



Asian Try Zero-G 2022 Proposal Guideline

Call for Proposal!!

2022.03.11

1. Introduction

Asian Try Zero-G 2022 will be conducted by the responsible organizations of the member countries/regions of the Asian Beneficial Collaboration through Kibo (Kibo-ABC) Initiative that wish to participate. Participating organizations will each issue a public call for experiment proposals, and each country/region will select candidate themes. After the final selection is made by all participating organizations, the selected experiments will be conducted by JAXA astronauts in Kibo.

2. Details of Request

We expect unique and novel ideas that have not been implemented on the ISS/Kibo before. Therefore, ideas that have been previously adopted will not be accepted. For past experiment ideas, please refer to "Past experiments" and "Reference Videos" at the URL below.

<https://humans-in-space.jaxa.jp/en/biz-lab/kuoa/tryzerog/>

<https://iss.jaxa.jp/en/kuoa/tryzerog/reference.html>

Below are the details of the request.

- A) Experiments will be conducted in Kibo.
- B) The experiment needs to be verified visually.
- C) Experiments need to be done with no tools other than items scheduled to be available onboard the ISS.

Available Items:

- Office supplies (paper, pen, scissors, ruler, binder clip, Ziploc bag, etc.)
- Tools (driver, wrench, tweezers, inspection mirror, etc.)
- Designated items (See Attachment-1, Available onboard items)

* Some items may not be available depending on work schedule/situation.

- D) The time required to complete the experiment should be less than 10 minutes and the instructions should be easy and clear to understand and follow.
- E) The experiment shall be achievable by one crew member, however, there is a possibility to assign two crew members, although it would be quite difficult.
- F) The activity will be recorded with a high-definition video camera. The high-definition image data will be downlinked to the ground and distributed to the proposers through each space agency afterwards.
- G) Please do not submit proposals that financially profit a specific organization or agency.
- H) Group applications are acceptable. Adults/teachers can be involved as a supervisor or guardian of the group, but not as an applicant.
- I) Depending on the mission schedule and operational situation of the ISS, astronauts may be replaced.
- J) Describing mathematical and theoretical hypotheses in your idea in the Experiment Proposal Form (Attachment-2) is highly recommended.
This is a requirement if you apply as a Category 2 applicant as described in the next section.

3. Categories

The program is divided into two categories: Category 1 for students under the age of 18, and Category 2 for students, young scientists, and young engineers up to the age of 27.

< Category 1; under 18 years old >

- Articles 2 A) through J) must be satisfied.

< Category 2; ages up to 27 years old >

- Articles 2 A) through J) must be satisfied. In addition, a paper about the result of your experiment is recommended to be written.

4. Eligibility

- Residents or nationals of Kibo-ABC member countries/regions*1 who are participating in Asian Try Zero-G 2022 *2
- Individuals or groups up to 27 years old.

For participants from other regions, at least one person must meet the above eligibilities as a group applicant.

Note: Exceptions may be made if approved by the Point Of Contact (POC) of the Asian Try Zero-G 2022 participating country/region.

If you believe an exception applies, please contact the POC for the country/region concerned.

*1 Kibo-ABC member countries and regions (alphabetical order): Australia, Bangladesh, Indonesia, Japan, Malaysia, Nepal, New Zealand, Republic of the Philippines, Republic of Korea, Singapore, Taiwan, Thailand, United Arab Emirates, Vietnam

Kibo-ABC URL: <https://humans-in-space.jaxa.jp/en/biz-lab/kuoa/>

*2 Asian Try Zero-G 2022 participating countries and regions (as of March 2022): Australia, Bangladesh, Japan, Singapore, Thailand. Other participating countries/regions are under coordination. Please check the official website for the latest participating countries/regions.

Asian Try Zero-G URL: <https://humans-in-space.jaxa.jp/en/biz-lab/kuoa/tryzerog/>

5. Schedule (Tentative)

May 2022 Initial selection in each country and region

June - July 2022 Final selection

December 2022 to January 2023 On-orbit experiment (The date will be fixed in accordance with ISS planning)

March 2023 Experiment report meeting/Award ceremony

This schedule may be subject to change without prior notice

6. Points of Consideration

Some experiments may be considered dangerous on the ISS/Kibo or difficult to realize due to astronaut activity restrictions. When proposing an idea, please review and consider the following points to ensure that they do not apply.

A) The following points are considered as unsafe in the ISS/Kibo:

- Usage of dangerous material/objects
- Sprinkling a large amount of water (1 liter or more) into Kibo cabin
- Releasing a certain amount of gas, especially ones the ISS doesn't have capability to dispose of
- Scattering tiny articles such as powder, bolts and nuts, and pieces of paper
- Usage of high-speed spinning objects with large mass
- Items with sharp edges

B) Following points are considered as impractical in the ISS/Kibo:

- Long duration of crew time
- Sacrificing crew's rights, privacy
- Required to terminate air flow in cabin for a long time
- Blocks crew's emergency evacuation path, e.g. closing hatches

7. Launch Items

The experiment proposer shall use the items described in Chapter 2.C. However, you may propose a launch item under the following conditions

- Dimensions: within 35 x 30 x 8 cm centimeters, when folded
- Weight: less than 950 g
- Specifications: no sharp edges, without any motive power (batteries are not acceptable), no living thing, no chemicals, fire resistant material
- Even if satisfies above, smaller and lighter items are preferable

The proposed items may not be used for the experiments for various reasons. Please note launched items will not be returned.

8. How to Make Experiment Proposals

With referring to sample proposal (Attachment-3), the experiment proposal must describe the following on the prescribed Experiment Proposal Form (Attachment-2):

- (1) Applicant information
- (2) Experiment Information

2-1) Activity title

2-2) Hypothesis and theory

a) Hypothesis

b) Schematic model

c) Mathematical and Theoretical Hypothesis (**Optional for Category 1 and Required for Category 2 applicants**)

(3) Verification method and procedures

3-1) Verification methods

3-2) Step by step procedures and their expected time with each procedure

(4) Tools and items (include required launch items)

4-1) Tools and items required

(5) A Picture of proposer(s) (if you wish to be photographed with an astronaut in Kibo, your picture will be launched. Please note if there are too many interested applicants, a random selection will be made. The image/picture will be open to the public and broadcast.)

9. How to Submit Experiment Proposal

- Develop proposals and send it via email
- Refer to the website of your country and region, or JAXA's website (<https://humans-in-space.jaxa.jp/en/biz-lab/kuoa/tryzerog/>)
- Deadline: 8th May, 2022 for Japanese participants

Please ask the deadline to the agency in your country and region.

10. Selection Result Announcement

Announcement of the selected proposals will be posted on JAXA's website with the contents and the name of the proposer (representative's name) (<https://humans-in-space.jaxa.jp/en/biz-lab/kuoa/tryzerog/>)

Announcement date: around June to July 2022 (Subject to change without prior notice.)

※ Special awards will be given.

11. Terms and Conditions

Applicants must agree to all of the terms below. If you live in the EU, please agree to the contents of the annex.

(1) Management of Submitted Proposal

- a) JAXA has the right to modify the idea, conduct the activity in space, and apply the result to the public and for educational purposes.
- b) Images and pictures in the submitted proposal will be open to the public via JAXA's website. The images/pictures may be utilized for public/educational purposes.
- c) JAXA may use the submitted proposal for public/educational purposes even if the idea is not conducted in space.
- d) If any of the requirements are not met, the acceptance can be withdrawn, even after the idea is accepted as a proposed experiment.

(2) Privacy Policy

The personal information collected through this application will only be used to inform the applicant of the selection result, publication, and events related to this project.

The videos and photos taken at this program will be made publicly available.

(3) Responsibility of Applicant and Exemption Clause of JAXA

JAXA will not be liable for any problems that may occur during program participation. Applicants need to take full responsibility for solving issues of this nature that may arise.

Applicants must guarantee that the submitted proposal does not violate any legal rights, such as intellectual property rights. If a legal problem related to the submitted proposal arises, the applicant will take full responsibility and must resolve the problem.

12. Contact

JAXA Kibo-ABC Secretariat

E-mail : Z-ATZG@ml.jaxa.jp

For the purposes of notification of event information and results of your recruitment, JAXA needs to collect your personal data requested in the present form.

You may at any time object to the use of your data for this purpose by writing to the following address:

Z-ATZG@ml.jaxa.jp

You will find below all the detailed information concerning this processing of your personal data and a reminder of your rights, in application of the legislation in force.

JAXA, willing to respect the privacy and protection of personal data of its prospects and clients, complies with the legislation in force regarding the protection of personal data as data controller, and in particular Law no. 78-17 of 6 January 1978 (the "Data Protection Act") and, from 25 May 2018, Regulation (EU) 2016/679 of the European Parliament and of the Council of 27 April 2016 on the protection of individuals with regard to the processing of personal data and the free movement of such data (the "GDPR").

JAXA does not transfer personal data to third countries or parties outside the European Economic Area.

You have, under the conditions defined by the Data Protection Act and the GDPR, unless otherwise provided:

- (i) The right to withdraw at any time your consent to the processing implemented by JAXA based on such consent ;
- (ii) The right to obtain from JAXA the confirmation that your personal data are or are not processed and, when they are, access to said personal data as well as to several information on the processing (processing purposes, categories of personal data concerned, recipients or categories of recipients to whom your personal data have been or will be communicated, the retention period of the personal data envisaged or, where this is not possible, the criteria used to determine this duration, etc.)
- (iii) A right of access, rectification and/or erasure of your personal data;
- (iv) The right to receive your personal data provided to JAXA, in a structured, commonly used and legible format, and the right to transfer this data to another data controller without JAXA having to obstruct it;
- (v) A right of opposition, for legitimate reasons, to the processing of your personal data and the right of opposition to the use of such personal data;
- (vi) The right to request from JAXA the portability of your personal data in the event you wish to obtain the transfer of your personal data to the benefit of another data controller.

You can set, change and revoke at any time guidelines for the retention, erasure and communication of your personal data after your death. You have the right to appoint a third party to whom your data may be communicated after your death. You agree to inform this third party of your approach.

You may exercise the rights described above by writing to JAXA at the following email address:

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