



Brazilian International Rocket Simulation Tournament

BIRST



BIRST 2026 (OSIFOG 2026)

Brazilian International Rocket Simulation Tournament Consolidated Regulations

Regulations No. 1 · 1.1 · 2 — Unified Version

Includes provisions on International Participation

1. Initial Provisions

1.1. The Regulations

This document unifies Regulations No. 1, No. 1.1, and No. 2 of the 1st Brazilian Rocket Simulation Olympiad – OSIFOG 2026, incorporating all published amendments and supplementary provisions. It supersedes all previous versions.

1.1.1. The OSIFOG 2026 organizing committee reserves the right to amend provisions of these regulations when legitimately necessary, communicating any changes through official channels.

1.1.2. Any new provision takes effect on the date of its publication through official channels.

1.1.3. The official channels of OSIFOG 2026 are the Google Classroom platform, the website osifog.com.br, and the YouTube and Instagram channels [@osifog.official](https://www.instagram.com/osifog.official).

1.2. Nature

OSIFOG 2026 is an educational, cultural, and recreational initiative. Participation is entirely voluntary and is not linked to the purchase of any goods, services, or rights.

1.3. Objectives

The objectives of OSIFOG 2026 are:

- 1.3.1.** To foster scientific inquiry through foundational concepts that govern aerospace engineering;
- 1.3.2.** To introduce the importance of simulation software capable of anticipating events in a real rocket launch;
- 1.3.3.** To build an olympiad community of collective support, integrating experts and beginners in rocket design using the OpenRocket simulator;
- 1.3.4.** To encourage the simulation enthusiast community to develop projects based on real-world situations and problems;
- 1.3.5.** To promote the training of teachers and students in scientific olympiads;
- 1.3.6.** To promote scientific exchange between national and international participants in the field of aerospace simulation.

2. Participation

2.1. Levels

OSIFOG 2026 is open to anyone interested. Participants are distributed into three levels of complexity:

- 2.1.1.** Level 1 – Elementary School;
- 2.1.2.** Level 2 – High School;
- 2.1.3.** Level 3 – Open Adult / Undergraduate.
- 2.1.4.** Allocation to different levels shall be based on the participant's educational level and age, in accordance with items 2.1.5 and 2.1.6.
- 2.1.5.** Level selection shall take place at the time of completing the Team and Exam Registration Form (item 3.2.3.).
- 2.1.6.** The chosen exam level must necessarily correspond to the educational level of the participating team. However, double or triple participation in higher levels is permitted; participation in lower levels is never allowed.
- 2.1.7.** Mixed-level teams are permitted; however, their participation in exams is limited to the level of the team member with the highest educational level, and registration in lower levels is prohibited.
- 2.1.8.** Teams with Level 3 candidates will exclusively take the Level 3 exam.

2.1.9. Participation in more than one level is allowed, though optional.

2.2. National Participants (Brazil)

All provisions of these regulations apply to participants residing in Brazil. In particular:

2.2.1. Registration is individual and free of charge for the First Phase.

2.2.2. The registration process consists of filling out the form available in the bio of the official olympiad Instagram profile (@osifog.official) or on the website, and joining one of the Google Classroom classes.

2.2.3. National participants are not authorized to use forms intended for international participants.

2.2.4. Participation in all phases is completely free of charge, with no additional costs for taking the exams.

2.3. International Participants

All provisions of these regulations apply to international participants. In particular:

2.3.1. Participants from any country outside Brazil may register for and participate in BIRST (OSIFOG) 2026.

2.3.2. Competition is global. National and international participants compete in a unified ranking within level 3.

2.3.3. International participants are only permitted to register for Level 3 and must comply with all applicable entry rules.

2.3.4. International participants may use a separate registration form, when indicated, exclusively for participants outside Brazil. Brazilian participants may not use this form, nor may international participants use national forms. The nature of each form will be indicated in its title, which carries full authority.

2.3.5. Alternative exam submission dates may be established for international teams due to differences in time zones or school calendars. Specific dates will be announced in the Secret Mission document (item 4.1.1.) and on official channels.

2.3.6. The international evaluation period may begin and end on dates different from those established in items 4.1.3. and 4.1.4.

2.3.7. All official communications may be conducted in Portuguese and English.

2.3.8. The organization may, at its discretion and without obligation, make translated versions of support materials available, which shall not constitute a right of the participant.

2.3.9. BIRST (OSIFOG) protects the data of all participants, national and international, in accordance with the principles of the Brazilian General Data Protection Law (LGPD) and, to the extent applicable, the data protection legislation of each participating country.

2.3.9. Participants of **any** age and educational level are eligible to compete in Level 3.

2.3.10. The deadlines and submission dates for all forms may also be announced on the official website.

2.3.11. International exams will begin on September 20, 2026, with the release of the Secret Mission document.

2.3.12. International exams will close on September 26, 2026, at 11:59 PM (UTC).

2.3.13 For international participants, the deadline for submitting the Registration Form and the Team Registration Form is September 19, 2026.

3. Registration and Teams

3.1. The First Phase (Registration)

The First Phase of OSIFOG 2026 consists of the registration stage and the preparatory cycle for the exams.

3.1.1. First Phase registrations are open until the date indicated and updated in the forms.

3.1.2. Registration is individual and does not require team formation at this stage.

3.1.3. Only participants registered in the First Phase may take part in subsequent stages.

3.1.4. Students enrolled in the First Phase may choose not to take the exam.

3.2. Structure of the First Phase

3.2.1. Google Classroom classes serve as the official platform for announcements, tutorials, and exams.

3.2.2. Tutorials and instructional materials essential for subsequent stages will be posted in the Google Classroom classes starting in May 2026.

3.3. Teams

3.3.1. Participation in subsequent stages – including the exam – will be carried out in teams of 1 (one) to 3 (three) participants.

3.3.2. Only teams that have properly completed the Team Registration Form before the release of the Secret Mission document (Exam Instructions) may take the exam.

3.3.3. The Team Registration Form is distinct from the First Phase registration form and from the Exam Instructions.

3.3.4. The Team Registration Form will be used to organize teams, designate the team captain, and officially name the team.

3.3.5. The team captain will be responsible for the official submission of the OpenRocket project file (.ork) through the exam submission form.

3.3.6. Mixed teams consisting of both national and international participants are permitted.

4. Exams

4.1. Dates and Schedule

4.1.1. The official exam instructions will be contained in the document called the Secret Mission (Exam Instructions), sent at the beginning of the evaluation period.

4.1.2. From the date the Secret Mission document is sent, teams will have 7 (seven) days to develop a rocket project in OpenRocket software based on the provided instructions.

4.1.3. National exams will begin on July 19, 2026, with the release of the Secret Mission document.

4.1.4. National exams will close on July 26, 2026, at 11:59 PM (Brasília time – BRT, UTC-3).

4.1.5. For international teams, separate start and end dates may be established. Dates will be announced in advance on official channels (items 2.3.5. and 2.3.6.).

4.1.6. The organization reserves the right to postpone or bring forward stages to ensure the smooth progress of BIRST (OSIFOG) 2026. Therefore, it is essential to follow the official channels.

4.1.7. Evaluation will take place in July 2026, with results announced starting in September 2026.

4.1.8. The announcement of results may be delayed depending on demand and available resources.

4.2. Software

4.2.1. Installing **OpenRocket** – a free and lightweight application – is mandatory to take the exam. It can be installed from the official website: openrocket.info

4.2.2. The material provided in the classes will be sufficient to complete a fair and challenging exam.

4.2.3. The use of the **OpenWind** and **OpenEarth** tools is also mandatory for the exam. These applications do not require installation and can be accessed directly through the OSIFOG online platform: [OSIFOG Simulator Platform](#).

4.2.4. All functionalities of OpenWind and OpenEarth required for the exam will be covered in the instructional materials and classes provided by the organization.

4.3. The Exam

4.3.1. The exam will be conducted remotely (online) through the Google Classroom classes.

4.3.2. The exam will consist of designing a rocket project that meets the requirements of a contextualized aerospace mission.

4.3.3. The exam is entirely practical; there will be NO multiple-choice or essay theory questions. It will consist of a single challenge in which the specifications of an OpenRocket rocket project to be built are presented in context.

4.3.4. All additional details will be contained in the Exam Instruction Document – Secret Mission.

4.4. Submission

4.4.1. Teams must:

- save the OpenRocket project in .ork format;
- name the file with the corresponding level and the official team name;
- submit the file through the official exam submission form.

4.4.2. The exam submission form may also request images, screenshots, and other supplementary files.

4.4.3. Videos will not be requested under any circumstances.

4.4.4. Physical rocket models will not be accepted. The exam consists exclusively of the digital development of three-dimensional projects in the OpenRocket software.

4.4.5. Late submissions will not be accepted under any circumstances.

5. Evaluation

5.1. Methodology

5.1.1. The Evaluation Panel will assess projects through strictly mathematical calculations based on data extracted from the OpenRocket software. There will be no subjective, aesthetic, or artistic evaluation.

5.1.2. The Evaluation Panel will consider not only the simulated rocket's apogee, but also pre-defined equations and indices informed within the challenge context, such as: stability coefficient, angle of attack, instantaneous thrust, stage landing location, and others.

5.1.3. All submitted files will be individually and thoroughly analyzed by the evaluation team, which will conduct a detailed reading of each project in order to extract the parameters defined in the Secret Mission document.

5.2. Scoring Methodology

5.2.1. The official mathematical scoring expression for each level will be released together with the Secret Mission document during exam week.

5.2.2. The same mathematical expression will be applied equally to all teams within a given level.

5.2.3. Illustrative example only: suppose a hypothetical instruction to launch a rocket that completes a course in exactly 3 seconds while carrying the maximum payload M possible, with a minimum mass of 300 g – the organization would read the values of T (course time) and M (transported mass) and apply a formula such as:

$$\text{Score} = 10 - (3 - T)^2 + M/300, \text{ if } M \geq 300 \text{ (Qualified)}$$

Disqualification if $M < 300$

5.3. Disqualification

5.3.1. All critical items will be thoroughly analyzed. If an error is identified in a critical element, the team's disqualification will be automatic.

5.3.2. Critical elements will be defined in the Secret Mission document.

5.3.3. Disqualified teams will not be individually notified. Disqualified participants will not appear in the results ranking. Disqualification may include:

- removal from Google Classroom classes;
- removal from official results lists (ranking);
- invalidation of the participation certificate.

5.3.4. There will be an official appeal period after the announcement of results. Appeals must be submitted exclusively through the organization's official email: osifogcontato@gmail.com

6. Awards and Scoring

6.1. Ranking

6.1.1. Valid teams (non-disqualified) will be organized in a ranking according to their final scores, separated by level.

6.1.2. Non-awarded teams may not have their scores disclosed and will not appear in any published ranking.

6.2. Certificates

6.2.1. Awards will be given according to the following certification system, applied independently for each of the three levels:

- the top 6% of scores will receive a Gold Certificate;
- the next 12% will receive a Silver Certificate;
- the next 18% will receive a Bronze Certificate;
- the next 14% will receive an Honorable Mention Certificate;
- the remaining 50% will receive a Participation Certificate.

6.2.2. Half of all participating teams will be awarded through the certification system. All participants will receive a certificate (award or participation).

6.2.3. National and international participants compete in the same global ranking within level 3.

7. General Responsibilities

7.1. Oversight and Security

7.1.1. It is the team's sole responsibility to ensure that all rules are followed, all requirements are met, and all files are correct.

7.1.2. The organization has a dedicated team prepared to thoroughly evaluate and review all submitted projects. The evaluation will be conducted in a careful, organized, and secure manner.

7.1.3. Any failure to comply with the rules established in the Secret Mission document or in the Exam Submission Form may result in penalties, loss of points, or automatic disqualification.

7.2. Intellectual Property, Image Rights, and Academic Integrity

7.2.1. By participating in OSIFOG 2026, teams authorize the organization to use images, team names, renders, screenshots, and photos of submitted projects for educational, institutional, scientific, and promotional purposes, including on the official Instagram, the official website, and in olympiad promotional materials.

7.2.2. Plagiarism constitutes a serious infraction and may result in immediate disqualification. The organization emphasizes that plagiarism is an illegal practice under applicable Brazilian copyright law.

7.2.3. The use of Artificial Intelligence is permitted. OSIFOG recognizes AI as an educational tool and a learning aid.

7.2.4. Bibliographic research, consultation with other people, external research, and the use of technical references are all permitted. OSIFOG believes in learning through the analysis of external experiences and knowledge sharing.

7.3. Data Protection (LGPD)

OSIFOG protects the data of all participants – national and international – in accordance with the guidelines of the Brazilian General Data Protection Law (LGPD) and applicable international privacy principles.

8. Official Designation and Institutional Identity

8.1. Official Designations

8.1.1. The competition shall bear the official designation in Portuguese **Olimpíada Brasileira de Simulação de Foguetes (OSIFOG)**, which shall be the preferred nomenclature in official documents, certificates, institutional

communications, publications intended for the Brazilian public, and other administrative acts.

8.1.2. The competition shall also adopt the international English designation **Brazilian International Rocket Simulation Tournament (BIRST)**, intended for international outreach, relations with foreign organizations, English-language publications, international promotional materials, and other activities directed toward audiences outside Brazil.

8.1.3. The designations **OSIFOG** and **BIRST** refer to the same competition, organization, and administrative structure and shall not be construed as separate events. Both designations may be used jointly or independently, according to the communication context, while preserving the competition’s unified institutional identity.

8.2. Administrative Equivalence

8.2.1. For administrative and regulatory purposes, any reference to **OSIFOG**, **Olimpíada Brasileira de Simulação de Foguetes**, **BIRST**, or **Brazilian International Rocket Simulation Tournament** shall be deemed equivalent and shall produce the same effects under these Regulations.

8.3. Visual Identity

8.3.1. The Organizing Committee may use distinct logos or adapted versions of the visual identity for each designation, provided that the institutional unity of the competition is maintained. The visual elements associated with the **OSIFOG** and **BIRST** brands shall constitute official representations of the same educational, scientific, and technological initiative.

8.4. Authorized Forms of Use

8.4.1. In promotional materials, certificates, medals, trophies, digital platforms, social media, technical documents, and other means of communication, the Organizing Committee may employ either official designation or both simultaneously, including, but not limited to, the following forms:

- I** – Olimpíada Brasileira de Simulação de Foguetes (OSIFOG);
- II** – Brazilian International Rocket Simulation Tournament (BIRST);
- III** – OSIFOG – Brazilian International Rocket Simulation Tournament;
- IV** – BIRST – Olimpíada Brasileira de Simulação de Foguetes.



Official Contacts and Channels

YouTube and Instagram: @osifog.official

Email: osifogcontato@gmail.com

Platform: Google Classroom (official classes)

Website: osifog.com.br