

Rules and materials request to be submitted electronically in advance for Onstage competitions (By 1/6/2025):

Advanced ONSTAGE category:

For this category we use OnStage's international regulations:

https://robocup-junior.github.io/onstage-rules/main/onstage_rules.html

Required documentation:

- Poster (digital copy)
- Video (Maximum video length is 6 minutes)
- BOM (Bill Of Material)

POSTER: For Advanced and Preliminary categories, the original poster, no larger than A1 size (60 x 84 cm), must be physically brought to the competition and will be displayed on site.

Preliminary ONSTAGE category:

For this category we use the international rules of **OnStage Entry League**, emphasizing that the age of participants will be extended to 19:

<https://robocup-junior.github.io/onstage->

[rules/main/onstage_entry_rules.html](https://robocup-junior.github.io/onstage-rules/main/onstage_entry_rules.html) Required documents:

- Poster (digital copy)

POSTER: For Advanced and Preliminary categories, the original poster, no larger than A1 size (60 x 84 cm), must be physically brought to the competition and will be displayed on site.

OnStage First Steps category:

For the First Steps category, the rules in the regulations published below will be followed.

Required documentation:

- Technical document

POSTER: Optional, (but in the case maximum A1 format). Does not score

Robocup OnStage regulations First Steps category :

Objective:

The 'goal is to create a performance lasting a minimum of one minute using robots in an engaging way.

This includes a range of possible types of performance such as dance, storytelling, theater or art installation.

The 'performance can be carried out by combining the presence of humans and robots on the stage platform, totally freely.

The focus should be on the activity of the robot(s), but interaction and harmony between humans and robots is appreciated and encouraged.

Teams are encouraged to be creative, innovative, and entertaining, both in setting up the robots and in creating and carrying out the performance.

Teams and chaperones:

Age of team members: 5 to 9 years old.

Minimum and maximum number of members of a team: The team must consist of a minimum of 2 to a maximum of 5 members.

Teams must have a chaperone accompanying and assisting the team, whose age is 19 or older.

Each team member must fill a role within the team.

Each participant can only be part of one team. Members cannot be shared between teams and/or leagues.

Spirit and Behavior:

All participants (team members and chaperones) are expected to behave in a respectful and cooperative manner toward other competitors, volunteers, judges and organizers.

Stage

The size of the stage area for the performance is a rectangular area of 5x4 meters (m), with the 5-meter side facing the judges.

The floor provided will be in flat (non-glossy) white-colored surface, e.g., painted MDF (pressed wood fiber). The floor joints will be as smooth as possible, but robots should be prepared for any unevenness up to 5 mm on the floor surface. Although every effort will be made to make the stage very flat, it may not be possible, and teams must be prepared to handle this eventuality.

Robot:

Teams must use during the performance:

A number of robots greater than one Or

A robot that implements at least one sensor and uses it to achieve human-robot interactions.

Teams are encouraged to create costumes and/or decorations specifically for their robots.

The presence of scenic objects designed to enrich the performance on the stage platform is encouraged.

Music and multimedia presentations

Teams can use music or video to complement their performance.

If a team uses copyrighted music, it must comply with the copyright laws of the region where the event is held.

Teams are invited to provide a video or slideshow presentation as part of their performance.

Communication and Localization

Robots are encouraged to communicate with each other during the show. Suggested and allowed communication protocols are infrared (IR) and Bluetooth (LE and classical).

There should be no communication between off-stage and off-stage devices

Mode of judgment:

The judgment covers the following aspects:

Technical paper: 15% of total score

Interview: 35% of total score **Field**

performance: 50% of total score

Technical paper:

The technical document is used to present the work done to the jury. In the document, teams will make explicit the characteristics of their robots, the type of robot, the program, and any aspect concerning technical preparation that they consider relevant.

The technical document can be drafted according to directives and guidelines issued by the RoboCupJunior OnStage League Committee.

Field performance

There are two performances allowed. The best of the two will be taken into account in judging.

The minimum performance duration must be one minute using the robots in a non-repetitive and engaging manner. Each team will have seven minutes on stage; in this time the team must prepare the stage, make the introduction, perform the performance, and clear the stage for the next performance.

Robots must be started by team members simultaneously with the start of the 'performance.

Penalties to be deducted from the score:

3 points per robot leaving the stage 3

points per restart

3 points per minute for not clearing the stage in time

People on stage

Team members can perform with their robots on stage during the show. Care must be taken not to hide important parts of the robotic performance from the judges and audience.

Restart (Restart)

Teams may restart their play if necessary. Penalty points will be deducted from the score.

The team must leave the stage after their allotted time has expired.

The restart must be clearly signaled verbally by a team member on stage.

Preparations for stage performance

It is the team's responsibility to ensure that the music and video/presentation are played correctly before the first performance by working with the video/audio managers of RoboCupJunior On Stage.

Content

Performances must not include violent, military, threatening or criminal elements. This includes inappropriate or offensive words (including music) and images.

Security and energy considerations

*Under no circumstances may the main power supply be used during the performance.
Each robot should be equipped with a battery, with a maximum voltage of 15 volts.*

Lithium batteries should be transported or moved in safety bags.

*Participants should design their robots so that they can be easily carried by themselves.
The robots should have a weight that team members can carry and lift to the stage without difficulty*

Interview

Teams will be interviewed during the competition by the panel of judges. At the time of the interview, questions will be asked of the individual team members regarding the work done in preparing for the event by both the team and the individuals. Teams will be required to bring all robots used , all devices used for their programming, and optionally may show a paper document containing the robot programming code.

interview duration : 10 minutes

Translator

Technical interviews are conducted in the main language of the event. If teams need a translator, they must notify RoboCupJunior On Stage officials before the event.

Extra time will not be given to teams with a translator.

Scoresheet:

Interview:

1-9 points for hardware knowledge

- Ability to explain material choices in the project /2
- Ability to explain the role of sensors and how they are used /3
- sustainable design choice /2

- Additional innovation to be applied for upcoming competitions (use of new sensors, additional materials etc...) /2

1-9 points for software knowledge

- Ability to explain why they chose that programming language /3
- Ability to explain the difficulties faced during programming /2
- Ability to distinguish individual instructions of the chosen language /2
- Additional innovations to be applied for upcoming competitions at the software level /2

1-9 points for clarity of exposition

- clear language
- correct terminology
- completeness in answers
- awareness

1-8 points for teamwork

- Ability to demonstrate the work done, indicating who carried out certain activities /3
- Ability to collaborate or intervene to further the topic /2
- for additional innovation specify how they want to address, whom to ask for more insights, and how they want to divide the work /3

Field performance

1 - 25 points for showmanship/coordination (high/medium/low)

- The theme is clearly displayed throughout the performance.
- The performance entertains and elicits positive reactions from the audience.
- Effective use of space and set design.
- The robots' costumes add value to the performance.

1 - 25 points for originality of idea (high/medium/low)

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-Penalty

Technical document

1-4 points for clarity of exposition (low/medium/high)

- the project overview is clearly described and is consistent with the project /2
- the challenges faced in the project with also the way to overcome them were listed clearly /1
- the point of pride in the project is consistent and clearly described /1

1-3 Points for presence of pictures of the material used (yes/partial/no)

- pictures of the robots have been attached /1
- And was attached the image of the language used /1
- and an additional image has been attached /1

1-4 points per level of robot description (low/medium/high)

- type of robot was indicated and described correctly /1
- use of sensors has been indicated and is consistent with the project /1
- the choice of battery is consistent and correct to the robot used /1
- And the microcontroller was indicated and is consistent with the robot used /1

1-4 points per level of software description (low/medium/high)

- choice of programming language and consistent /1
- code image and consistent with the chosen language /1
- additional description of the program used or language /2