto. We have omitted parts of the registration statement, as permitted by the rules and regulations of the SEC. Statements contained in this prospectus as to the contents of any contract or other document referred to are not necessarily complete and in each instance reference is made to the copy of such contract or other document filed as an exhibit to the registration statement, each such statement being qualified in all respects by such reference. For further information with respect to us and the securities offered hereby, reference is made to such registration statement, exhibits and schedules.

We are subject to the information and periodic reporting requirements of the Exchange Act, and in accordance therewith file periodic reports, current reports, proxy statements and other information with the SEC. Such periodic reports, current reports, proxy statements, other information and a copy of the registration statement on Form S-3 may be inspected by anyone without charge and copies of these materials may be obtained upon the payment of the fees prescribed by the SEC, at the Public Reference Room maintained by the SEC at 100 F Street, N.E., Washington, D.C. 20549. The public may obtain information on the operation of the Public Reference Room by calling the SEC at 1-800-SEC-0330. The registration statement on Form S-3 and the periodic reports, current reports, proxy statements and other information incorporated by reference herein or otherwise filed by us are also available to the public through the SEC's website at <http://www.sec.gov> and through our website at <http://www.emcore.com/investor>.

## Incorporation Of Certain Information By Reference

The SEC allows us to incorporate by reference in this prospectus the information in documents we file with the SEC, which means that we can disclose important information to you by referring you to those documents. The information in this prospectus updates (and, to the extent of any conflict, supersedes) information incorporated by reference that we have filed with the SEC prior to the date of this prospectus. **You should read all of the information incorporated by reference because it is an important part of this prospectus.**

We incorporate by reference the documents listed below (SEC File No. 000-22175), excluding any portions of any Current Report on Form 8-K that are not deemed “filed” pursuant to the General Instructions of Form 8-K:

- Annual report on Form 10-K for the fiscal year ended September 30, 2011, filed with the SEC on December 29, 2011;
- The information specifically incorporated by reference into our Annual Report on Form 10-K for the fiscal year ended September 30, 2011 from our definitive proxy statement on Schedule 14A for our 2012 Annual Meeting of Shareholders filed with the SEC on January 27, 2012;
- Quarterly Reports on Form 10-Q for the quarters ended December 31, 2011, March 31, 2012 and June 30, 2012 filed with the SEC on February 14, 2012, May 3, 2012 (as amended by our Form 10-Q/A filed with the SEC on August 7, 2012), and August 8, 2012, respectively;
- Current Reports on Forms 8-K filed with the SEC on November 9, 2011, December 28, 2011, January 27, 2012, February 16, 2012, March 13, 2012, March 28, 2012, May 8, 2012, June 20, 2012, and August 9, 2012; and,
- The description of our common stock contained in our Registration Statement on Form 8-A filed with the SEC on February 26, 1997, including any amendments or reports filed for the purpose of updating such description.

We also incorporate by reference any future filings made with the SEC by us under Sections 13(a), 13(c), 14 or 15(d) of the Securities Exchange Act of 1934 (other than filings or portions of filings that are furnished under applicable SEC rules rather than filed), including those made after the date of filing of the initial registration statement of which this prospectus is a part and prior to its effectiveness, until we file a post-effective amendment that indicates the termination of the offering of the securities made by this prospectus. Information in such future filings updates and supplements the information provided in this prospectus. Any statements in any such future filings will automatically be deemed to modify and supersede any information in any document we previously filed with the SEC that is incorporated or deemed to be incorporated herein by reference to the extent that statements in the later filed document modify or replace such earlier statements.

We hereby undertake to provide without charge to each person, including any beneficial owner, to whom a copy of this prospectus is delivered, upon written or oral request of any such person, a copy of any and all of the reports or documents that have been incorporated by reference in this prospectus but not delivered with the prospectus, including exhibits which are specifically incorporated by reference into such documents. Requests for such copies should be directed to our Investor Relations department, at the following address or telephone number:

Attention: Investor Relations  
EMCORE Corporation  
10420 Research Road, SE  
Albuquerque, New Mexico 87123  
(505) 332-5000



## **Prospectus**

II -1

## INFORMATION NOT REQUIRED IN PROSPECTUS

**Item 14. Other Expenses of Issuance and Distribution**

The following table sets forth all costs and expenses, other than underwriting discounts and commissions, to be paid in connection with the sale of the securities being registered hereunder, all of which will be paid by us. All of the amounts shown are estimates except for the SEC registration fee.

SEC registration fee	\$ 2,055.28
Legal fees and expenses	\$ 40,000.00
Accounting fees and expenses	\$ 24,000.00
Miscellaneous expenses	\$ 10,000.00
Total	<u>\$ 76,055.28</u>

**Item 15. Indemnification of Directors and Officers**

Our restated certificate of incorporation and amended bylaws include provisions (i) reducing the personal liability of our directors for monetary damage resulting from breaches of their fiduciary duty, and (ii) permitting us to indemnify our directors and officers to the fullest extent permitted by New Jersey law. We have obtained directors' and officers' liability insurance that insures such persons against the costs of defense, settlement, or payment of a judgment under certain circumstances.

Subject to certain limitations, we are obligated to indemnify our current and former directors, officers and employees in connection with the investigation of our historical stock option granting practices, related government investigation and shareholder litigation. These obligations arise under the terms of our restated certificate of incorporation, our amended bylaws, applicable contracts and New Jersey law. The obligation to indemnify generally means that we are required to pay or reimburse the individuals' reasonable legal expenses and possibly damages and other liabilities incurred in connection with these matters. We are currently paying or reimbursing legal expenses being incurred in connection with these matters by a number of our current and former directors, officers and employees. The maximum potential amount of future payments we could be required to make under these indemnification agreements is unlimited; however, we have a director and officer liability insurance policy that limits its exposure and enables it to recover a portion of any future amounts paid.

## Item 16. Exhibits

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|--------|--|
| 3.1    | Restated Certificate of Incorporation, dated April 4, 2008 (incorporated by reference to Exhibit 3.1 to the Company's Current Report on Form 8-K filed on April 4, 2008).  |
| 3.2    | Certificate of Amendment of Restated Certificate of Incorporation, dated February 15, 2012 (incorporated by reference to Exhibit 3.1 to the Company's Current Report on Form 8-K filed on February 16, 2012).  |
| 3.3    | Amended By-Laws, as amended through August 6, 2012 (incorporated by reference to Exhibit 3.1 to the Company's Current Report on Form 8-K filed on August 9, 2012).   |
| 4.1    | Specimen Certificate for Shares of Common Stock (incorporated by reference to Exhibit 4.1 to Amendment No. 3 to the registration statement on Form S-1 filed on February 24, 1997).  |
| 4.2    | Registration Rights Agreement, dated August 16, 2011, by and between the Company and Commerce Court Small Cap Value Fund, Ltd. (incorporated by reference to Exhibit 4.1 to the Company's Current Report on Form 8-K filed on August 16, 2011).          |
| 4.3    | Common Stock Purchase Agreement, dated as of August 16, 2011, by and between the Company and Commerce Court Small Cap Value Fund, Ltd. (incorporated by reference to Exhibit 10.1 to the Company's Current Report on Form 8-K filed on August 16, 2011). |
| 5.1*   | Opinion of Dillon, Bitar & Luther, L.L.C.  |
| 23.1** | Consent of KPMG LLP.   |
| 23.2** | Consent of Deloitte & Touche LLP.  |
| 23.3** | Consent of Dillon, Bitar & Luther, L.L.C.  |

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\* Incorporated by reference to the exhibit with the same designation filed with the Company's registration statement on Form S-1 (Registration No. 333-176797) filed on September 12, 2011.

\*\* *Filed herewith*

**Item 17. 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 of 1933;

(ii) To reflect in the prospectus any facts or events arising after the effective date of this 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 this 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; and

(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 subparagraphs (i), (ii) and (iii) above shall not apply if the information required to be included in a post-effective amendment by those paragraphs is contained in the periodic reports filed with or furnished to the SEC by the registrant pursuant to Section 13 or Section 15(d) of the Securities Exchange Act of 1934 that are incorporated by reference in the registration statement, or is contained in a prospectus filed pursuant to Rule 424(b) that is part of the registration statement.

(2) That, for the purpose of determining any liability under the Securities Act of 1933, each such post-effective amendment shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at the 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.

(4) That, for purposes of determining liability under the Securities Act of 1933 to any purchaser:

(i) Each prospectus filed by the registrant pursuant to Rule 424(b)(3) shall be deemed to be part of the registration statement as of the date the filed prospectus was deemed part of and included in the registration statement; and

(ii) Each prospectus required to be filed pursuant to Rule 424(b)(2), (b)(5), or (b)(7) as part of a registration statement in reliance on Rule 430B relating to an offering made pursuant to Rule 415(a)(1)(i), (vii), or (x) for the purpose of providing the information required by section 10(a) of the Securities Act of 1933 shall be deemed to be part of and included in the registration statement as of the earlier of the date such form of prospectus is first used after effectiveness or the date of the first contract of sale of securities in the offering described in the prospectus. As provided in Rule 430B, for liability purposes of the issuer and any person that is at that date an underwriter, such date shall be deemed to be a new effective date of the registration statement relating to the securities in the registration statement to which that prospectus relates, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof.

*Provided, however*, that no statement made in a registration statement or prospectus that is part of the registration statement or made in a document incorporated or deemed incorporated by reference into the registration statement or prospectus that is part of the registration statement will, as to a purchaser with a time of contract of sale prior to such effective date, supersede or modify any statement that was made in the registration statement or prospectus that was part of the registration statement or made in any such document immediately prior to such effective date.

(5) That, for the purpose of determining liability of the registrant under the Securities Act of 1933 to any purchaser in the initial distribution of the securities: The undersigned registrant undertakes that in a primary offering of securities of the undersigned registrant pursuant to this registration statement, regardless of the underwriting method used to sell the securities to the purchaser, if the securities are offered or sold to such purchaser by means of any of the following communications, the undersigned registrant will be a seller to the purchaser and will be considered to offer or sell such securities to such purchaser:

(i) Any preliminary prospectus or prospectus of the undersigned registrant relating to the offering required to be filed pursuant to Rule 424;

(ii) Any free writing prospectus relating to the offering prepared by or on behalf of the undersigned registrant or used or referred to by the undersigned registrant;

(iii) The portion of any other free writing prospectus relating to the offering containing material information about the undersigned registrant or its securities provided by or on behalf of the undersigned registrant; and

(iv) Any other communication that is an offer in the offering made by the undersigned registrant to the purchaser.

(b) The undersigned registrant hereby undertakes that, for purposes of determining any liability under the Securities Act of 1933, each filing of the registrant's annual report pursuant to section 13(a) or section 15(d) of the Securities Exchange Act of 1934 (and, where applicable, each filing of an employee benefit plan's annual report pursuant to section 15(d) of the Securities Exchange Act of 1934), that is incorporated by reference in the registration statement shall be deemed to be a new registration statement relating to the securities offered therein, 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 of 1933 may be permitted to directors, officers and controlling persons of the registrant pursuant to the provisions described under Item 15 above, or otherwise, the registrant has been advised that in the opinion of the Securities and Exchange Commission such indemnification is against public policy as expressed in the Securities Act of 1933 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 of 1933 and will be governed by the final adjudication of such issue.



## SIGNATURES

Pursuant to the requirements of the Securities Act of 1933, as amended, the registrant, EMCORE Corporation, certifies that it has reasonable grounds to believe that it meets all of the requirements for filing on Form S-3 and has duly caused this registration statement to be signed on its behalf by the undersigned, thereunto duly authorized, in the City of Albuquerque, State of New Mexico, on the 10th day of August 2012.

### EMCORE CORPORATION

By: /s/ Hong Q. Hou, Ph.D.  
Chief Executive Officer  
(Principal Executive Officer)

Pursuant to the requirements of the Securities Exchange Act of 1933, this registration statement has been signed by the following persons on behalf of the registrant in the capacities indicated, on August 10, 2012.

#### Signature

/s/ Hong Q. Hou, Ph.D.

Hong Q. Hou, Ph.D.

/s/ Mark B. Weinswig

Mark B. Weinswig

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Thomas J. Russell, Ph.D.

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Reuben F. Richards, Jr.

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Robert L. Bogomolny.

\*

John Gillen

\*

Sherman McCorkle

\*

Charles T. Scott

\*

James A. Tegnalia, Ph.D.

#### Title

Chief Executive Officer and Director  
(Principal Executive Officer)

Chief Financial Officer  
(Principal Financial and Accounting Officer)

Chairman Emeritus

Executive Chairman and Chairman of the Board

Lead Independent Director

Director

Director

Director

Director

\* By: /s/ Hong Q. Hou, Ph.D.

Hong Q. Hou, Ph.D.

Attorney in Fact

**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 and to the reference to our firm under the heading "Experts" in the prospectus.

Our report dated December 29, 2011, on the effectiveness of internal control over financial reporting as of September 30, 2011, expresses our opinion that EMCORE Corporation did not maintain effective internal control over financial reporting as of September 30, 2011 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 reserve transactions and certain inventory held by third parties have been identified and included in management's assessment.

Our report dated December 29, 2011 on the consolidated financial statements refers to a change in the annual testing date for goodwill impairment.

**/s/ KPMG LLP**

KPMG LLP  
Albuquerque, New Mexico  
August 10, 2012

**CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM**

We consent to the incorporation by reference in this Registration Statement on Form S-3 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 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, 2011, and to the reference to us under the heading "Experts" in the Prospectus, which is part of this Registration Statement.

**/s/ Deloitte & Touche LLP**

DELOITTE & TOUCHE LLP  
Dallas, Texas  
August 10, 2012

August 10, 2012

EMCORE Corporation  
10420 Research Road, SE  
Albuquerque, New Mexico 87123

Re: EMCORE Corporation Registration Statement on Form S-3

Ladies and Gentlemen:

We consent to the use of our opinion dated September 12, 2011 as an exhibit to the Registration Statement and to the use of our name under the caption “Legal Matters” in the Registration Statement, including any amendment thereto. 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 and consent may be incorporated by reference in a subsequent registration statement on Form S-3 filed pursuant to Rule 462(b) under the Securities Act with respect to any of the offerings contemplated by the Registration Statement and shall cover such additional securities, if any, registered on such subsequent registration statement.

Very truly yours,

/s/ Dillon, Bitar & Luther, L.L.C.

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