As filed with the Securities and Exchange Commission on February 11, 2021.

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UNITED STATES SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

FORM S-3

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 Number)

2015 W. Chestnut Street Alhambra, California, 91803 Telephone: (626) 293-3400

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

Tom Minichiello Chief Financial Officer EMCORE Corporation 2015 W. Chestnut Street Alhambra, California 91803 Telephone: (626) 293-3400

Telephone: (626) 293-3400 (Name, address, including zip code, and telephone number, including area code, of agent for service)

Copy to:

James J. Masetti, Esq. Davina K. Kaile, Esq. Pillsbury Winthrop Shaw Pittman LLP 2550 Hanover Street Palo Alto, California 94304 (650) 233-4500

Approximate date of commencement of proposed sale to the public: As soon as practicable after this registration statement becomes effective.

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, 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. x (File No. 333-235818)

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 post-effective amendment filed pursuant to Rule 462(d) 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.

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

Large accelerated filerAccelerated filerNon-accelerated filerxSmaller reporting company
Emerging growth company

If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 7(a)(2)(B) of the Securities Act.

CALCULATION OF REGISTRATION FEE

Title of Each Class of		Proposed Maximum		Amount of
Securities to be Registered	Ag	gregate Offering Price(1)		Registration Fee(2)
Common Stock, no par value per share	\$	6,000,000	\$	655
(1) This amount is in addition to the previously registered securities with a proposed maximum aggregate offering price not to exce	eed \$30.0	000.000 on the Registration	on Sta	atement on Form S-3

(i) This another is in addition to the previously registered securities and Exchange Commission on January 27, 2020.
(File No. 333-235818), which was declared effective by the Securities and Exchange Commission on January 27, 2020.

(2) Calculated pursuant to Rule 457(o) under the Securities Act of 1933, as amended (the "Securities Act"). In accordance with Rule 462(b) under the Securities Act, an additional amount of securities having a proposed maximum aggregate offering price of \$6,000,000 are hereby registered.

This Registration Statement shall become effective upon filing in accordance with Rule 462(b) promulgated under the Securities Act of 1933, as amended.

EXPLANATORY NOTE AND INCORPORATION OF CERTAIN INFORMATION BY REFERENCE

This Registration Statement is being filed with the Securities and Exchange Commission (the "Commission") pursuant to Rule 462(b) under the Securities Act. This Registration Statement incorporates by reference the contents of, including all amendments and exhibits thereto, the Registration Statement on Form S-3 (Registration No. 333-235818) (the "Prior Registration Statement"), which was declared effective by the Commission on January 27, 2020, and is being filed solely for the purpose of registering an additional \$6,000,000 of shares of common stock. The additional shares that are being registered for sale are in an amount and at a price that together represent no more than 20% of the maximum aggregate offering price set forth in the Calculation of Registration Fee table contained in the Prior Registration Statement.

EXHIBIT INDEX

Exhibit Number	Description
5.1	Opinion of Connell Foley LLP.
23.1	Consent of KPMG LLP, an independent registered public accounting firm.
23.2	Consent of Connell Foley LLP (included in Exhibit 5.1).
24.1	Power of Attorney (incorporated by reference to the signature page of Registration Statement on Form S-3 (Registration No. 333-
	235818), filed by EMCORE Corporation on January 6, 2020).

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SIGNATURES

Pursuant to the requirements of the Securities Act of 1933, as amended, the registrant 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 February 10, 2021.

EMCORE CORPORATION

By: /s/ Jeffrey Rittichier

Jeffrey Rittichier Chief Executive Officer and President

Pursuant to the requirements of the Securities Act of 1933, this registration statement has been signed by the following persons in the capacities and on the dates indicated.

Signature	Title	Date
/s/ Jeffrey Rittichier	Chief Executive Officer, President and Director	February 10, 2021
Jeffrey Rittichier	(Principal Executive Officer)	
*	Chief Financial Officer	February 10, 2021
Tom Minichiello	(Principal Financial and Accounting Officer)	
*	Director	February 10, 2021
Stephen L. Domenik		
*	Director	February 10, 2021
Bruce Grooms		
*	Director	February 10, 2021
Noel Heiks		
*	Director	February 10, 2021
Rex S. Jackson		
By: /s/ Jeffrey Rittichier		
Jeffrey Rittichier, Attorney-in	n-Fact	

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Connell Foley LLP 56 Livingston Avenue Roseland, NJ 07068 P 973.535.0500 F 973.535.9217

February 10, 2021

EMCORE Corporation 2015 W. Chestnut Street Alhambra, CA 91803

Re: Registration of Additional Shares of EMCORE Corporation Pursuant to Rule 462(b) of the Securities Act of 1933, as amended

Ladies and Gentlemen:

We have acted as special New Jersey corporate counsel for EMCORE Corporation, a New Jersey corporation (the "<u>Company</u>"), in connection with the Company's public offering of shares of common stock pursuant to (i) the Company's registration statement on Form S-3 (Registration No. 333-235818) (the "<u>Registration Statement</u>"), filed on January 6, 2020 with the Securities and Exchange Commission (the "<u>SEC</u>") under the Securities Act of 1933, as amended (the "<u>Securities Act</u>"); (ii) the Prospectus Supplement to be filed with the SEC on or about February 10, 2021 (the "<u>Prospectus</u> <u>Supplement</u>"), relating to the sale by the Company of shares of the Company's common stock, no par value, pursuant to Rule 462(b) of the Securities Act (the "<u>462(b) Registration Statement</u>") for the purpose of registering under the Securities Act up to \$6,000,000 of additional shares of the Company's common stock, no par value (the "<u>Shares</u>"). The Shares are being issued and sold pursuant to that certain Underwriting Agreement").

We are furnishing this opinion as Exhibits 5.1 and 23.2 to the Rule 462(b) Registration Statement. No opinion is expressed herein as to any matter pertaining to the contents of the Rule 462(b) Registration Statement other than as expressly stated herein with respect to the issuance of the Shares.

In so acting, we have examined the Registration Statement, the Prospectus Supplement, the 462(b) Registration Statement, the Underwriting Agreement, the resolutions and/or written consents adopted by the Board of Directors of the Company relating to the offering of the Shares, and such other documents, corporate records, certificates of public officials and of officers and

Roseland	Jersey City	Newark	New York	Cherry Hill	Philadelphi
			nellfoley.com		
		www.con	nelitoley.com		

representatives of the Company, and have made such inquiries of such officers and representatives, as we have deemed appropriate as a basis for the opinion hereinafter set forth.

In such examination, we have assumed the genuineness of all signatures, the legal capacity and competency of all natural persons, the authenticity of all documents submitted to us as originals, the conformity to original documents of all documents submitted to us as certified, conformed or scanned copies and the authenticity of the originals of such latter documents. We have also assumed that all Shares will be issued and sold in the manner specified in the Underwriting Agreement, Registration Statement, the Prospectus Supplement and the 462(b) Registration Statement in compliance with applicable federal and state securities laws, and that certificates representing the Shares have been duly executed, countersigned, registered and delivered (or non-certificated Shares shall have been properly issued).

As to any facts material to our opinion, we have relied to the extent we deemed appropriate and without independent investigation upon statements and representations of officers of the Company and others.

Based on the examination described above, subject to the assumptions stated above and subject to the authorization, execution and delivery of the Underwriting Agreement, we are of the opinion that the Shares have been duly authorized, and if, as and when issued in the manner specified in the Underwriting Agreement, Registration Statement, the Prospectus Supplement and the 462(b) Registration Statement, will be legally issued, fully paid and non-assessable.

The opinion expressed herein is limited to the corporate law of the State of New Jersey. We express no opinion as to the laws, rules or regulations of any other jurisdiction, including, without limitation, the federal laws of the United States of America or any state securities or blue sky laws. Our opinion is provided as of the date hereof, and we undertake no obligation to advise you of any change in any matter set forth herein. Our opinion is expressly limited to the matters set forth above and we render no opinion, whether by implication or otherwise, as to any other matters relating to the Company or the Shares.

We hereby consent to the filing of this opinion letter as Exhibit 5.1 to the 462(b) Registration Statement and to the use of our name under the caption "Legal matters" in the Prospectus Supplement constituting a part of the Registration Statement. In giving such consent, we do not thereby 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 SEC promulgated thereunder.

Very truly yours,

/s/ Connell Foley LLP

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Consent of Independent Registered Public Accounting Firm

The Board of Directors EMCORE Corporation:

We consent to the use of our report dated December 7, 2020, with respect to the consolidated balance sheets of EMCORE Corporation as of September 30, 2020 and 2019, the related consolidated statements of operations and comprehensive loss, shareholders' equity, and cash flows for each of the years in the three-year period ended September 30, 2020, and the related notes, incorporated herein by reference and to the reference to our firm under the heading "Experts" in the prospectus.

Our report refers to a change in the method of accounting for leases as of October 1, 2019 due to the adoption of the Financial Accounting Standards Board's (FASB) Accounting Standards Codification (ASC) Topic 842, Leases.

/s/ KPMG LLP

Irvine, California February 10, 2020