January 10, 2025

PROSPECTUS SUPPLEMENT NO. 5



MOBIX LABS, INC. 19,905,953 SHARES OF CLASS A COMMON STOCK 3,000,000 WARRANTS TO PURCHASE SHARES OF CLASS A COMMON STOCK 6,000,000 SHARES OF CLASS A COMMON STOCK UNDERLYING WARRANTS

This prospectus supplement amends the prospectus dated July 2, 2024 (as supplemented to date, the "Prospectus") of Mobix Labs, Inc. a Delaware corporation (the "Company"), which forms a part of the Company's Registration Statement on Form S-1, as amended (No. 333-278710). This prospectus supplement is being filed to update and supplement the information included or incorporated by reference in the Prospectus with the information contained in the Current Report on Form 8-K filed with the SEC on January 6, 2025, as set forth below. This prospectus supplement should be read in conjunction with the Prospectus, which is to be delivered with this prospectus supplement.

Shares of our Class A Common Stock are listed on the Nasdaq Stock Market LLC ("Nasdaq") under the symbol "MOBX". On January 8, 2025, the closing price of our Class A Common Stock was \$1.35.

Investing in the Company's Class A Common Stock involves risks. See "Risk Factors" beginning on page 9 of the Prospectus and under similar headings in any amendments or supplements to the Prospectus.

Neither the SEC nor any other regulatory body has approved or disapproved of these securities or passed upon the adequacy or accuracy of this prospectus. Any representation to the contrary is a criminal offense.

The date of this Prospectus Supplement No. 5 is January 10, 2025.

UNITED STATES SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

FORM 8-K

	CURRENT REPORT ursuant to Section 13 or 15(d) Securities Explanes Act of 1034			
	Securities Exchange Act of 1934 te of earliest event reported): Janu	nary 3, 2025		
MOBIX LABS, INC. (Exact name of registrant as specified in its charter)				
Delaware (State or other jurisdiction	001-40621 (Commission	98-1591717 (I.R.S. Employer		
of incorporation)	File Number)	Identification No.)		
15420 Laguna Canyon Road, Suite 100, Irvine, C.	A	92618		
(Address of principal executive offices)	_	(Zip Code)		
(Registrant's	(949) 808-8888 telephone number, including area	code)		
(Former name or	N/A former address, if changed since I	ast report)		
Check the appropriate box below if the Form 8-K is intended provisions:	to simultaneously satisfy the filing	obligation of the registrant under any of the following		
☐ Written communications pursuant to Rule 425 under the Se	curities Act (17 CFR 230.425)			
☐ Soliciting material pursuant to Rule 14a-12 under the Exch.	ange Act (17 CFR 240.14a-12)			
☐ Pre-commencement communications pursuant to Rule 14d-	2(b) under the Exchange Act (17 Cl	FR 240.14d-2(b))		
☐ Pre-commencement communications pursuant to Rule 13e-	4(c) under the Exchange Act (17 CF	FR 240.13e-4(c))		
Securities registered pursuant to Section 12(b) of the Act:				
Title of each class	Trading Symbol(s)	Name of each exchange on which registered		
Class A Common Stock, par value \$0.00001 per share Redeemable warrants, each warrant exercisable for one share of Class A Common Stock	MOBX MOBXW	Nasdaq Global Market Nasdaq Capital Market		
Indicate by check mark whether the registrant is an emerging chapter) or Rule 12b-2 of the Securities Exchange Act of 1934 (le 405 of the Securities Act of 1933 (§230.405 of this		
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 13(a) of the Exchange Act. \Box

Item 5.07 Submission of Matters to a Vote of Security Holders

On January 3, 2025, Mobix Labs, Inc. (the "Company") held a Special Meeting of Stockholders (the "Meeting") to vote on five proposals, as described in the definitive proxy statement filed by the Company with the SEC on December 18, 2024 (the "Proxy Statement"). Present at the Meeting were holders of 14,582,869 Class A Common Stock of the Company (the "Class A Common Stock") and 2,129,901 Class B Common Stock of the Company (the "Class B Common Stock") represented in person or by proxy, representing approximately 66.2% of the voting power of the Common Stock as of December 16, 2024, the record date for the Meeting (the "Record Date"), and constituting a quorum for the transaction of business. As of the Record Date, there were 35,810,950 Common Stock issued and outstanding, consisting of 33,806,049 Class A Common Stock and 2,004,901 Class B Common Stock.

At the Meeting, the Company's stockholders voted on the following proposals, each of which is described in more detail in the Proxy Statement. Capitalized terms used but not defined herein have the meanings assigned to such terms in the Proxy Statement.

Set forth below are the final voting results for all the proposals presented at the Meeting:

Proposal No. 1: The Equity Grant Proposal

The Equity Grant Proposal was approved. The voting results were as follows:

For	Against	Abstentions
28,804,349	5,473,784	1,603,746

Proposal No. 2: The Equity Incentive Plan Amendment Proposal

The Equity Incentive Plan Amendment Proposal was approved. The voting results were as follows:

For	Against	Abstentions
32,932,649	2,912,915	36,315

Proposal No. 3: The 2023 Warrant Exercise Proposal

The 2023 Warrant Exercise Proposal was approved. The voting results were as follows:

For	Against	Abstentions
34.066.211	1,804,924	10.744

Proposal No. 4: The 2024 Warrant Exercise Proposal

The 2024 Warrant Exercise Proposal was approved. The voting results were as follows:

For	Against	Abstentions
35,613,502	263,464	4,913

Proposal No. 5: The Certificate of Incorporation Amendment Proposal

The Certificate of Incorporation Amendment Proposal was not approved. The voting results were as follows:

For	Against	Abstentions
35,685,144	175,808	20,927

SIGNATURE

Pursuant to the requirements of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned hereunto duly authorized.

MOBIX LABS, INC.

/s/ Keyvan Samini

Name: Keyvan Samini
Title: President and Chief Financial Officer

Date: January 6, 2025