

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

**FORM S-3
REGISTRATION STATEMENT UNDER
THE SECURITIES ACT OF 1933**

AMTECH SYSTEMS, INC.

(Exact name of registrant as specified in its charter)

Arizona
(State or other jurisdiction of
incorporation or organization)

86-0411215
(I.R.S. Employer
Identification Number)

**58 South River Drive Suite 370
Tempe, Arizona 85288
(480) 967-5146**

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

**Robert C. Daigle
Chief Executive Officer
Amtech Systems, Inc.
58 South River Drive, Suite 370
Tempe, Arizona 85288
(480) 967-5146**

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

Copy to:

**Gregory R. Hall
DLA Piper LLP (US)
2525 E. Camelback Road, Suite 1000
Phoenix, Arizona 85016
(480) 606-5100**

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: (File No. 333-294296)

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, a smaller reporting company, or an emerging growth company. See the definitions of "large accelerated filer," "accelerated filer," "smaller reporting company," and "emerging growth company" in Rule 12b-2 of the Exchange Act.

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

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.

This Registration Statement shall become effective upon filing with the Securities and Exchange Commission in accordance with Rule 462(b) of the Securities Act.

EXPLANATORY NOTE AND INCORPORATION BY REFERENCE

The registrant previously registered securities at an aggregate offering price not to exceed \$50,000,000 on a Registration Statement on Form S-3 (File No. 333-294296), which was filed by the registrant on March 13, 2026 and declared effective on March 23, 2026 (the "Prior Registration Statement"). In accordance with Rule 462(b) under the Securities Act of 1933, as amended (the "Securities Act"), and General Instruction IV.A of Form S-3, an additional number of securities having a proposed maximum aggregate offering price of \$10,000,000 is hereby registered on this Registration Statement on Form S-3 (the "Registration Statement"), representing no more than 20% of the maximum aggregate offering price of unsold securities under the Prior Registration Statement. In no event will the maximum aggregate offering price of all securities issued pursuant to this Registration Statement and the Prior Registration Statement exceed that registered under such registration statements. The contents of the Prior Registration Statement, including each of the documents filed by the Registrant with the Securities and Exchange Commission and incorporated or deemed to be incorporated by reference therein and all exhibits thereto are hereby incorporated by reference.

The required exhibits are listed on the Exhibit Index attached hereto and filed herewith.

EXHIBIT INDEX

Exhibit Number	Exhibit Title
5.1	Opinion of DLA Piper LLP (US)
23.1	Consent of KPMG LLP
23.2	Consent of DLA Piper LLP (US) (included in Exhibit 5.1)
107	Filing Fee Table

DLA Piper LLP (US)
2525 E. Camelback Road, Suite 1000
Phoenix, AZ 85016



June 1, 2026

Amtech Systems, Inc.
58 South River Drive, Suite 370
Tempe, Arizona 85288

Re: Registration Statement on Form S-3

Ladies and Gentlemen:

We have acted as counsel to Amtech Systems, Inc., an Arizona corporation (the “*Company*”), in connection with the filing of the Registration Statement on Form S-3 filed on June 1, 2026 pursuant to Rule 462(b) under the Shares Act of 1933, as amended (the “*Rule 462(b) Registration Statement*”). The Rule 462(b) Registration Statement incorporates by reference the contents of the Registration Statement on Form S-3 (File No. 333-294296) originally filed by the Company with the Securities Exchange Commission (the “*SEC*”) on March 13, 2026, and declared effective on March 23, 2026, including a base prospectus (the “*Base Prospectus*”), which provides that it will be supplemented by one or more prospectus supplements (each such prospectus supplement, together with the Base Prospectus, a “*Prospectus*”), under the Securities Act of 1933, as amended (the “*Securities Act*”). The Rule 462(b) Registration Statement covers an underwritten public offering of up to \$10,000,000.00 of the Company’s securities, including shares (the “*Shares*”) of the Company’s common stock, par value \$0.01 per share.

In connection with this opinion letter, we have examined such documents, records and other instruments as we have deemed appropriate for purposes of the opinion set forth herein. In such examination, we have assumed the genuineness of all signatures, the legal capacity of all natural persons, the authenticity of the documents submitted to us as originals, the conformity to the authentic originals of all documents submitted to us as copies. As to matters of fact relevant to our opinion set forth below, we have relied, without independent investigation, on certificates of public officials and of officers of the Company. The opinion expressed herein is limited to the Arizona Business Corporation Act.

Based upon the foregoing, we are of the opinion that the Shares have been validly issued and are fully paid and non-assessable.

We hereby consent to the use of this opinion as Exhibit 5.1 to the Rule 462(b) Registration Statement. In giving such consent, we do not hereby admit that we are acting within the category of persons whose consent is required under Section 7 of the Securities Act or the rules or regulations of the SEC thereunder.

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, the Shares or the Prospectus. This opinion is rendered as of the date hereof, and we assume no obligation to advise you of any fact, circumstance, event or development that may hereafter be brought to our attention whether or not such occurrence would alter, affect or modify the opinion expressed herein.

Very truly yours,

/s/ DLA Piper LLP (US)

DLA Piper LLP (US)

CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

We consent to the use of our report dated December 10, 2025, with respect to the consolidated financial statements of Amtech Systems, Inc. and subsidiaries, incorporated herein by reference, and to the reference to our firm under the heading "Experts" in the prospectus.

/s/ KPMG LLP

Phoenix, Arizona
June 1, 2026

Calculation of Filing Fee Tables

S-3

AMTECH SYSTEMS INC

Table 1: Newly Registered and Carry Forward Securities

Not Applicable

	Security Type	Security Class Title	Fee Calculation or Carry Forward Rule	Amount Registered	Proposed Maximum Offering Price Per Unit	Maximum Aggregate Offering Price	Fee Rate	Amount of Registration Fee	Carry Forward Form Type	Carry Forward File Number	Carry Forward Initial Effective Date	Filing Fee Previously Paid in Connection with Unsold Securities to be Carried Forward
Newly Registered Securities												
	Equity	Common Stock, par value \$0.01 per share ("Common Stock")	457(o)									
	Equity	Preferred Stock, par value \$0.01 per share ("Preferred Stock")	457(o)									
	Debt	Debt Securities	457(o)									
	Other	Warrants	457(o)									
	Other	Units	457(o)									
Fees to be Paid	1 (Unallocated Shelf)		457(o)		10,000,000.00		\$ 0.0001381	\$ 1,381.00				
Fees Previously Paid												
Carry Forward Securities												
Carry Forward Securities												
Total Offering Amounts:						\$		\$ 1,381.00				
Total Fees Previously Paid:								\$ 0.00				
Total Fee Offsets:								\$ 0.00				
Net Fee Due:								\$ 1,381.00				

Offering Note

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(1)
Calculated pursuant to 457(o) under the Securities Act of 1933, as amended, based on the proposed maximum aggregate offering price.

(2)
The registrant previously registered securities at an aggregate offering price not to exceed \$50,000,000 on a Registration Statement on Form S-3 (File No. 333-294296), which was filed by the registrant on March 13, 2026 and declared effective on March 23, 2026 (the "Prior Registration Statement"). In accordance with Rule 462(b) under the Securities Act of 1933, as amended, and General Instruction IV.A of Form S-3, an additional number of securities having a proposed maximum aggregate offering price of \$10,000,000 is hereby registered on this Registration Statement on Form S-3 (the "Registration Statement"), representing no more than 20% of the maximum aggregate offering price of unsold securities under the Prior Registration Statement. In no event will the maximum aggregate offering price of all securities issued pursuant to this Registration Statement and the Prior Registration Statement exceed that registered under such registration statements.

Table 2: Fee Offset Claims and Sources

Not Applicable

	Registrant or Filer Name	Form or Filing Type	File Number	Initial Filing Date	Filing Date	Fee Offset Claimed	Security Type Associated with Fee	Security Title Associated with Fee	Unsold Securities Associated with Fee	Unsold Aggregate Offering Amount Associated	Fee Paid with Fee
No data provided for this table.											

								Offset Claimed	Offset Claimed	Offset Claimed	with Fee Offset Claimed	Offset Source
Rules 457(b) and 0-11(a)(2)												
Fee Offset Claims												
Fee Offset Sources												
Rule 457(p)												
Fee Offset Claims												
Fee Offset Sources												

Table 3: Combined Prospectuses

Not Applicable

	Security Type	Security Class Title	Amount of Securities Previously Registered	Maximum Aggregate Offering Price of Securities Previously Registered	Form Type	File Number	Initial Effective Date
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