RoboCupJunior OnStage Rules 2026

OnStage League Committee 2026:

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These are the official draft rules of the *RoboCup Federation* for the *RoboCupJunior* (RCJ) OnStage events in 2026.

The International Original Rules (in English) have priority over any translations.

Major changes from the previous years OnStage rules are written in **red** . **Significant deleted content will be recorded in the footnotes.**

Teams should make sure to review *ALL* pages of these rules. The rules have been changed to deepen and broaden the educational benefits of competing in RoboCupJunior. It focuses on the evolving technologies available in our time.

The rules, score sheets, and all forms of documentation can be downloaded from the official RoboCupJunior website (https://junior.robocup.org). Each team has a responsibility to verify the latest version of these documents prior to the competition, as changes may be made at any moment. Teams are encouraged to study all documents in detail.

RoboCupJunior Forum

For inquiries and questions about the rules or competition updates, the **Official RoboCupJunior forum** (https://junior.forum.robocup.org/) can be used to contact the OnStage League Committee. All official communication from the committee will be published here before and during the competition season.

RoboCupJunior OnStage Community Website

Ressources for participating in the OnStage league can be found on the OnStage community website: https://robocup-junior.github.io/onstage

RoboCupJunior OnStage YouTube channel

Examples of good performances and documentation can be found on the **Official RoboCupJunior OnStage YouTube channel** (https://www.youtube.com/@rcjonstage).

1 Overview

1.0.1 RoboCupJunior OnStage invites teams to design, build, and program creative and autonomous physical robots. The objective is to create a live robotic performance that **uses a wide variety of technologies to engage an audience**. This includes a range of possible performances, such as, but not limited to: dance, storytelling, theater, games, etc. (for more inspiration, check out the [?bridgehead]). The performance may involve music, but this is optional. The league is intended to be open-ended. Teams are encouraged to be creative, innovative, and entertaining in both the design of the robots and the overall performance.

1.0.2 An OnStage performance should make use of innovative technologies or employ technology in new, previously unexplored ways, adding value to the performance. Innovation can be achieved through clear evidence of testing, research, and development, potentially inspiring future competitors.

1.0.3 An OnStage Performance must showcase the implementation and integration of robotic features in ways that visually enhance or add value and contribute to the theme or portrayed story. More information about the selection of the features can be found in Section 3, Judging Overview.

1.0.4 During the International RoboCupJunior OnStage Competition, teams also take part in a SuperTeam Challenge. The SuperTeam Challenge is a robotic performance created by two or more cooperating teams from different regions. The SuperTeams spend a short time on collaborative performance creation. More details will be released before the International RoboCupJunior competition.

1.0.5 [1]

2 RoboCupJunior International 2025 General Rules

2.0.1 These rules apply to the international RoboCupJunior competition. However, regional, super-regional, and local tournaments may have variations or adaptations to these rules to suit their specific competition

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[1] In previous version this said "From 2021 onwards, there will be no sub-leagues in RoboCupJunior OnStage."

needs. It is important to check with the organizers of the tournaments you are participating in to confirm which exact rules will be in use.

2.0.2   If teams are unsure about any aspects of the General Rules or specific League Rules, they are encouraged to inquire via the official RoboCupJunior Forum for clarification: https://junior.forum.robocup.org/

2.1   Team requirements

2.1.A   Team Size

2.1.A.1   **Minimum Team Size**: Teams must consist of at least 2 members.

2.1.A.2   **Maximum Team Size**:

- Soccer and Rescue Leagues: 4 members.
- OnStage League: 5 members.

2.1.A.3   **Shared Members and Robots**: No team member(s) or robot(s) may be shared between teams.

2.1.A.4   **Junior Mentor Requirement**: Each Junior team must have at least one Junior Mentor registered and attending with the team.

2.1.B   Age Requirements

2.1.B.1   **Junior Student Members:** Must be between 14 and 19 years old as of July 1 of the competition year.

2.1.B.2   **Junior Mentors and Parent/Chaperones:** Must be 19 years or older as of the competition start date.

2.1.C   Team Members

2.1.C.1   **Entry Leagues**: RoboCupJunior Entry leagues and other "Primary" divisions (where minimum age may vary) are not run at the international competition but feature in many regions and SuperRegional tournaments.

2.1.C.2   **Technical Roles**: Every team member must have a defined technical role (mechanical/design, electrical/sensing, software etc.) and should be able to explain their role during technical judging.

2.2   Robot Requirements

2.2.A   Robot Communication

2.2.A.1   **Permitted Communication**: Communication between robots during gameplay is allowed as long as it uses the 2.4GHz spectrum and its power output does not exceed 100 mW EIRP under any circumstances.

2.2.A.2   **Responsibility**: Teams are responsible for managing their robot communication. Spectrum availability is not guaranteed.

2.2.A.3   **Component Communication**: Communication between components of the same robot is permitted under the general guidelines.

2.2.A.4   **League Adaptability**: Each league may modify the robot communication rules to ensure they meet their specific requirements.

2.2.B Safety and Power Requirements

2.2.B.1 Electrical Power:

- Robots must not use mains electricity.
- Maximum allowed voltage: 48V DC or 25V AC RMS.
- Voltage must be easily measured during inspections, and measuring points must be covered for safety or designed with safety considerations in place.

2.2.B.2 Battery Safety:

- Lithium batteries must be stored in safety bags, and charging must be supervised by team members in competition areas.
- Teams must follow safety protocols, including battery fire handling and evacuation procedures.

2.2.B.3 Robot Safety Design:

- **Power Management**: Secure batteries, safe wiring, and emergency stop functionality.
- **Mechanical Safety**: No sharp edges, pinch points, or other hazards. Actuators must be appropriate for the robot's size and function.
- **Hazardous Behavior**: Teams must report potentially dangerous robot behaviors at least two weeks before the event.

2.3   Documentation and Sharing requirements

2.3.A RCJ Team Posters

2.3.A.1 Purpose: Posters are a tool for sharing robot designs and insights with judges, teams, and the public. Posters will be hung in public competition areas in the venue and digital copies or photographs will be shared by RCJ after the competition.

2.3.A.2 Size: Posters must be no larger than A1 size (60 x 84 cm).

2.3.A.3 Content: Posters should summarize design documents and present the robot's capabilities in an engaging format.

2.3.B Technical Description Video (See League Documentation)

2.3.B.1 Content:

- **Robotic Demonstration**: Show fully functional robot systems to highlight technical aspects.
- **Design Process**: Explain design choices and team problem-solving approaches.
- **Presentation**: Clear and high-quality, explaining innovative or unusual techniques.
- **Innovation & Sustainability**: Highlight new technologies and sustainable practices.

2.3.B.2 **Submission**: Guidelines will specify video length and deadlines per league.

2.3.C   Sharing Team Resources

2.3.C.1 **Sharing**: Materials submitted by teams as part of the documentation submission will be shared on GitHub repositories for the leagues: https://github.com/robocup-junior

2.3.C.2 **Credit**: Teams must credit creators of external work and adhere to licensing rules. The focus should remain on personal growth and learning.

2.3.D   Plagiarism Guidelines

2.3.D.1 **External Code Use**: Teams are allowed to use external code but must credit the original creators.

2.3.D.2 **Learning Priority**: Teams should prioritize learning and not use complete solutions from others. Always pay attention to licensing rules.

2.3.E   Bill of Materials (BOM)

2.3.E.1 **Submission**: Teams must submit a BOM listing major components and materials used.

2.3.E.2 **Details**: The BOM must include:

- Component name/description (e.g., part number).
- Supplier/source of the component (including PCBs/machined components).
- Status (new/reused).
- Kit or custom-built.
- Price.

2.3.E.3 **Template**: A standardized BOM template will be provided with the league documentation submissions for the international competition.

2.4   Spirit and Behavior

2.4.A   Behavior

2.4.A.1 All participants are expected to behave themselves and be considerate and polite especially but not only towards other participants, volunteers, referees and organizers of all Junior and Major Leagues as well as the host venue.

2.4.B   Mentoring, Sponsorships and Component Reuse

2.4.B.1 Support from other teams, mentors, teachers, parents, sponsors, internet communities etc. is a core part of how teams learn and grow. To ensure fair competition and maximize learning it is required that none of the support they receive does the work of competing for the team. A good indication is the team's ability to explain not only what their robots' components do but also how they do it.

2.4.C   Onsite help

2.4.C.1   Teams are only allowed to receive help from other teams during the competition. To this end only student team members are allowed into the student work area except with temporary organizer permission. Anyone else is forbidden from touching the robots or their code, especially for repairs, changes, programming.

2.4.D   Violations

2.4.D.1   Teams that repeatedly conduct themselves in an unacceptable way may be disqualified from the tournament and asked to leave the venue.

3   Judging Overview

3.0.1   All teams are judged in the following areas: Technical Description Poster, Technical Demonstration Video, Technical Interview, and the OnStage Performance. Teams must highlight four of their robot(s) **features** in the work they present to the judges. Ask the following question - "What do we believe are our best system/sensor integration, electromechanical design, interaction, or software solutions implemented on our robot(s)? Why/how does our project stand out from other teams' projects?" The aim should be to present how the chosen features are integrated to enhance performance quality in unique and innovative ways. **[red]#A good feature is one that is specific, clearly defined, and demonstrates innovation, technical complexity, and integration into the performance. A good rule of thumb is that a feature is defined with a short sentence rather than a word or concept. For more information about how to choose the features, check the "How to Decide on Your OnStage Robotic Features" document at https://robocup-junior.github.io/onstage/resources/teams/how_to_features.html. Each selected feature must be distinct. Similar or overlapping features will be scored as a single feature. #**

3.0.2   Teams should describe and provide reasoning for their four chosen features in the Technical Description Poster and during their Technical Demonstration Video, before being judged on the implementation of these features during the Performance. In addition, teams should demonstrate their understanding of their systems in the Technical Interview.

3.0.3   More information on the selection of features can be found in the Article **How to Decide on Your OnStage Robotic Features** (https://robocup-junior.github.io/onstage/resources/teams/how_to_features.html).

3.0.4   For clarification on a teams' features, please do not hesitate to reach out to the OnStage League committee using the **RoboCupJunior Forum** (https://junior.forum.robocup.org/c/robocupjunior-onstage).

4   Authenticity and originality

4.0.1   Teams who, in the opinion of the judges, have knowingly produced duplicate robots, costumes, or performance movements (duplicate music is allowed) of another team will be subject to penalties. This applies to any previous RoboCupJunior Dance or OnStage performance. In case of doubts, the team must be able to provide clear documentation of their preparations and how they have come to their idea.

4.0.2   **Teams should inform the judges if robotic components have been featured in previous competitions.** To gain marks, teams should be prepared to provide insight on how substantial changes have been made between competitions as evidence of the students' continuing development of the technologies. Teams should specify how innovations have been done with their technologies and provide documentation to support their claims. **Teams with questions about previous component usage should contact**

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5 Performance (40% of total score)

5.0.1 The OnStage Performance is an opportunity to demonstrate the design, construction, and technical aspects of the robot(s) through a performance or stage show. For example, this could be a magic show, theater performance, story, comedy show, dance, or art installation. Teams are encouraged to be creative, innovative and take risks in their use of technology and materials when creating their performances.

5.0.2 Teams will present a live performance, in which their routine will be judged. Teams will present and demonstrate the four features to be judged, and higher marks will be awarded for the integration of these features and the value that they add to the performance. For more details on this, refer to the OnStage Performance Score Sheet. Teams must show originality, creativity and innovation throughout their performance routine. It is expected that all participating teams perform their best.

5.1 Stage performance

5.1.1 Teams have up to two opportunities to perform before the judges.

5.1.2 The duration of the performance routine must be no less than 1:30 minutes.

5.1.3 Each team has a total of seven minutes on the stage. This time includes stage set-up, introduction, and performance routine, including any re-starts due to factors under the team's control, and the time for packing up and clearing the stage. The timer only stops when the entire stage is clear with no remnants from the previous performance.

5.1.4 When a team is asked to come onto the stage, a RoboCupJunior official starts the timer.

5.1.5 If the time limit is exceeded due to circumstances outside the team's control (for example problems with starting the music) there will be **no penalty**. The judges have the final say on any time penalties.

5.1.6 Teams wait on the side of the stage before being welcomed on stage. A technician designated by RoboCupJunior officials will start the music and the audiovisual / multimedia presentation for the performance routine.

5.1.7 Performances will not be live-streamed for general public viewing. Recordings will be edited and released onto the RoboCupJunior OnStage YouTube channel. Teams have an option to request not to publish the recording of their performance .

5.1.8 Teams are strongly encouraged to use the time while they are setting up on the stage to introduce to the audience the performance and the features of their robots.

5.1.9 **Teams must indicate the start of their performance clearly with a "3-2-1" countdown to the judges.**

5.1.10 **Teams must indicate the end of their performance clearly once it's over (e.g. everyone coming to the front of the stage / thanking the audience for their attention / . . .).**

5.2 Restarts

5.2.1 Teams can restart their routine if necessary, at the discretion of the judges. There is no limit on the number of restarts allowed within the stage-time. Penalty marks will be deducted from the score.

5.2.2 The team can restart **without reentering the stage** and with a clear countdown (3-2-1) to the judges.

5.2.3 Scores and deductions are reset to 0 after the team has requested a restart. Deductions for every restart will be applied at the end of the performance according to the scoresheet.

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

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

5.3 Music and Multimedia presentations

5.3.1 Teams may use music or video to complement their performance. If a team uses copyrighted music, they should follow the Copyright Law of the region where the event is held.

5.3.2 Teams are encouraged to provide a visual or multimedia presentation as part of their performance. This can take the form of a video, animation, slideshow, etc. However, the content should be made by the team themselves.

5.3.3 Interaction between the robots and the visual display is allowed and encouraged.

5.3.4 A projector and screen or LED-screen is provided. The organizers cannot guarantee the height above the stage or the size of the screen.

5.3.5 A HDMI and 3.5 mm AUX cable is available on stage through which a laptop or other device can be connected to the display device. The length of the cable cannot be guaranteed.

5.3.6 If music is used, teams must provide their own audio music source. The preferred transport method is to place the sound or video file on a memory stick as an MP3/MP4 file. The memory stick should be clearly labeled with the team's name and should hold only the required files. It is essential that the music is given to a sound technician or a RoboCupJunior official before the start of a performance session. Teams are encouraged to bring multiple copies of the audio source file.

5.4 Stage

5.4.1 The size of the performance stage area is a rectangular area of 5 x 4 meters (m) for robots with the 5 meter side facing the judges.

5.4.2 There is a line marking the edge of the 5 x 4 meter stage. See Section 12, Appendix A.

5.4.3 The floor provided shall be made of a flat (non-glossy) white surface, for example, painted MDF (compressed wood fiber). While floor joints will be made to be as smooth as possible, robots must be prepared for irregularities of up to 5 mm in the floor surface. Whilst every effort will be made to make the stage flat, this may not be possible, and teams should be prepared to cope with this uncertainty.

5.4.4 **Teams should come prepared to calibrate their robots.**

5.4.5 **Examples of things to consider:**

- Metal components of the staging may affect the compass sensor readings
- Venue lighting condition can affect color sensor / image recognition readings
- Uneven floor surfaces can affect robots' movement and stability
- Venue sound conditions can affect sound sensor readings
- Etc.

5.5   Robots

5.5.1   Robots must perform autonomously.

5.5.2   Laptops, notebooks, mobile phones, tablets, Raspberry Pi, and other similar devices can be used as **autonomous** robotic controllers.

5.5.3   Teams should construct their own robot rather than using the instructions that come with a commercial kit. Teams are encouraged to design their robot appearance by themselves. If a team wants to use a famous character as their robot, the team should pay attention to the copyright of the character.

5.5.4   A team may have and use any number of robots. Robots may be of any size. However, using multiple robots does not necessarily result in obtaining higher points. Large robots do not count for more.

5.6   Communication and Localization

5.6.1   Teams are encouraged to design their robots to interact with a communication function. Robots are encouraged to communicate with each other during the performance. Suggested communication protocols are infrared (IR), Bluetooth (LE and classic), ZigBee, RFID or other localization platforms.

5.6.2   There must be no communication between off-stage and on-stage devices.

5.6.3   It is the team's responsibility to make sure that their communication function does not interfere with other teams' robots when practicing or performing.

5.6.4   Teams should prepare for disruptions in communication protocols before and during the setup and stage time.

5.6.5   Any localization beacons or markers for a robot's localization system should be placed within the confines of the stage.

5.7   Scenery

5.7.1   Interactive props can be used to add value to the performance.

5.7.2   The kind of props that are considered "interactive" are:

1. Props that interact with robots via sensors (mounted either on the robot or the props)

2. Props that interact with robots via communication

5.7.3   Robots can sense static props to perform a certain task or trigger an action provided that they are placed on the defined stage performance area.

5.7.4   Static props which do not form an integral part of the performance are discouraged since the focus of the performance should be on robots.

5.8   Robot Autonomy and Interaction

5.8.1   Robots may be started manually by human contact, sensor interaction or with remote control at the beginning of the performance.

5.8.2   During the performance, remote control of a robot is prohibited, including pressing buttons, keyboards, phone applications or similar interactions with touch-like sensors. Touch-like sensors are defined as passive sensors that have a logical single function dependent on human actions.

5.8.3 Humans directly influencing sensors to trigger the progression of the performance will not be rewarded highly.

5.8.4 Intelligent interaction should be used to dynamically alter the robot's behavior. Robots that interact with their environment and respond accordingly will be highly rewarded. Natural human-robot interaction using sensors responding to human gestures, expressions, sound, or proximity is encouraged.

5.8.5 Interaction between robots is highly encouraged. Robots are allowed to physically touch and can interact through sensors and wired/wireless communication.

5.8.6 All robot interactions must be visible to the judges for the entire performance. This includes the initial manual start of each robot.

5.8.7 Any clarifications regarding this ruling should be directed to the committee before the competition to ensure the interaction is permitted.

5.9 Humans on stage

5.9.1 Human team members may perform with their robots on the stage during the performance. If so, they should make sure not to hide important key components of their robot counterpart(s) from the judges/audience.

5.9.2 In order to keep the focus on the robots, humans on stage should make sure to follow basic acting guidelines (not blocking the view, not standing with their backs to the audience) and be professional on stage.

5.10 Deductions

5.10.1 Refer to the scoresheet for the list of deductions.

5.10.2 **All movements or interactions of and with robots that don't have any point of contact within the performance area** [2] will not be considered for the scoring, but will not lead to deductions.

5.10.3 **Robots started from outside the performance area will not be considered for judging during the whole performance.**

5.10.4 Teams are reminded that humans triggering the progress of the performance via touch-based sensors will be considered remote-controlled interaction and therefore will be considered an unplanned human interaction.

5.10.5 Teams reusing robots without informing the judges in any way will be subject to deductions.

5.11 Preparations for the stage performance

5.11.1 It is the responsibility of the team to ensure that the music and video/presentation is playing correctly before their first performance by liaising with the RoboCupJunior OnStage officials.

5.11.2 Depending on the configuration of the stage and the sound system at the venue, it is possible that the human starting the robot will not be able to see the RoboCupJunior OnStage official starting the audio source and vice versa. Teams should come prepared for these conditions.

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[2] In previous version this said "All movements or interactions that happen outside the performance area"

5.12   Practice on the Main Stage

5.12.1   The main performance stage is available for teams to practice on. In fairness to all teams who may wish to practice, a booking sheet is used to reserve the stage for a short practice time. Please be respectful of the allocated time.

5.12.2   Every team who practices on the main stage is responsible for cleaning it after use. The stage must be fully cleaned for the next team willing to use it. The team who uses the main stage just before starting the performance judging should clean up at least 10 minutes before the judging starts.

5.13   Content

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

5.13.2   Participants are asked to carefully consider the wording and messages communicated in any aspect of their performance. What seems acceptable to one group may be offensive to friends from a different country or culture.

5.13.3   A team whose routine may be deemed inappropriate to any particular group will be asked to change their performance before being allowed to continue in the competition. Teams who wish to clarify their performance theme or elements of their performance may contact the OnStage League Committee **before** the competition. Failure to remove inappropriate content will result in disciplinary action.

5.14   Safety and Power Considerations

5.14.1   Participants should design their robot(s) to be a size that they can easily carry by themselves. Robots should be of a weight that team members can carry and lift onto the stage with ease.

5.14.2   Robots with flying capabilities, such as drones, must be inside of a safety net or tied to an object that's weight exceeds the drones maximum lifting capacity. The safety rope or net needs to be made of a material that can not be damaged by the drones rotors and needs to prevent the drone from leaving the boundaries of the stage at any time. No free-flying robots are allowed in the venue. Any team planning to use a flying robot **must** consult with the OnStage League Committee **prior** to coming to the competition.

5.14.3   To protect participants and comply with occupational health and safety regulations, routines may not include anything that could be considered a projectile, explosions, smoke, or flame, use of water, or any other hazardous substances (contact the committee through the forum when in doubt).

5.14.4   A team whose routine includes any situation that could be deemed hazardous, including the possibility of damaging the stage, must submit a report outlining the content of their performance to the committee two weeks before the competition. The Committee may also request further explanation and a demonstration of the activity before the stage performance. Teams not conforming to this rule may not be allowed to present their routine.

6   Technical Interview (30% of total score)

6.0.1   The Technical Interview is a live interview between the team and the judges, in which all robots and programming are judged against technical criteria. Creative and innovative technical features chosen by the team will be rewarded with higher scores. Judges are interested in determining students' understanding of the robotic technologies they have used. Teams must show authenticity and originality regarding their robots and performance in this interview.

6.1 Interview procedure

6.1.1 All teams will have up to 20 minutes of technical interview judging during the competition. Which will take place as an in-person meeting with the judges in a separate room at the venue.

6.1.2 Interviews will be judged by at least two RoboCupJunior officials who have also scored the teams poster beforehand.

6.1.3 The Interview Score Sheet is used in the interview judging. It is strongly suggested for teams to read the Technical Interview Score Sheet before the interview to make effective use of the interview.

6.1.4 Teams should have **all** physical robotic systems present at the interview with copies of all their work in a format that can be easily viewed. This includes any programs, CAD/CAM designs, PCB designs, or wiring diagrams. Each team member must be prepared to answer questions about the technical aspects of their involvement in the robot design, construction, and programming.

6.1.5 **Teams must be prepared to conduct a live demonstration proving that all four selected features are fully working.**

6.2 Preparation

6.2.1 Teams are required to submit the software of all their robots together with their technical documentation before the event.

6.2.2 The files may be changed in between their submission and the competition when necessary.

6.2.3 The code is expected to be documented and include comments that explain the basic purpose of its functions/methods.

6.2.4 Teams need to clarify which third party code and/or libraries were used for their performance and why.

6.3 Translator

6.3.1 The Technical Interviews take place in English. If teams require a translator, they should inform the RoboCupJunior OnStage officials prior to the event to allow translators to be organized.

6.3.2 Extra time will not be given for teams with a translator.

6.4 Second technical interview

6.4.1 If the judges consider it necessary, teams may be asked to complete a second technical interview.

7 OnStage Technical Documentation (30% of total score)

7.1 Technical Demonstration Video (15% of total score)

7.1.1 Teams are required to submit a recorded demonstration to showcase the capabilities of their robots. The aim of the technical demonstration is to showcase how well the team integrated their robotics creations into a perfect performance. They should demonstrate and describe the capabilities of their robots such as interaction with humans or with each other using mechanisms, sensor systems, and algorithms that have been developed by the team.

7.1.2 The maximum length of the video is 6 minutes. If it is longer than 6 minutes, it will be cut to that time for judging.

7.1.3 Robots should be presented without their costumes and key features of the technologies used should be visible to the audience.

7.1.4 The team should explain how the capabilities have been developed, the challenges overcome, and the technologies integrated. Teams should also provide examples of solutions to any problems/issues during their project development.

7.1.5 Teams will also be required to outline what they believe are their chosen four features that they wish to be scored on during their OnStage performance (See Section 1, Overview).

7.1.6 Video editing is allowed and should be used to create a technically engaging and informative demonstration of all robots. ³ **Teams must present their video in English, including voice-over and on-screen text, with English subtitles or transcripts recommended for clarity.**

7.1.7 All team members are encouraged to be actively involved in the presentation.

7.1.8 The Technical Demonstration is assessed according to the Technical Demonstration Score Sheet.

7.1.9 The demonstration needs to be recorded and the video file must be uploaded by the deadline set by the OnStage League Committee.

7.2 Technical Description Poster (15% of total score)

7.2.1 Each team is required to submit a Technical Description Poster by the deadline set by the OnStage League Committee, which is before the first performance during the RoboCupJunior competition. The purpose of the poster is to explain the technology used, particularly highlight the four chosen features, as well as to showcase the robots' software and hardware. Posters should be made in an interesting and engaging format, as they will be viewed not only by the judges but also by other teams and visiting members of the public. **Poster content must be presented in English.**

7.2.2 Teams must submit a digital copy of their poster in PDF format ($\leq$ 10 MB).

7.2.3 Areas that are useful to be included in the poster are:

- team name and region

- abstract/summary/performance description

- annotated pictures

- system diagrams of the systems and robot(s) under development at various stages

- interconnection of robots (examples could include: network connection diagram, exploded views of robots, . . .)

- flowchart of performance (Robot A triggers Robot B, Robot B communicates to Robot C)

- an explanation of the innovative robot technologies used

- a description of the features that should be judged during the performance

- QR-codes to repositories, videos, or team websites

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³ In previous version this said "Teams may wish to include full English subtitles or transcripts."

8 Judging

8.1 Judging criteria

8.1.1 The judging criteria and allocation of marks are given in the respective score sheets.

8.1.2 Teams must read the Score Sheets carefully so that their robot performance covers as much judging criteria as possible,

8.2 Totaling

8.2.1 The total score of each team is calculated by combining the scores from the team's Technical Interview, the Technical Demonstration, and the OnStage Performance.

8.2.2 If more than one performance is scheduled, the highest of all performance scores will be used.

8.3 Judging panel

8.3.1 The stage performance will be judged by a panel of at least three officials. At least one of these judges is a RoboCupJunior official who has judged the Technical interview and documentation as well.

8.3.2 The judging panel should consist of representatives from each super region and should be selected from a wide range of regions when possible.

9 Feedback

9.0.1 RoboCupJunior is an educational project. It is important that team members learn from their experiences with RCJ, so that they have the opportunity to improve.

9.0.2 Feedback and notifications of deductions will be given after the first performance to allow teams to better prepare for the second performance.

9.0.3 A final ranking that includes all teams and their scoring will not be provided to the teams. The teams will get their approximate ranking and their individual scores for their interview, performance, technical demonstration video and poster.

9.0.4 Feedback will not be accepted as evidence to debate positions, decisions, or competition scores with the judges.

10 Code of conduct

10.1 Spirit

10.1.1 It is expected that all participants, students, and mentors, will respect the RoboCupJunior mission, values, and goals.

10.1.2 It is not whether you win or lose, but how much you learn that counts. Choosing not to take this opportunity to collaborate with students and mentors from all over the world means missing out on a lifelong learning experience. Remember this is a unique moment!

10.2   RoboCupJunior Officials

10.2.1   The officials will act within the spirit of the event.

10.2.2   The RoboCupJunior officials shall not have a close relationship with any of the teams in the league they judge.

10.3   Mentors

10.3.1   Each team is required to have a mentor to assist with the communication among the team and facilitate their learning. The mentor receives communications from the committee leading up to and during the competition via the email address used for their registration.

10.3.2   If a problem is encountered that is beyond the team's capabilities and is clearly beyond the reasonable ability level of a student to repair, mentors may request assistance from the OnStage League Committee, including supervised support to conduct repairs.

10.3.3   Mentors are not allowed to set up equipment on stage, as this should be the responsibility of team members. Teams should design all robots and any additional equipment to be carried by team members only.

10.3.4   Disciplinary action will be taken should a mentor be found mending, building and/or programming the robot(s), and/or directing choreography. Judges may question the team's originality if this occurs and teams may risk deductions or disqualification.

11   Additional information

11.1   Sharing

11.1.1   It is understood that RoboCupJunior events with rich technological and curricular developments should be shared with other participants.

11.1.2   Sharing information furthers the mission of RoboCupJunior as an educational initiative.

11.2   Rule Clarification

11.2.1   If any rule clarification is needed, please contact the International RoboCupJunior OnStage League Committee, using the Junior Forum (https://junior.forum.robocup.org). Once the inquiry is posted on this forum, OnStage League Committee members will respond as soon as possible.

11.2.2   If necessary, even during a competition, rule clarifications may be made by members of the RoboCupJunior OnStage League Committee.
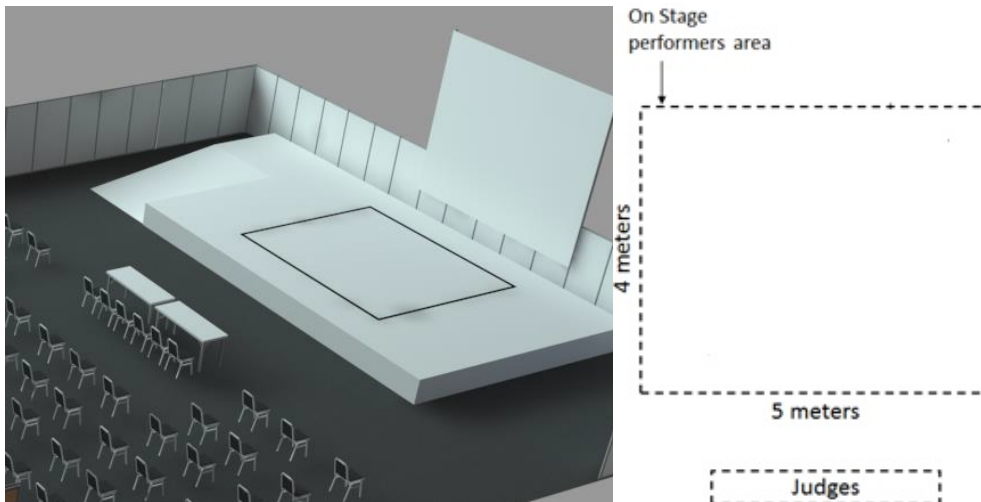
11.3   Information before and during the event

11.3.1   Teams will be responsible for checking for updated information during the event. Methods of communication during the event will be announced to the registered mentors via email before the competition.

11.3.2   Teams are strongly encouraged to check the RoboCupJunior Forum which conveys information about the competition before the competition.

11.4 Special Circumstances

11.4.1 If special circumstances occur, such as unforeseen problems or capabilities of a robot, these rules may be modified by the RoboCupJunior OnStage League Committee Chair in conjunction with available Committee members, if necessary, even during competition.

11.4.2 If any of the team leaders/mentors are not present at the team meetings to discuss the problems and the resulting rule modifications, they consent to the rule modifications and are not permitted to challenge them at a later time.

12   Appendix A

13   Appendix B - Ressources to be released during the season

- Video: How to get started with OnStage

- Explanation: How to create a good technical demonstration video and description poster

- Video: How to create valuable human robot interactions

- Explanation: How to select a good feature

- Word explanation: stage set, scenery, props, music, sound effects

- …?