Call for Proposals Asian Try Zero-G
December 25, 2015

Kibo-ABC initiative invites your idea of experiment to be conducted in the International Space Station (ISS)/KIBO, as “Asian Try Zero-G” program. JAXA Astronaut Takuya Ohnishi will be assigned for this mission in Japanese experiment module “KIBO” during his stay.

1. Important Notice

We expect unique, novel and/or informative ideas that have never been done in ISS/KIBO.

< Category 1; under 18 years old>

a) Please be aware that ideas realized in the past experiments will be excluded. See the following movies.
(http://jda.jaxa.jp/search.php?lang=e&keyword=Try+zero)
b) Experiment will be conducted in Kibo.
c) Experiment needs to be done with no tools or with items scheduled to be available onboard ISS.
d) Available items are:
- Office supplies (paper, pen, scissors, ruler, binder clip, zip-lock bag, etc.)
- Tools (driver, wrench, tweezers, inspection mirror, etc.)
- Designated Items (See attachment-1)
  * Some items may not be available depending on work schedule/situation.

e) The time required to complete the experiment should be less than 10 minutes and the instructions should be easy enough for children to understand and follow.
f) The activity will be recorded with a high-definition video camera. The high-definition image data will be downlinked to the ground and sent to each space agency afterwards.
g) Please do not submit proposals that financially profit a specific organization or agency.
h) One idea from one person.
i) Group application is acceptable if average age is under 18 years old. Adult/teacher can be involved as a representative or guardian of the group,
j) Depending on the mission schedule and operational situation of ISS, another astronaut may take his place.

< Category 2; Young scientists and Engineers, ages up to 27 years old>

a) In addition to above, describe mathematical and theoretical assumption regarding your idea in the Application Form.
b) Writing a paper about the observation after the experiment is highly recommended.
c) Group application is not acceptable. One idea from one person.

POINTS of CONSIDERATION

- Following points are considered as unsafe in ISS/KIBO
  - Usage of dangerous material/objects
  - Sprinkling a large amount of water into KIBO cabin
  - Releasing a certain amount of gaseous, especially the one ISS doesn‘t have capability of elimination. i.g. N2
  - Scattering tiny articles such as bolts and nuts, pieces of paper
  - Usage of high speed spinning objects with large mass
  - Items which have sharp edges.

- Following points are considered as impractical in ISS/KIBO
  - Two crew tasks
  - Long duration of crew time
  - Sacrificing crew’s rights, privacies
  - Requires to terminate air flow in cabin
  - Blocks crew’s emergency evacuation path. i.g. closing hatches

2. Application Format

Applicant shall describe following items in the Application Format (See attachment-2)

(1) Applicant Information
(2) Activity Title
(3) Hypothesis and Theory
  a) Hypothesis
  b) Schematic Model
  c) Mathematical Assumption **(For Category 2 only)**
(4) Verification method and Requirement
(5) Tool, Item

3. Application Method

Please ask your side of agency.

4. Deadline

February 29, 2016 (JST 17:00)

PLEASE submit to your country’s POC. If you plan to submit the application by e-mail, the application must be postmarked by the deadline.

5. Schedule

February 29, 2016: Deadline of application submittal.
March 18, 2016: Selection announcement.
*** The schedule is subject to change.**

6. Announcement of Selection Result and Activity Result in Space

The selection result and the winner of the candidate ideas will be announced by circulation mail. The announcement will include the contents of the proposal, the outcome/reason, as well as the applicant's name, address (prefecture and country), and occupation.

Moreover, the result of activity will be announced on JAXA HP
(http://iss.jaxa.jp/en/kuoa/).

7. Conditions

Applicants must agree with all of the items below:

(1) Management of Submitted Proposal

a) JAXA has the right to modify the idea, conduct the activity in space, and apply the result to public and 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 violated, even after the idea is accepted as a proposed experiment, the acceptance can be withdrawn.

(2) Responsibility of Applicant and Exemption Clause of JAXA

Applicant 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 solve the problem.

(3) Privacy Policy

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

8. Contact point

Kibo-ABC secretariat
E-mail : kibo-abc@aprsaf.org

END

Asian Try Zero-G 2016

Attachment-1 Available items

Blocks

Material
Aluminum, Steel, Polymer, Wood

Size
L 30 x W 30 x D 30 [mm]

Mass
Aluminum: 72 [g]
Steel: 210 [g]
Polymer: 39 [g]
Wood: 15 [g]

Balls

Material
Aluminum, Polyethylene, Vinyl, Rubber, Wood, Steel

Size
dia. 37 [mm]

Mass
Aluminum: 72 [g]
Polyethylene: 26 [g]
Vinyl: 37 [g]
Rubber: 27 [g]
Wood: 15 [g]
Steel: 207 [g]

Compass

Material
Aluminum

Size
L 77 x W 57 x D 25 [mm]

Mass
65 [g]

Yo yo

Material
Plastic

Size
dia. 57 x L 38 [mm]

Mass
47 [g]

Slinky

Material
Steel

Size
dia. 70 x L 58 [mm]

Mass
220 [g]

Springs and Weights

Material
Steel

Size
Large Spring: dia. 14 x L 100 [mm]
Medium Spring: dia. 9 x L 85 [mm]
Small Spring: dia. 6 x L 57 [mm]
Weight: dia. 20 x L 10 [mm]

Mass
Large Spring:10 [g]

Medium Spring: 8 [g]

Small Spring: 6 [g]
Weight: 25g

Spring Balance

Material
Case: Acrylic resin, Spring: Steel

Size
L 30 x W 255 x D 20 [mm]

Mass
58 [g]

Ink Brush

Material
Polyester

Size
L 234 x W 5 x D 5 [mm]

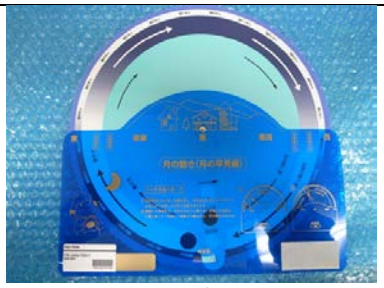
Mass
5 [g]

Origami Paper

Material
Paper

Size
L 150 x W 150 x D 0.1 [mm]

Mass
1 [g]



Star Chart

Material
Plastic

Size
L 275 x W 280 x D 1 [mm]

Mass
70 [g]

Tape measure

Material
Case: Plastic, Tape: Vinyl

Size
L 52 x W 52 x D 17 [mm]
(Tape length: 1.5 [m])

Mass
27 [g]

Spinning Top

Material
Wood

Size
dia. 20 x L 35 [mm]

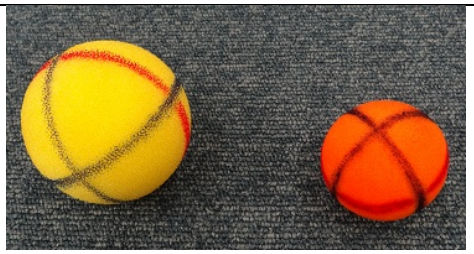
Mass
5 [g]

Gyroscope

Material
Steel

Size
dia. 64 x L 89 [mm]

Mass
80 [g]



Sponge Ball

Material
Polyurethane

Size
Yellow: dia. 68mm
Orange: dia. 45mm

Mass
Yellow: dia. 68mm, 6.3g
Orange: dia. 45mm, 1.2g

Plastic Syringe

Material
Plastic

Size
dia. 30mm x L 148mm
30ml

Mass
9 [g]

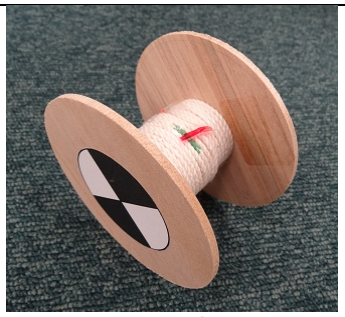
Weights attached bar's both ends

Material
Bar: Steel,
Ball: Plastic , Aluminum, Brass

Size
dia. 30 x L 275 [mm]

Mass
Plastic - Plastic: 52 [g]
Plastic - Aluminum: 73 [g]
Plastic - Brass: 151 [g]

*Individual Mass
Bar: 14 [g]
Plastic Ball: 19 [g]
Aluminum Ball: 40 [g]
Brass Ball: 118 [g]



Spool

Material
Wood, Aluminum(not shown)

Size
dia. 90 x L 56 [mm]

Mass
Wood: 45 [g]
Aluminum: 129 [g]

Parachute with Weight

Material
Parachute: Nylon
Weight: Wood and Brass

Size
dia. 430 x L 530 [mm]

Mass
Parachute: 12 [g]
Wood Weight: 9 [g]
Brass Weight: 119 [g]

Flapping Bird

Material
Plastic

Size
L 260 x W 160 x D 3 [mm]

Mass
11 [g]