



MECHATRONICS

CATEGORY

SELECTION STAGE RULES

BAKU 2025

1.Selection stage

- 1.1. After the end of the registration, the selection stage will be held among the teams and the final teams will be determined.
- 1.2. The team must assemble the robot to participate in the mechatronics competition.
- 1.3. The technical requirements of the robot are described in detail in the "Rules of the Final Stage" manual PDF.
- 1.4. The robot must meet all the listed dimensions and requirements.
- 1.5. The first task of the selection stage is to prepare a presentation document about the robot according to the specified criteria . The file can be compiled in any program, but must be sent in PDF format .

Content of the presentation:

- 1.5.1. Information about the team
 - 1.5.2. General information about the robot
 - 1.5.3. If any part is made with 3D printing then 3D graphic image and real photo.
 - 1.5.4. If there is a detail made with CNC then image in the graphic editor and a real photo.
 - 1.5.5. Folder link with 3D model files of the project (CNC laser cutting / 3D printing, "gx" files of the parts to be 3D printed should be submitted.).
 - 1.5.6. In the presentation, the front, back, left, right and top photos of the robot (rover) should be shown in a clear form and each element used should be marked with their designation.
 - 1.5.7. There should be names of all the parts that used and an explanation of what part of the robot (rover) they are connected to.
 - 1.5.8. A simple wiring diagram.
- 1.6. The second task of the selection stage is the preparation of a video presentation. The video presentation should cover the following topics:
 - 1.6.1. Changes made to the robot from the initial development stage to the final version should be shown in sequence. That means the chronology of the work done.
 - 1.6.2. The members of the team should take turns to talk briefly about the criteria mentioned above.
 - 1.6.3. Driving the finished robot should be demonstrated within 1 minute: Go back and forth and turn left and right. Overcoming obstacles. it is important to show the person controlling the robot in the video
 - 1.6.4. Technical requirements of the video:
 - **1-2 minutes and should be edited keeping only the main points. Non-speaking parts can be sped up and have a melody added (optional).**
 - The video must be uploaded to the "YouTube" platform and the quality must be at least **720p**.
 - In the description of the video, it should be noted that it is about joining the STEAM Azerbaijan Festival 2024.
 - 1.7. Files for the competition can be submitted only once. For any changes, it is necessary to contact the coordinators of the category and inform them. Otherwise, the first sent file will be taken as the main one.
 - 1.8. If a PDF or Video Presentation with duplicate content from different teams is found to be submitted (plagiarism/copying), the first submitted files will be considered as original. The second submissions will not be accepted.
 - 1.9. **Also, a submission will not be considered at all if:**
 - 1.9.1. Each of the technical requirements in the Robot "Rules of the Final Stage " manual PDF which one does not respond to.
 - 1.9.2. If the content of the PDF presentation is incomplete. That is, if any part of the subsections of section

1.4 is completely missing.

1.9.3. If any of the topics that should be covered in the video presentation are completely missing.

1.9.4. If the video presentation does not meet the technical requirements.

2.Evaluation criteria for the selection stage

The judges will evaluate the teams according to the following criteria. Once the evaluation is complete, the scores will be final and will not be changed.

Criteria	Possible points
Team Spirit (Based on Video Presentation) (Did all members actively participate?)	1-10
Video presentation should be expressive and interesting	1-10
The video presentation should be comprehensive and informative 1-10	1-10
Completeness and detail of the presentation document	1-10
Functionality level of the robot	1-10
Effective engineering solutions	1-10
Attractive body design	1-10
Neat assembly of wires	1-10
Clarity of explaining the logic of the robot's operation	1-10
Correctness of names of details	1-10
Maximum points that can be collected: 100	