

Grant Solicitation for Massachusetts Robotic Digital Twin Initiative

Solicitation No. 2026-JAII-02

Massachusetts Technology Collaborative 75 North Drive Westborough, MA 01581-3340

http://www.masstech.org

Procurement Team Leader: Sharron Wall

Date Issued: 12/04/2025

Bidders' Conference: 12/11/2025 @ 10AM EST

Questions Due: 12/15/2025 @5PM EST Answers to Questions Posted: 12/19/2025 @ 5PM EST

Responses Due: 1/9/2026 @ 3PM EST

1. INTRODUCTION

1.1 Overview

The Robotics Department at the Innovation Institute is issuing this Notice of Funding Opportunity for the *Massachusetts Robotics Digital Twin Initiative*, a program which aims to increase access to robotics tools across the Commonwealth and support the robotics entrepreneurial ecosystem. The Innovation Institute will grant capital awards on a competitive basis to enable the creation of a common Digital Twin Library, while also supporting robotic companies building hardware. This NOFO seeks to provide capital grant funding to proposals for innovative robotic designs and applications and will support both the building of the robot and the creation of its digital twin, which will be publicly available for use by other researchers or entrepreneurs.

Mass Tech Collaborative will be the contracting entity on behalf of the Innovation Institute for the purposes of this NOFO, and (except where the specific context warrants otherwise), the Innovation Institute and Mass Tech Collaborative are collectively referred to as Mass Tech Collaborative or MassTech. Mass Tech Collaborative will enter into a **Capital Matching Grant Agreement** with selected Respondents containing certain standard provisions (the "Agreement"), located <u>HERE</u>.

1.2 Mass Tech Collaborative and the Innovation Institute

About the Massachusetts Technology Collaborative (Mass Tech Collaborative)

Mass Tech Collaborative is an independent public instrumentality of the Commonwealth of Massachusetts chartered by the Commonwealth to serve as a catalyst for growing its innovation economy. Mass Tech Collaborative brings together leaders from industry, academia, and government to advance technology-focused solutions that lead to economic growth, job creation, and public benefits in Massachusetts. For additional information about Mass Tech Collaborative and its programs and initiatives, please visit our website at www.masstech.org.

Established in 2004 as a division of Mass Tech Collaborative, the Innovation Institute works to support key industry clusters and to improve conditions for growth in the Commonwealth's Innovation Economy. The 'Innovation Economy' can be described as the economy that transforms knowledge into new ideas, ways or patterns of thinking, products, processes and services that fuel economic growth, create employment and wealth, and generate significant improvements in the region's standard of living. The Innovation Institute provides targeted, expert services, often accompanied by investments, to support the growth and enhance the competitiveness of key industry clusters in the Commonwealth's knowledge economy. For more information about the Innovation Institute and its activities and investments, please visit the web site at https://innovation.masstech.org.

2. The Grant

2.1 Grant Overview

Overview of the Massachusetts Robotics Ecosystem

Massachusetts is a national leader in robotics innovation, hosting more than 400 robotics companies, more than 70 dedicated R&D labs, and a strong network of academic and industry leaders. This thriving ecosystem, anchored by Boston and enriched by the availability of venture capital, a startup community,

and educational institutions, forms the backbone of the Commonwealth's robotics sector. However, further steps are needed to accelerate robotic development, especially for early-stage startups, to secure Massachusetts' leadership and expand access statewide. For more information about the Massachusetts Robotics Ecosystem, please see From Innovation to Integration, an ecosystem report published by MassTech.

Program Goals

Robotic Digital Twins are advanced simulations that replicate a robot's ability to sense and move in its environment. Experimentation on physical robots can be costly and potentially dangerous, especially when the experimentation can be unpredictable. Some examples include: 1) educational spaces, where students should feel comfortable making mistakes; 2) Al research, which involves potentially unpredictable algorithms as well as learning from failure; and 3) automating existing processes, which may require testing several different robots to find the best fit. Digital twins enable users to work with robots in a zero-risk environment because they are both low-cost and unbreakable.

There are currently significant barriers to using digital twins due to the need to build them from scratch or invest in integration services. Many of the users who would benefit most from robotic digital twins do not have the knowledge or capacity to develop them themselves. This in turn limits access to experiential robotics training, physical AI research, and robot adoption for logistics and manufacturing purposes.

This NOFO seeks to increase accessibility to robotic digital twins across the Commonwealth by supporting small-to-midsized startups or research labs to productize or manufacture their robot design, as well as develop a publicly accessible digital twin of the robot. We are seeking proposals for novel robot designs and applications from entrepreneurs and research groups willing to contribute to the MA Robotic Digital Twin Library. Preference will be given to groups whose robotic application targets manufacturing, logistics, education, or physical AI research.

2.2 Grant Requirements and Guidance

Eligibility Requirements

Applicants must be a Massachusetts-based nonprofit, university research lab, or small-to-midsized business whose primary focus is research or development of a novel, hardware-based robotic platform. To be considered, applicants must demonstrate the technical ability to develop a digital twin of their product and affirm that MassTech can make this digital twin of their product publicly available.

Applicants must also present a strong business case for productizing or manufacturing their robotic platform.

Funding

MassTech expects to make multiple capital grant awards that range from \$25,000 to \$300,000. All expenditures to be funded by the Mass Tech Collaborative under this program must be accounted for by the recipient in its financial records as a capital expenditure under Generally Accepted Accounting Principles ("GAAP"). Furthermore, disbursement of funds from Mass Tech Collaborative will be contingent upon the submission of a signed form with each invoice that certifies specific expenditures submitted for funding are considered capital expenditures according to grantee's accounting policies and practices.

It is expected funds will be expensed over 12-24 months and used towards expenses such as: Computer Aided Design expenses for the creation of digital twin assets, software and AI modelling expenses for validation of the digital twin in simulation, physical prototyping expenses to verify the physical feasibility of the digital twin, project management expenses in the creation of the digital twin, server and/or compute infrastructure needed for development of the digital twin, software expenses needed for digital twin creation.

All Respondents must provide a 25% match of the requested funding, which can be in cash or in-kind. See Section 5 for more details on match requirements, disbursement of funds, and use of proceeds.

3. Evaluation Process and Criteria

Applications will be reviewed against the specific criteria listed below to determine the extent to which they meet the objectives of the MA Digital Twins Initiative as outlined above. Applicants should meet the following criteria and describe the extent to which:

- The proposed robot design is novel and promises significant impact on the proposed sector,
- The applicant's team can develop a high-quality digital twin of their robotic platform and affirms that MassTech can publicize their design,
- The applicant shows a concrete plan with articulated milestones and partnerships for productizing their robotic platform, and
- The organization is capable of executing on the proposed work.

4. APPLICATION PROCESS

4.1 Application and Submission Instructions

Respondents are cautioned to read this NOFO carefully and to conform to its requirements. Failure to comply with the requirements of this NOFO may serve as grounds for rejection of an Application.

Required Submissions- All Applications must include the items listed below:

- a) Application Cover Sheet (Attachment A)
- b) Application, which shall include:
 - A description of the entity responding to the NOFO (including descriptions of proposed subcontractors, if any) and the entity's qualifications to perform the project.
 - A detailed project description highlighting the project's goals, activities, and anticipated impact on the robotics sector in Massachusetts, which addresses the evaluation criteria outlined in Section 3.
 - A high-level timeline and a set of concrete deliverables or key milestones to achieve the project's objectives.
 - A high-level description of the project's capital budget outlining key budgetary categories and associated timelines.
 - A demonstrated commitment of cash and/or in-kind contributions to the project that equals or exceeds twenty-five percent (25%) of the grant award to be provided by this program.
- c) Utilizing the Budget Template (<u>Attachment C</u>), provide the total not-to-exceed costs for the project based on projected hours, proposed hourly rates, and any other appropriate costs. List additional fees, overhead charges, or reimbursable expenses, if any. As a general policy, the Mass Tech Collaborative does not pay mark-ups on reimbursables or out-of-pocket expenses. The Mass Tech Collaborative also does not pay for word processing, overtime, or meals. For travel costs, the Mass Tech Collaborative pays the IRS rate per mile.

- d) Authorized Application Signature and Acceptance Form (Attachment B). By executing the Authorized Respondent's Signature and Acceptance Form and submitting a response to this NOFO, Respondents certify that they (1) are in compliance with the terms, conditions and specifications contained in this NOFO, (2) acknowledge and understand the procedures for handling materials submitted to the Mass Tech Collaborative as set forth in subsection 4.1.1 below, (3) agree to be bound by those procedures, and (4) agree that the Mass Tech Collaborative shall not be liable under any circumstances for the disclosure of any materials submitted to the Mass Tech Collaborative pursuant to this NOFO or upon the Respondent's selection.
- e) Applications **must** be delivered **electronically to** <u>proposals@masstech.org</u>, <u>wall@masstech.org</u> and <u>rameshwar@masstech.org</u> (please include the NOFO number in the subject heading)
- 4.1.1 Any and all responses, Applications, data, materials, information and documentation submitted to Mass Tech Collaborative in response to this NOFO shall become Mass Tech Collaborative's property and shall be subject to public disclosure. As a public entity, the Mass Tech Collaborative is subject to the Massachusetts Public Records Law (set forth at Massachusetts General Laws Chapter 66). There are very limited and narrow exceptions to disclosure under the Public Records Law. If a Respondent wishes to have the Mass Tech Collaborative treat certain information or documentation as confidential, the Respondent must submit a written request to the Mass Tech Collaborative's General Counsel's office no later than 5:00 p.m. five (5) business days prior to the required date of Application submission. The request must precisely identify the information and/or documentation that is the subject of the request and provide a detailed explanation supporting the application of the statutory exemption(s) from the public records cited by the Respondent. The General Counsel will issue a written determination within three (3) business days of receipt of the written request. If the General Counsel approves the request, the Respondent shall clearly label the relevant information and/or documentation as "CONFIDENTIAL" in the Application. Any statements in an Application reserving any confidentiality or privacy rights that is inconsistent with these requirements and procedures will be disregarded.

4.2 Application Timeframe

The application process will proceed according to the following schedule. The target dates are subject to change. Therefore, Respondents are encouraged to check Mass Tech Collaborative's website frequently for updates to the schedule.

Task	Date
Date Issued:	12/04/2025
Bidders' Conference:	12/11/2025 @ 10AM EST
Questions Due:	12/15/2025 @ 5 PM EST
Answers to Questions Posted:	12/19/2025 @ 5 PM EST
Responses Due:	01/09/2025 @ 3 PM EST

4.3 Questions

Questions regarding this NOFO must be submitted by electronic mail to proposals@masstech.org with the following Subject Line: "Questions – NOFO No. 2026-JAII-02"). Responses to all questions received will be posted within a week of receipt to Mass Tech Collaborative and COMMBUYS website(s).

5.0 DISBURSEMENT OF FUNDS

The Mass Tech Collaborative will disburse funds on a reimbursement basis in accordance with the budget, payment terms, schedules, and other terms and conditions established in the Capital Matching Grant Agreement. Among other conditions, payment will be subject to: (i) execution of an agreement between the grantee and each entity providing matching funds; (ii) receipt by the grantee of the applicable portion of the matching funding; (iii) submission of agreed upon deliverables, valid invoices, and supporting detail from the grantee evidencing the expenditures to be reimbursed, match funds recognized, and certifying to the capital nature of the expenditure; and (iv) Mass Tech Collaborative's access to sufficient bond funding from the Commonwealth.

Use of Proceeds

Expenditures to be funded by the Mass Tech Collaborative under this program must be ones that will be accounted for by the recipient in its financial records as a capital expenditure under Generally Accepted Accounting Principles ("GAAP"). Examples of such capital expenditures could include expenditures for the purchase of equipment and the development of new technology platforms or systems. Such capital expenditures may in certain projects also include salaries of staff directly engaged in managing capital projects to the extent such expenditures are capitalizable under GAAP. Salaries of individuals engaged in operations, as well as other non-personnel operating costs, are not capital expenditures.

Mandatory Cost Sharing/Match Requirements

A requirement for all awards will be additional, companion expenditures of awards by the Federal Government, universities, nonprofits, foundations, or corporations and/or cash and in-kind contributions that equal no less than twenty-five (25%) percent of the state investment through this NOFO. All contributions, including cash and in-kind contributions, will be accepted as part of the grant recipient's cost sharing requirement provided that such contributions meet all of the following criteria: (i) are necessary to accomplish the objectives of the collaborative project; (ii) are included in the approved budget for the collaborative project; (iii) are allocated separately for the Robotic Digital Twin Initiative award; (v) are verifiable from recipient's records; and (v) are not included as matching contributions for any other federal or state-supported project. To the extent the Respondent's application deviates from these expectations, the Respondent must clearly describe and justify the proposed alternative approach. The Mass Tech Collaborative will evaluate the composition of the project team's cost share within the context of the project team's demonstrated commitment to the project and financial capacity.

6.0 GENERAL CONDITIONS

- a. If an Application fails to meet any material terms, conditions, requirements or procedures, it may be deemed unresponsive and disqualified. The Mass Tech Collaborative reserves the right to waive omissions or irregularities that it determines to be not material.
- b. This NOFO, as may be amended from time to time by Mass Tech Collaborative, does not commit Mass Tech Collaborative to select any firm(s), award any contracts for services pursuant to this NOFO, or pay any costs incurred in responding to this NOFO. Mass Tech Collaborative reserves the right, in its sole discretion, to withdraw the NOFO, to engage in preliminary discussions with prospective Respondents, to accept or reject any or all Applications received, to request supplemental or clarifying information, to negotiate with any or all qualified Respondents, and to request modifications to Applications in accordance with negotiations.
- c. On matters related solely to this NOFO that arise prior to an award decision by the Mass Tech Collaborative, Respondents shall limit communications with the Mass Tech Collaborative to the Procurement Team Leader and such other individuals as the Mass Tech Collaborative may designate from time to time. No other Mass Tech Collaborative employee or representative is

- authorized to provide any information or respond to any questions or inquiries concerning this NOFO. Respondents may contact the Procurement Team Leader for this NOFO in the event this NOFO is incomplete.
- d. The Mass Tech Collaborative may provide reasonable accommodations, including the provision of materials in an alternative format, for Respondents with disabilities or other hardships. Respondents requiring accommodations shall submit requests in writing, with supporting documentation justifying the accommodations, to the Procurement Team Leader. The Mass Tech Collaborative reserves the right to grant or reject any request for accommodations.
- e. Respondent's Application shall be treated by the Mass Tech Collaborative as an accurate statement of Respondent's capabilities and experience. Should any statement asserted by Respondent prove to be inaccurate or inconsistent with the foregoing, such inaccuracy or inconsistency shall constitute sufficient cause for Mass Tech Collaborative in its sole discretion to reject the Application and/or terminate of any resulting Agreement.
- f. Costs that are not specifically identified in the Respondent's response and/or not specifically accepted by Mass Tech Collaborative as part of the Agreement will not be compensated under any contract awarded pursuant to this NOFO.
- g. Mass Tech Collaborative's prior approval is required for any subcontracted services under any Agreement entered into as a result of this NOFO. The selected Respondent will take all appropriate steps to assure that minority firms, women's business enterprises, and labor surplus area firms are used when possible. The selected Respondent is responsible for the satisfactory performance and adequate oversight of its subcontractors. Subcontractors are required to meet the same requirements and are held to the same reimbursable cost standards as the selected Respondent.
- h. Submitted responses must be valid in all respects for a minimum period of sixty (60) days after the deadline for submission.
- i. Mass Tech Collaborative reserves the right to amend the Agreement at any time prior to execution. Respondents should review the Agreement as they are required to specify any exceptions to the Agreement and to make any suggested counterproposal in their Application. A failure to specify exceptions and/or counterproposals will be deemed an acceptance of the Agreement's general terms and conditions, and no subsequent negotiation of such provisions shall be permitted.

6.2 Posting of Modifications/Addenda to NOFO

This NOFO has been distributed electronically using the Mass Tech Collaborative and COMMBUYS websites. If the Mass Tech Collaborative determines that it is necessary to revise any part of this NOFO, or if additional data is necessary to clarify any of its provisions, an addendum will be posted to the websites. It is the responsibility of each potential Respondent to check the Mass Tech Collaborative and COMMBUYS websites for any addenda or modifications to the NOFO, and the Question and Answer file, which may contain pertinent information. The Mass Tech Collaborative accepts no liability and will provide no accommodation to Respondents who submit a response based on an out-of-date NOFO.

Attachment A Application Cover Sheet

Name of Respondent				
Name of Respondent				
Mailing Address	City/Town		State	Zip Code
Telephone	Fax		Web Address	
Primary Contact for Clarification		Primary Contact E-mail Address		
Trimary contact for clarification		Tilliary C	Contact L man Address	
Authorized Signatory		Authorized Signatory E-mail Address		
Legal Status/Jurisdiction (e.g., a Massachusetts		Respondent's UEI No.		
Corporation, LLC, LLP, etc.)				

Attachment B <u>Massachusetts Technology Collaborative</u> Authorized Respondent's Signature and Acceptance Form

The undersigned is a duly authorized representative of the Respondent listed below. The Respondent has read and understands the Solicitation requirements. The Respondent acknowledges that all of the terms and conditions of the Solicitation are mandatory. By executing this Authorized Respondent's Signature and Acceptance Form, Respondent certifies that they (1) are in compliance with the terms, conditions and specifications contained in this Solicitation, (2) acknowledges and understands the procedures for handling materials submitted to the Mass Tech Collaborative as set forth above, (3) agrees to be bound by those procedures, and (4) agrees that the Mass Tech Collaborative shall not be liable under any circumstances for the disclosure of any materials submitted to the Mass Tech Collaborative pursuant to this Solicitation or upon the Respondent's selection.

The Respondent understands that, if selected by the Mass Tech Collaborative, the Respondent and Mass Tech Collaborative will execute an Agreement specifying the mutual requirements of participation. Respondent agrees that the entire bid response will remain valid for sixty (60) days from receipt by the Mass Tech Collaborative.

I certify that Respondent is in compliance with all corporate filing requirements and state tax laws.

I further certify that the statements made in this response to the Solicitation, including all attachments and exhibits, are true and correct to the best of my knowledge.

Respondent:	
·	(Printed Name of Respondent)
By:(Si	gnature of Authorized Representative)
Name:	
Title:	
Date:	

Attachment C Budget Template

SEE EXCEL SPREADSHEET