

The Cooperation Programme between UNOOSA and JAXA on CubeSat deployment from the International Space Station (ISS) Japanese Experiment Module (Kibo) "KiboCUBE"



What is KiboCUBE?

Kibo

- A cooperation programme between United Nations Office for Outer Space Affairs (UNOOSA) and Japan Aerospace Exploration Agency (JAXA) which started from 2015, implemented under the Access to Space for All Initiative.
- Aims to provide educational or research institutions from developing countries with opportunities to deploy cube satellites (CubeSats) which they develop and manufacture from the International Space Station (ISS) Japanese Experiment Module (Kibo)



Why KiboCUBE?

- CubeSats offer a large variety of applications and developing a CubeSat can be the first step for a country in acquisitions of the skills and know-how needed to develop a space programme
 CubeSats are affordable to develop and launch and represents an achievable entry point to space activities; in KiboCUBE JAXA will bear the cost of the launch of the CubeSat to the ISS and deployment from Kibo
- Lower vibration and more friendly environment during launch
- Administrative support from UNOOSA and technical support from JAXA during the development

Photo credit: JAXA



KiboCUBE for Sustainable Development Goals (SDGs)

KiboCUBE may contribute to the SDGs below by fostering innovation and supporting education and training on skillsets for developing cutting-edge technology.
SDG4 "Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all";
SDG 8 "Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all"
SDG 9 "Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation"















Previous Winners

	Winner	Objective	Deployed	Launched	Selected
1 st round	KENYA: University of Nairobi "1KUNS-PF"	To monitor agriculture and coastal areas	11.05.2018	04.2018	08.2016
2 nd round	GUATEMALA: Universidad de Valle De Guatemala "Quetzal-1"	To acquire remote sensing data for natural resource management	29.4.2020	03.2020	09.2017
3 rd round	MAURITIUS: Mauritius Research Council "MIR-SAT 1"	To collect thermal infrared images and to test onboard communication	Currently under development		06.2018
3 rd round	INDONESIA: Surya University "SS-1"	To demonstrate remote communication	Currently under development		09.2018
4 th round	MOLDOVA: Technical University of Moldova "TUMnanoSAT"	To demonstrate technology and test various components	Currently under development		06.2019
5 th round	SISTEMA DE LA INTEGRACIÓN CENTROAMERICANA "MORAZAN-SAT"	To monitor weather variables in remote areas providing early warning during extreme weather events	Currently under development		2020





Requirements for Participation

Opportunity: A slot to deploy a 1U-cubesat from Kibo

Criteria: Open to entities located in developing countries that are Member States of the United Nations.

- Heads of research institutes, universities, and other public organizations. Private companies, nongovernmental or non-profitable agencies are ineligible.
- Entities located in countries that have the means to transport artificial satellites into space and place them in orbit are not eligible, taking into account the objectives of this Opportunity.

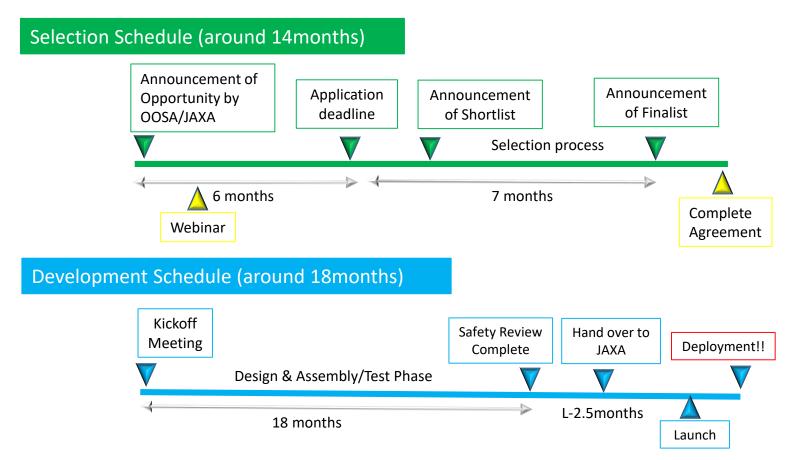
Eligibilities: Applying entities are responsible for the development of their CubeSat including the design, manufacturing, test and verification of their CubeSat, as well as its operation and utilization after the deployment.

- CubeSat design, manufacture, testing and operation
- Ability to transport the CubeSat to JAXA (planning, budget, export/import control etc.)
- Preparation of safety review (submission of safety assessment reports etc.)
- International Coordination of the CubeSat's radio frequency
- Ability to obtain a license of radio stations for CubeSat in the country
- Development of the ground station facility with radio frequency license





KiboCUBE Milestone







How to apply for KiboCUBE

- Next rounds from December 2020. <u>https://www.unoosa.org/</u>
- Webinars
- 1) Series of Webinars on Access to Space for All DATE: December 2020 (TBD)
- 2) Series of Webinars for the 6th Round of KiboCUBE DATE: 1Q 2021 (TBD)
- To promote a deeper understanding of the usefulness and accessibleness of small satellites by introducing the social contribution of satellite missions and the development of small satellites
- ✓ To raise awareness for KiboCUBE
- $\checkmark~$ To increase applications for the 6^{th} round
- \checkmark To provide potential applicants with the information and tools to
 - Build a more effective application
 - Develop an effective satellite design
 - Plan their space project and reach milestones



THANK YOU!

For any inquiries: UNOOSA Access to Space <unoosa-access-tospace@un.org>

