



International Tournament “ORBITA”

Regulations

2025

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1. General Provisions

The International Tournament “ORBITA” (hereinafter referred to as the Tournament) is intended to involve teams of school, college, and university students in space engineering and advanced research in the field of global cosmonautics. The Tournament is aimed at cosmonautics and engineering popularization among the younger generation, supporting children’s and youth projects, students’ gaining advanced practical experience in the field of aerospace engineering and sharing experiences with foreign colleagues.

The Tournament consists of three main segments:

1. Cosmonautics Project Contest;
2. Satellite Building Competition;
3. International Space Education Forum.

Satellite Building Competition (hereinafter referred to as the Competition) involves development by school and university student teams of science and/or technology experiment missions on the base of small spacecraft followed by their stratospheric launches, conducting experiments in microgravity, acquired data processing, and project defense.

Cosmonautics Project Contest (hereinafter referred to as the Contest) involves development by school students of prospective cosmonautics projects, preparation of prototypes and mock-ups for an exhibition followed by presentation of the project and its results at the Tournament Finals.

International Space Education Forum gathers the aerospace industry representatives from the CIS and EAEU countries, as well as other international partners. The Forum program involves speeches of space industry and space education experts, exhibition launches of spacecraft mock-ups carried out by private

companies and student design bureaus, visits to Roscosmos State Corporation facilities, museums and planetariums.

2. Tournament Goals

1. Development and enhancement of cooperation with the Eurasian Economic Union countries, the Commonwealth of Independent States countries, and other foreign partners within the framework of engineering and technology education;
2. Involvement of schools, universities and technology companies from the CIS and EAEU countries and other foreign partners in active cooperation in order to improve the level of students' engineering education;
3. Demonstration of successful solutions in the field of space engineering education around the world;
4. Increasing interest among the youth of the Russian Federation, CIS, and other countries in conducting research and engineering in the field of astronautics and Earth exploration.

3. Tournament Tasks

1. Gathering students and mentors from the CIS and EAEU countries and other foreign partners having interest in engineering and space education on the territory of the Russian Federation;
2. Organizing an educational program for the students from the Russian Federation, CIS and EAEU countries, and other foreign partners to study the basics of spacecraft engineering, as well as to get acquainted with scientific space programs;

3. Making the participants familiar with the main directions of fundamental space research and ways of their implementation in space missions based on the small spacecraft;
4. Organizing stratospheric launches of small CubeSat spacecraft developed by students to test scientific, technological, and engineering solutions at an altitude of up to 24 km in conditions close to real space;
5. Contributing to the integration of pre-university education and prospective areas of the space industry.

4. Organizers and Partners

4.1. The Tournament Organizers:

- Engineering and Education Company “Education of the Future”;
- Autonomous Non-Profit Organization “Space Engineering and Science Education Center”;
- Quantorium Children's Technopark, Orbita Center, Korolyov, Moscow Region;
- State Budgetary Institution of Culture of the City of Moscow “Memorial Museum of Cosmonautics”;
- National Committees (hereinafter referred to as the Committees) comprising the representatives of the participating countries.

The National Committees are state-level organizations related to aerospace industry and satellite construction, such as projects, schools, supplementary education centers, youth centers, industrial parks, colleges, and universities. Each country's National Committee includes up to two representatives of organizations.

The representatives of the Tournament National Committees 2024-2025:

1. National Committee of **Russia**: Ilya V. Ovchinnikov, Director of Development of “Education of the Future” Company; Alisa D. Zaripova, Deputy Director of Development of “Education of the Future” Company.
2. National Committee of **Uzbekistan**: Nora Sh. Rakhimova, StartupFactory.uz Coordinator.
3. National Committee of **India**: Bollu Viswanathan Baskaran, Director of Medovaya Consultants Private Limited, coordinator of space engineering competitions in India.
4. National Committee of **United Arab Emirates**: Mr. D.Bharanaidharan, Business Development Consultant - UAE, Medovaya Consultants Private Limited, Madurai, Tamil Nadu, India.

4.2. Tournament Partners:

- State Corporation for Space Activities “Roscosmos”;
- Country-wide Community of Technology Enthusiasts “The Kruzhok Movement” (Moscow, Russia);
- Medovaya Consultants Private Limited, Madurai, Tamil Nadu, India;
- Model Rocketry Society of India;
- UniSat Uzbekistan;
- SRM Public School (India);
- Lab of Future (UAE);
- Global Aero-Sports – STEM education in India;

4.3. Other Tournament partners are approved by the Organizers in due course and can be clarified and supplemented at any time before the Tournament Finals.

5. Expert Council

5.1. The Competition and Contest experts, who together form the Expert Council, are authorized to approve the assignments, check the solutions received from participants, form project teams, and judge at all stages (online and offline) of the Competition and Contest.

5.2. The Expert Council is authorized to approve the project topics and verify their compliance with the criteria described in **Application 1**.

5.3. The Expert Council has a right to involve additional experts among the Organizers', National Committees', and Tournament Partners' employees, as well as the specialists from aerospace industry and educational institutions.

5.4. Decisions that fall within the Expert Council's jurisdiction may be taken individually by any Council Member and may be submitted for a joint decision of the Council. A joint decision of the Council approved by the majority of experts in the presence of at least five Members of the main Council complement is not subject to appeal.

6. Registration

6.1. In order to take part in the Tournament, the participants shall register on the website: <https://spaceeducation.info/en/orbita/> or "Orbita" online service: <https://orbita.education/en/IN/events/70/285> by **selecting** the desired segment (**Satellite Building Competition** or **Cosmonautics Project Contest**).

6.2. In order to apply for the Cosmonautics Project Contest, register **from March 1, 2025 to July 31, 2025**.

6.3. In order to apply for the Satellite Building Competition, register **from March 1, 2025 to June 30, 2025**.

6.4. The registration period may be extended by the Organizers. The participants will be notified of the extension through the National Committees, as well as on the

Telegram Channel: <https://t.me/orbitacontest> and website: <https://spaceeducation.info/en/orbita/>.

6.5. Upon registration as a participant, it is necessary to provide consent for your personal data to be processed. For the participants under the age of 18, a written consent of their parents (or appropriate adults) is required.

6.6. The Tournament Organizers reserve the right to use materials provided by the Tournament participants (photo, audio, video recordings, creative works, educational materials) to publish on the Organizer's social media, the Tournament official website: <https://spaceeducation.info/en/orbita/>, "Orbita.education" online service: <https://orbita.education/en/events>, and mass media including the Internet.

6.7. By registration for the Tournament, the participants and team managers agree to the personal data processing terms, receiving newsletters, and publishing the theses and information about the authors in print and electronic forms.

6.8. Upon registration, the participants are required to provide the Organizer and/or the National Committee representative with true information about themselves, allowing them to determine whether the participant's data meets the Tournament requirements. If necessary, the participant is obliged, at the first request of the Organizers, to provide the relevant documents confirming the information about the participant indicated by them during registration.

6.9. In order to monitor the registration process and operational interaction with the Tournament teams, the list of registered participants from the participating countries is reported by the Organizers to the representatives of the National Organizing Committees twice a month: on the 1st and 15th day of every month.

7. Cosmonautics Project Contest

7.1. Schoolchildren and students of colleges and universities aged from 12 to 18 years old at the time of the beginning of the contest (hereinafter - the Contest) take part in the Cosmonautics Project Contest. It is also allowed for university students under 21 years of age at the moment of the beginning of the Contest to participate in the team in the number of no more than two students per team. The number of participants from one educational organization is not limited.

7.2. The projects to take part in the Competition are selected by representatives of the National Committees in accordance with the criteria described in **Application 1**. No more than 10 projects from each country are allowed for the finals. The number of participants in a team - no more than 6 people. If university students participate in the team, 4 schoolchildren are allowed, no more than 2 students per team and 2 mentors/teachers supervising the project.

7.3. The participants shall present the results of each project, mock-ups, and prototypes at the Tournament Finals. At the Finals, each project receives feedback and support from the international space industry experts, as well as is evaluated by the Expert Council.

7.4. The cosmonautics projects are accepted for the Contest in the following Sections:

- Section #1. Automatic Spacecrafts.
- Section #2. Human Spaceflight.
- Section #3. Space Robotics.
- Section #4. Earth's Remote Sensing.
- Section #5. Space Rocket and Propulsion Engineering. Launch Complexes.
- Section #6. Scientific Research and Interplanetary Missions.

7.5. The Contest participant shall provide the following for the project defense:

- Filled **Project Summary** form:

(<https://docs.google.com/spreadsheets/d/1YnoiKzj-LzAtVf2lulha79d51Bx7iXML/edit?gid=625031651#gid=625031651>)

- Digital presentation that supplements the speaker's report and illustrates the project content and results;

- Viewing materials: models, mock-ups, diagrams, pictures, and videos.

7.6. Duration of the contestant's speech is no more than 10 minutes (per project): 5 to 7 minutes are given for the report and 3 minutes are given to answer questions from the expert members and audience.

7.7. Requirements on the presentation:

- The first slide shall contain the full name of the educational institution, the project name, brief information about the author (full name, grade, mentor), city, year;

- The presentation can be made using any office software suite. Copy in PDF format is required. The presentation shall contain no more than 14 slides.

7.8. The Contest winners are determined by the Expert Group based on the total points received when the project is evaluated in accordance with the Regulations.

7.9. Based on the results of the reports and project presentations in each Section, the participants who received the largest total points are determined as the winners and awarded with the Winner's Certificates (I, II, and III class) and gifts from the Partners.

7.10. All Contest participants are awarded with the International Tournament "ORBITA" Participant Certificate in English.

7.11. The results of the Contest are final. Appeal is not applicable. The ratings given by the members of the expert jury are not commented on. The works submitted for the Contest are not reviewed.

8. Satellite Building Competition

8.1. Schoolchildren and students of colleges and universities aged 12 to 18 years old at the time of the beginning of the competition are allowed to take part in the Satellite Building Competition (hereinafter - the Competition). It is also allowed for university students aged up to 21 years old at the time of the beginning of the competition to participate in the team in the number of no more than two students per team.

8.2. The number of participants in a team - no more than 6 people. If university students participate in the team, 4 schoolchildren and no more than 2 students per team are allowed. The team shall include members having the following roles: design engineer, programmer, researcher, and radio engineer.

8.3. Each team shall have at least one but no more than two adult mentors. The mentors are not the team members and have no right to work on the team projects. Mentors can provide academic advising to the project and advise their teams on technical and organizational issues.

8.4. The Satellite Building Competition consists of three phases:

- National-level selection of the finalist team;
- Preparation to the Finals;
- Finals.

8.5 National-level selection

8.5.1 National-level team selection takes place online via the “Orbita” online service: <https://orbita.education/en/WL/events/70/285> and involves the following:

- Participant registration and filling in questionnaire;
- Team essay;

- Team assignment to develop a concept of space experiment on board a CubeSat.

8.5.2 Team essay is written by the team members to clarify the declared project subject and to demonstrate the members' skills and knowledge on the key fields: 3D modeling, engineering, circuit design, programming, radio engineering.

8.5.3 Team assignment for development of a space experiment on board a satellite is prepared by describing the subject in the prescribed form supplemented by illustrations and source references. The evaluation criteria are provided in ***Application 2***.

8.5.4 When the completed assignments from the teams are accepted, the Organizers (National Committee) select three teams for an interview, during which one team is determined as the winner of the national-level phase and qualified for the international Finals. An interview is required to verify the stated skills and capabilities of the team, their understanding of the processes, and independent performance of tasks.

8.6. Preparation for the Finals

8.6.1 All participating teams qualified for the Finals shall meet the requirements for participation in the Tournament "ORBITA", including their age, health status, and the provision of documents (including written consent from the parents of minors).

8.6.2 The National Committee ensures the preparation of the winning team of the national-level phase for the international Finals: it provides the team with the opportunity to work on the educational site using the necessary tools, supplies, and other materials (if necessary) and organizes the preparation of the team for the Finals.

8.6.3 The Organizers provide (free of charge) all finalist teams with a kit for assembling a 3U CubeSat spacecraft based on the IntroSat satellite construction set without a payload included. The sets of components for assembling the 3U CubeSat will be dispatched from July 1-25, 2025.

8.6.4 The delivery method is determined by the Organizers or National Committees and their appointed officials and may be limited to the pick-up point of the delivery service closest to the recipient;

8.6.5 Any documentary evidence, including but not limited to a delivery service invoice signed upon receiving the set or a photograph of the team members with it, is considered as confirmation of the equipment delivery.

8.6.6 During preparation for the in-person Finals, the Tournament Organizers hold at least three common webinars on working with the received equipment and the basics of microcontroller programming. In addition, at least five individual online consultations with the Tournament Experts are available for each team.

8.6.7 The webinar and consultation schedule is provided on the websites <https://spaceeducation.info/en/orbita/>, <https://orbita.education/en/WL/events/70/285> and on the Tournament social media at the beginning of the mission projecting phase and no later than July 10, 2025.

8.6.8 Time of the events in the schedule can be changed at any time as agreed with the teams, Organizers, and National Committees.

8.6.9 The winning team of the national-level phase works out the concept of the experiment on board the satellite and presents it to the Tournament Organizers on the agreed dates online (the National Committee, if possible, in person).

8.6.10 After defending the concept of the experiment and subsequent refinement, the team assembles the satellite with the payload and prepares it for the stratospheric launch at the Finals.

8.6.11 The results of this preparation can be taken into account for the evaluation of the team's presentation at the Finals.

9. Tournament Schedule

Event	Timeframe
National-level phase of the Cosmonautics Project Contest	May 1, 2025 – July 31, 2025
National-level phase of Satellite Building Competition	May 1, 2025 – June 30, 2025
Dispatch of 3U CubeSat construction sets	July 25, 2025 – July 1, 2025
Development of missions by the Satellite Building Competition finalists	July – August 2025
Tournament Final	August 19 – 25, 2025

9.1. The Tournament timeframe may be changed (including extension of separate phases of the Tournament) by the decision of the Organizers and representatives of the National Committees.

10. Tournament Final

10.1. The final of the tournament takes place at the Quantorium Children's Technopark in Korolev. The presentation of the results of experiments within the framework of the satellite construction competition, as well as the International Space Education Forum, take place at the Memorial Museum of Cosmonautics, a state-funded cultural institution in Moscow.

10.2. The following is provided to all participants and two mentors of each team:

- Paid accommodation and three meals per day for the period of the Final;
- Experiment preparation equipment (3U Cubesat kit and preparation workshops for Satellite Building Competition);
- Stratospheric launch (Satellite Building Competition);
- Excursion program at the finals: visit to the museum of cosmonautics, Roscosmos facilities, meeting with a cosmonaut;
- Gifts, merch, souvenirs.

The flight of the delegation from the country is paid at the expense of funds raised by the organizers of the National Stage (plane or long-distance train tickets, from the place of accommodation to the venue of the Tournament).

10.3. For participation in the Tournament “ORBITA” from the National Committee an organizational fee of \$950 for the entire delegation from one country is provided.

10.4. The registration fee shall be paid no later than June 30, 2025.

10.5. The teams participating in the in-person phase of the Tournament in the direction of the Cosmonautics Project Contest shall bring the assembled mock-ups. Absence of the team representatives or the assembled mock-up at the beginning of the phase gives a cause to disqualify the team.

10.6. As part of the in-person Finals, the participants of the Satellite Building Competition design and develop a space mission based on a 3U CubeSat spacecraft.

10.7. The task of the Finals at the Satellite Building Competition involves development of the design of an experiment and a space mission project, development of a payload module prototype, its integration into the satellite structure and the satellite performance optimization, as well as conducting ground and flight tests of the designed items by means of a launch into the stratosphere to the altitude of up to 24 km.

10.8. During the Finals, the teams receive additional consultations from the Tournament Experts present at the in-person phase.

10.9. Evaluation of the participant's result at the Finals consists of the evaluation of the preliminary preparation of the team, evaluation of the results of objective tests of the items created, Experts' evaluation of the team result, and the results of the project defense in front of the Expert Council of the International Tournament "ORBITA".

10.11. The winners of the Satellite Building Competition are the teams that successfully completed the experiment during the stratospheric launch and received the highest total points.

10.12. The awardees of the Satellite Building Competition are the two teams that successfully completed the experiment during the stratospheric launch following the winner in the rating.

11. International Space Education Forum

11.1. The Forum is a multilateral scientific and educational event aimed at developing international cooperation between educational, research, and space engineering private and public enterprises, as well as extension of relations with academic communities and public circles, encouraging the exchange of views among scientists and experts in astronautics, satellite engineering, and other aerospace fields.

11.2. The Forum meetings are attended by delegations formed by the National Committees and the Tournament Organizers.

11.3. The following activities are planned within the framework of the Forum:

- Presentation of the results of the **Cosmonautics Project Contest** and **Satellite Building Competition** finalists at the exhibition and at the conference;
- Speeches of the space industry and space education experts;

- Exhibition launches of spacecraft mock-ups carried out by private companies and student design bureaus;
- Visits to Roscosmos State Corporation facilities, museums, and planetarium;
- Seminars and experience sharing between space education mentors.

11.4. Official languages of the Forum are Russian and English.

11.5. The Forum program and regulations are coordinated with the National Committees and approved by the Organizers no later than March 1, 2025.

11.6. The Forum takes place as a part of the Tournament in August, 2025.

12. Contacts of the Organizers

- ovchinnikov-space@yandex.ru +79636361191 **Ilya Ovchinnikov**
(National Committee of Russia, Director of Development of “Education of the Future” Company)
- az@introsat.ru +79138592111 **Alisa Zaripova** (National Committee of Russia, Deputy Director of Development of “Education of the Future” Company)
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- +919944210789, bharani@mcpledu.com **Mr. D.Bharanaidharan**,
(National Committee of UAE, Business Development Consultant Medovaya Consultants Private Limited, Madurai, Tamil Nadu, India).

Tournament websites:

- <https://spaceeducation.info/en/orbita/>
- <https://orbita.education/en/WL/events/70/285>

Application 1. Cosmonautics Project Contest Evaluation Criteria

Criteria	Maximal Quality Point
Scientific significance of the research/project; prospectivity; understanding of the area of research, analysis of the history of similar projects and studies (if any) and alternatives to the proposed solution	10
Project/research feasibility, technical elaboration of the study/project, making the approximate necessary calculations	10
Completeness and quality of the technical description of the project with specified stages of the project/research, visual demonstration of experiments, tests, etc.	15
Quality of processing research results, conclusions, and descriptions	15

***Application 2. Satellite Building Competition Application Form and Experiment
Concept Evaluation Criteria***

Satellite Building Competition Application Form

Procedure for Filling the Application

Any team member can fill out the form. The answers are entered in the third column. The fourth column contains hints on how to fill out the form – you can delete this column before submitting the application.

The first three fields must be filled (the team name, the team complement, and the organization). Applications, in which at least one of these fields is empty or the answer does not correspond to the meaning of the field, are not considered. The remaining fields can be skipped, but no points are awarded for missing fields.

Please save the filled application form as PDF (recommended) or DOCX, send and attach it on the “Orbita.Challenge” website in the dedicated event (Satellite Building Competition National-level Phase): <https://orbita.education/en/WL/events/70/285/7065>. If there are attachments such as pictures, they can be added to the end of the application form.

Application Form

Team Name: _____

#	Application Field	Answer	Filling Recommendations (you may delete this column before submitting)
1	Team name		As indicated at registration. MANDATORY FIELD
2	Team complement and experience		<p>Brief information about the team members and mentors, up to one paragraph per person.</p> <p>For the members: Describe the experience of all participants (including those who are not a part of three representatives) in space education courses, research, laboratory works, hobby clubs, engineering competition experience, space and stratospheric spacecraft project experience (if any).</p> <p>For the mentor(s): Provide a brief description of teaching and/or professional activity.</p> <p>Note: The experience itself is not evaluated but it helps the Experts in their work with the team and its project. MANDATORY FIELD</p>
3	Organization		The name and brief description of the organization (or community) on behalf of which the team works, give 2-4 sentences. If the team is gathered without the support of any organization, then you can specify this here instead of the description (remember that you still need to choose the organization that will receive the construction set – for example, a school or a hobby club where most of the participants study or the mentor works). MANDATORY FIELD
4	Spacecraft mission purpose		The purpose of the spacecraft developed within this project (if you are working on several spacecraft, describe the mission of the entire constellation).
5	Spacecraft main tasks		Immediate tasks (first of all, engineering ones) solved by the developed spacecraft. It would be good to demonstrate the performance of at least some of these tasks during the tests.
6	Project feasibility, practical significance and safety		Explain the importance and feasibility of the mission and/or any other reason why the project can be supported using the funds of the state or sponsors. If the project has already been supported, you can specify by whom and to what extent.
7	Brief description of the project current status		Describe the current stage of the project, whether the team has been fully formed, whether the concept of the desired mission has been fully formed, whether there are items already made (if any, describe them), whether any tests have been already conducted.
8	Mission scenario		General mission scenario (number and types of spacecraft, selected orbits, communication methods), as well as an experiment or a practical task implementation scenario (describe the operations and operation sequence performed by the spacecraft in space or the stratosphere, and operations and

			operation sequence performed on the ground). <i>(If attached as an Appendix or enclosure, specify the Appendix number or the file name).</i>
9	Spacecraft general schematic		Attach the spacecraft general schematic with explanations (if the spacecraft concept/layout is more or less developed). As the team chooses, this can be a figure, a sketch, or 3D model rendering. <i>(If attached as an Appendix or enclosure, specify the Appendix number or the file name).</i>
10	Design description		Describe if already known: <ul style="list-style-type: none"> - Body form factor and materials; - Power supply system, including power control, batteries, solar arrays, and other key elements (if any), power balance estimation (if made); - Radio transmitter(s) type, transmission frequency; - Stabilization and attitude control system (if any); - Thermal control system (if any); - Other service subsystems (if any and important for the spacecraft); - Payload; - Equipment selected as the payload and why it is selected (if already decided); if this equipment is of own design, describe it (if relevant); - Expected payload performance result, data downlinked during the flight or processed after landing. <p>The description shall explain what is already implemented and what is supposed so far.</p>
11	Control algorithms		Describe the control algorithms if already known, the tasks solved by the algorithms, and their implementation stage.
12	Photo or video of assembled spacecraft or their elements, and/or documentation samples		Attach from one to six photos, documents and/or links to the videos showing current status of the mock-up and/or prototype development. If any control algorithms have been already developed, it is recommended to attach a link to a video with their operation results. <i>(If attached as an Appendix or enclosure, specify the Appendix number or the file name).</i>
13	Other		Other information that may be useful for the Experts to evaluate the project based on the evaluation criteria. <i>(If attached as an Appendix or enclosure, specify the Appendix number or the file name).</i>

Evaluated Factor	Points	Evaluation Criteria
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Feasibility	0 - 5	The team's statement of the project's goals and objectives, practical significance, safety, and the availability of resources are evaluated. The main importance is the feasibility of the project (technical feasibility, the strength of the arguments for raising funds and/or supporting a free launch, etc.). 0 – The project is obviously impractical or obviously unfeasible; 1-2 – The project has educational value, but the practical significance and/or feasibility by the current team is highly questionable; 3-4 – The project is technically feasible and has practical significance, but is too complex for the team, or is not unique, or is at the early stage so the chances for its implementation cannot be assessed; 5 – The project is technically feasible, has tangible results, has scientific, social or economic significance, has practical application in the stratosphere or a high chance of supporting a free launch into space, provided that work on the prototype is successfully completed and all tests are completed.
Originality	0 - 5	The independence of work and the technical creativity of the team are evaluated. A significant disadvantage is the use of ready-made solutions; the advantage is a unique approach and non-trivial engineering solutions with a chance of success. Electronic and robotic components for non-specific purposes (microcontrollers, sensors, etc. not designed specifically for spacecraft) are not considered as ready-made solutions and do not reduce the points. 0 – The project uses a ready-made professional platform; 1-2 – A significant part of the project consists of ready-made modules and components purchased on the market or provided by partners, or there is a reason to believe that a significant part of the work is carried out by professional partners; 3-4 – The project uses some ready-made modules and/or involves active help of industry partners, but in general it is a truly unique team work, or unusual solutions are obviously ineffective; 5 – The project is certainly original, and at the same time quite effective and feasible from an engineering point of view.
Mission development	0 - 5	The quality of the engineering development of the mission is evaluated, including the structure of the constellation (if there is more than one spacecraft), orbits (in case of a space mission), communication sessions, the choice of payload equipment and its relevance, the estimation of the energy balance and thermal conditions, the order of the main task implementation. 0 – The data provided is obviously insufficient for evaluation, or the described mission makes no sense, or it does not meet the goals set; 1-2 – The development is clearly at the early stage, and descriptions of important aspects of the mission are missing or contradictory; 3-4 – Many aspects of the mission are thought-out and rational in general, but there is still significant work to be done on the details; 5 – The mission looks well thought-out, high-quality calculations are presented.
Spacecraft development	0 - 5	The quality of the mission and spacecraft description is evaluated. 0 – The data provided is obviously insufficient for evaluation, or the described prototype is inoperable; 1-2 – The development is clearly at the early stage, important elements of the design description are missing or contradictory; 3-4 – The design and technology are thought-out and rational in general, but there is still significant work to be done on the details; 5 – The design and technology look well thought-out and quite detailed.
Mock-up or prototype availability	0 - 5	The submitted materials (documents, photos, videos) demonstrating the results are evaluated. 0 – Materials are not provided or obviously insufficient; 1-2 – The materials provided are obviously insufficient, or the practical results are still at the early stage (individual elements); 3-4 – Photo and video evidence of the developed prototype of the hull and/or individual subsystems and/or payload are provided; 5 – An evidence of the presence of the assembled prototype is provided.
Algorithm operation	0 - 5	The video or other evidence of operating algorithms (for example, stabilization or communication sessions) is evaluated. 0 – Materials are not provided or obviously insufficient; 1-2 – Operation of individual algorithms (for example, stabilization or communication session) in isolation from the prototype is shown; 3-4 – Individual algorithms are shown on the prototype; 5 – The operability of various algorithms is shown on the prototype.
Total	0 - 30	