Sample form, not for offline completion.

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Robotically Manipulated Payload Challenge

Thank you for participating in the NASA TechLeap Prize.

We recommend reading all requirements for this submission before you begin and encourage you to review the rules, technical guidelines, and evaluation rubric that will be used to assess all valid submissions.

Your entire submission will be shared with the NASA TechLeap Prize team, evaluation panel judges, and the Selection Committee during the evaluation process. As you respond to this submission form, please include as much information as possible for the Evaluation Panel to score and evaluate your proposed payload. While the NASA TechLeap Prize team and evaluators will treat all submissions with discretion, you may choose to exclude any confidential and/or sensitive information.

Submissions must be completed in English. This provides consistency across all entries during our review process and reduces the risk of misinterpretation or translation error. It is fine to leave the video in another language if it is subtitled in English, and to leave organization names and other items in the original language if they have no direct translation to English.

The submission saves automatically, and the status of your submission is available to view on your dashboard.

Prior to submission, confirm that the information provided during registration is correct. Be sure to review your submission as it will appear after it has been completed (click the preview button next to "Complete submission"). When you have finished all requirements, you will be able to complete the submission form. Once you have completed your submission, you will no longer be able to make changes.

Registration must be completed by 5:00 p.m. ET on Wednesday, July 29, 2026. After this deadline, new registrations will not be accepted, and you will not be able to start a submission.

You must complete your submission no later than 5:00 p.m. ET on Wednesday, August 12, 2026.

If you have questions, please review the FAQs. You can also contact our team at hello@nasatechleap.org if you have additional questions or need technical support. If you require accommodations to fully engage in this submission process, contact us. The NASA TechLeap Prize is committed to creating an accessible environment for all participants.

Payload demonstration title

Payload demonstration description 50 words

Provide a short description of your payload and proposed demonstration.

Introduce the leadership, structure, and capabilities of those working on this payload demonstration. Should you be selected as a winner, you must designate a lead organization or individual responsible for taking accountability for the prize funds, as well as providing project direction, control, and supervision. Your lead was identified during registration. If this has changed, please update your user profile to change your legal name and any other registration information.

Capabilities 250 words

Describe relevant skills, capacities, and experiences that you or your team possess that support your ability to execute the proposed plans and deliver a flight-ready payload that meets the Technical Guidelines of this challenge. Be sure to include core competencies and how they apply to your payload demonstration, any relevant past projects or experience, and any other details that support your ability to develop a flight-ready payload.

Team size

◯ Less than 10

◯ 11-20

◯ 20+

Indicate the number of people who will serve on the team to develop the proposed payload demonstration.

Proof of citizenship, permanent residency, or primary place of business

☐ My organization can provide proof that the location of our primary place of business is in the United States.

☐ I can provide proof of citizenship or permanent residency.

To be eligible for an award, the lead individual or team of individuals must be U.S. citizens or permanent residents of the United States and be 18 years of age or older. Lead organizations must be entities incorporated in and maintaining a primary place of business in the United States.

- If you are selected as a potential winner and you are an organization, you will be asked to provide proof of the location of your primary place of business.
- If you are selected as a potential winner and you are an individual, you will be asked to provide proof of citizenship or permanent residency.

Confirm that you will be able to provide one of the options.

Proof of liability insurance

◯ Yes, I confirm I have at least $250,000 in liability insurance coverage or can demonstrate equivalent financial responsibility.

To participate in the NASA TechLeap Prize, you must demonstrate that you have at least $250,000 liability insurance coverage. You will be asked to provide proof of your insurance coverage or otherwise demonstrate financial responsibility for that amount at the time you are selected as a potential winner. See the insurance guidelines for additional details about this requirement.

Here is your opportunity to provide the details of your proposed solution for the Robotically Manipulated Payload Challenge. Be sure to emphasize how your payload development and demonstration plans align with the four criteria that will be used to assess each valid submission (see evaluation criteria).

Payload demonstration overview 350 words

This challenge focuses on the development of payloads that can be manipulated by a robotic arm in low Earth orbit to demonstrate new capabilities advancing in-space servicing, assembly, and manufacturing (ISAM). Specifically, NASA is seeking technologies that meet or exceed the specifications described in the technical guidelines.

Describe how you will demonstrate new ISAM capabilities. How specifically would your payload be manipulated by a robotic arm and what new capability would this demonstrate?

Payload demonstration benefits 350 words

Describe how your payload demonstration advances the current state of the art for ISAM. Explain how your payload demonstration advances NASA needs and will have a high impact on performance, reliability, or other metrics. Consider citing which of the 2026 Civil Space Shortfalls your payload demonstration seeks to address. Consider using quantitative figures of merit, with supporting data, to describe how the proposed payload demonstration will improve upon that state of the art. Focus on how your payload demonstration meets the technical guidelines that NASA has identified.

Visual representation

Upload one PDF file that includes photos, illustrations, schematics, charts, graphs, and any other visual representations of your payload demonstration. The PDF should not exceed 10MB and a total of five pages. It should not be used to include text that circumvents submission word counts. Some brief labels and/or basic text descriptions are permitted with a minimum 10-point font size.

NOTE: Gantt charts, schedules, budgets, and other similar content are not acceptable – please use responses in this submission form to provide this information. Pages beyond the five-page limit and unrelated content will render the submission ineligible.

Payload development status 300 words

Explain how this payload has been successfully tested in the laboratory or relevant flight environment (at least the component or breadboard level) to demonstrate current development status and that a payload could be ready for a flight test in eight months. Describe how the payload would benefit from an on-orbit demonstration with a robotic arm. Provide evidence to support your explanation.

NOTE: You may cite test results or other evidence by providing URLs. However, if you choose to provide URLs, they cannot be password protected. Please note that judges are not required to read this content. This information will primarily be used for due diligence on your payload.

Benefit of hosted orbital flight 150 words

Describe how an on-orbit flight demonstration of your payload with the FFR robotic arm could help advance ISAM capabilities. What would a flight test enable you to evaluate that is not possible through other means of testing (e.g., ground testing)? Why does your payload need a test flight now?

Payload development plan 250 words

Describe how you plan to build your payload for an on-orbit demonstration. Include how you intend to meet the payload requirements as outlined in the technical guidelines. Highlight any potential risks associated with your payload development plan, as well as how you plan to mitigate these risks.

Intellectual property 200 words

Explain who owns the intellectual property of your proposed payload. If you are building on existing or off-the-shelf technology, detail the permissions you have to use that technology. If you are part of a team, indicate which team members own the intellectual property. If applicable, include information on the process for others to utilize your technology after the challenge is completed.

Other considerations (optional) 150 words

This is your opportunity to describe any outstanding issues that you could not explain in any other sections. If your proposed payload and demonstration do not meet some of the requirements in the technical guidelines, describe why you have made the choices you did in your proposal. Your explanation may include how your proposed approach better meets the overall objectives of the challenge or how your payload demonstration exceeds what the technical guidelines specify.

Your submission must include a video that describes your payload demonstration and why it should be selected. The video is an opportunity to showcase your payload demonstration and to describe it in a succinct format. We want you to share your vision with the judges in a way that is different from the written solution format. You may include screenshots, walk-throughs, or other visuals of your solution if you wish. This DOES NOT need to be a professionally produced video – a video shot on a smartphone is acceptable. Additionally, please take care to protect any intellectual property associated with your payload. Only judges and challenge administrators will view this video.

In order to complete this part of your submission, your team will upload a short digital film using YouTube. Your video submissions should follow these guidelines, or else it will render the submission ineligible:

- 90 seconds in length maximum.
- Your pitch must be in English, or if in another language, subtitled in English.
- Your video must be captioned. See instructions here on how to caption YouTube videos.
- Your video should not contain any images of identifiable children (under age 18) without express parental consent.
- Your video should not include any copyrighted material (including, but not limited to, music) for which you do not have a license.
- Set the privacy settings on your video to “public” or “unlisted” – do not set them to “private.” When set as “unlisted,” only those with the YouTube URL will be able to access and view the video, including the NASA TechLeap team, evaluation panel, and selection committee.
- Check to make sure embedding is turned on.

Here are general suggestions for delivering a high-quality video pitch:

- Introduce yourself and your organization(s) and/or team.
- Describe your payload demonstration, including what is unique about it.
- Explain how you will know that you’ve achieved success.
- Do not simply read a slide deck; instead, try to connect with your audience: the judges.

YouTube video URL

If your team is named as a winner, you will have eight months to finalize the design and build a flight-ready payload. Use this section to describe your plan for successfully developing your payload in that timeframe.

Project plan 200 words

In bulleted chronological order, describe your project plan and the timeline needed to prepare your flight-ready payload in eight months. Include a plan to mitigate any risks.

Total cost

Enter the total cost to build and prepare your flight-ready payload.

NOTE: Although the total possible prize amount is up to $500,000, this amount may be more than, less than, or equal to that value.

Budget

Provide specific line items for your proposed budget. You may include any cost categories, including contingencies for risk mitigation, that support the development of your payload. You are welcome to organize this by phases.

NOTE: Although the total possible award amount is up to $500,000, the total amount may be more than, less than, or equal to that value.

Budget narrative 200 words

If needed, you may further describe your budget here. If your total cost to develop your payload demonstration and payload exceeds $500,000, explain how you plan to fund the remaining costs. If your total cost does not exceed $500,000 and/or you have no further information to share about your budget, you may enter "Not applicable."

☐ I have not received government funding for the aspects of the proposed payload I aim to develop as part of this challenge.

If you or your employer is receiving government funding for similar projects in which you are developing a flight-ready payload, you or your employer are not eligible for an award under this challenge.

Confirm that you have not received government funding for the aspects of the proposed payload you aim to develop as part of this challenge.

If you are identified as a potential winner, you will be asked to provide the following prior to any award:

- If you are an individual: Proof of citizenship or permanent residency.
- If you are an organization: Proof that your location of business is in the United States.
- Proof of $250,000 liability insurance or otherwise demonstrate financial responsibility for that amount. (See the insurance guidelines for additional details about this requirement.)
- Details of any other funding for which this payload demonstration or a closely related payload demonstration is being considered.
- Additional details about any existing or prior professional relationships with Motiv Space Systems.

Once your eligibility has been verified and you have been named a winner, please note the following:

- You will be invited to develop your flight-ready payload according to this submission within eight months.
- You will receive an initial award of $200,000.
- During Phase 2, winners will have the opportunity to compete for an additional award of $200,000 each. Field judges will conduct site visits in Fall 2026 to evaluate the progress each winner has made.
- During Phase 3, winners will have the opportunity to compete for an additional award of $100,000 each. Field judges will conduct site visits in Spring 2027 to evaluate the progress each winner has made.
- NASA intends to offer an opportunity for a flight test aboard a hosted orbital spacecraft at no additional cost to winner(s) of Phase 3.
- A timeline with specific dates for each element of the remaining phases will be provided to each winner prior to the start of Phase 2.

☐ I have read and understand the official rules, terms, and conditions, and fully agree to them.

- [ ] I am an individual, represent a team of individuals, or represent a legal entity that meets all eligibility criteria as stated in the official rules, terms and conditions.

- [ ] I did not receive assistance from challenge sponsors, judges, or any other individuals associated with the challenge in preparing this submission.