



**BOAT RACING**

Azerbaijan Boat Challenge 2025

*Race. Win. Repeat.*

# RULES

## BOAT RACING 2025

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# Introduction

The “Boat Racing” category encourages youth and technology enthusiasts to explore and apply their STEAM knowledge, experiment with artificial intelligence, investigate the operating principles of future technologies, and enhance their engineering skills and independent thinking abilities.

The primary objective of applying this technology within the maritime domain is to contribute to the preservation of natural resources and the strengthening of national security. A significant portion of recent academic and industrial research has focused on the development of unmanned surface vehicles (USVs) for maritime operations, due to their potential to reduce both costs and risks. In line with this need, our goal is to play a leading role in the advancement of this field by promoting the widespread adoption of remotely controlled or autonomously operated USVs within the country.

## 1.Participation Requirements

- 1.1. Each team must consist of one team leader who is over the age of 18 and exactly three participants between the ages of 13 and 17. Each participant is allowed to join only one team.
- 1.2. Participating teams are considered to have accepted all conditions outlined in the competition rules, as well as any changes made by the Scientific Committee of the STEAM Azerbaijan Festival.
- 1.3. Team names must not reflect political, religious, military, or conflict-related themes.
- 1.4. When a team's name is announced, they must arrive at the competition area immediately.  
A maximum of 15 seconds will be allowed for this. If the team fails to bring their boat to the competition area within this time frame, they will be considered to have forfeited the match. Any technical intervention with the boat within the competition area is strictly prohibited.

## 2. Participants' Code of Conduct

- 2.1. Participating teams must adhere to the principles of fair competition. They shall not engage in disputes with other participants, use offensive or disrespectful language, engage in physical confrontations or provocative behavior, intentionally damage other teams' projects, or take belongings without permission. In the event of a violation, disciplinary actions will be determined based on the nature and severity of the offense.
- 2.2. Participants must be aware of all safety regulations and must refrain from any behavior that may endanger the safety of their own team or others.
- 2.3. Team leaders and accompanying individuals are strictly prohibited from entering the competition area during the match or interfering in any way. If a team leader or companion provides unofficial assistance to their team or interferes with other teams' performances, the referee has full authority to issue warnings, disqualify the team, and apply appropriate disciplinary measures.
- 2.4. Duplicate registration, false information during registration, misrepresentation of a participant's age, unauthorized substitution of team members, and similar actions are strictly prohibited. If such violations are identified and officially confirmed, the team will be disqualified from the competition.

- 2.5. In the event of force majeure or unforeseen circumstances not covered by the rules, all decisions will be made at the discretion of the organizers.

## 3. Application Procedure

- 3.1 To participate in the competition you must complete the application form.
- 3.2 <https://docs.google.com/forms/d/e/1FAIpQLSenQzlgIROy2IfvbBbwh9oxXrX1ePDKQljRHo0138qDq67UVA/viewform>

## 4. Selection Phase

- 4.1 After the registration process is completed, a selection phase will be conducted among the teams to determine which teams will advance to the final round. The selection process will consist of two stages. In the first stage, participants must submit a technical report of the boat they have developed, in PDF format.

### Structure of the Report:

- Information about the team and team schedule
- Electronics to be used and circuit diagram
- 3D model
- Explanation of the code logic (if a programmable circuit is included)

- 4.2 By the deadline set by the organizers, teams must construct a surface vessel in accordance with the specified dimensions. The team must submit a video that includes the construction process (safety protocols must be followed during construction; if the vessel is pre-built, the team must provide a video explanation of its development process), a waterproofing test of the vessel, and a demonstration of its maneuverability while moving on water. The video must be uploaded to the **YouTube** platform and include information about the project being submitted. The video must not exceed **90 seconds** in length and must be recorded in a minimum resolution of **1080p(FullHD)**. Finalist teams will be determined based on the results of both stages of the selection process.

## 5. Evaluation of the Selection Stage

### 5.1. Evaluation Criteria for the Selection Phase:

Criteria	SCORE
Proper submission format of the report document	10
Propeller design and fabrication	15
Hull construction and design	15
Remote controller design and development	15
<b>Total Score</b>	<b>55</b>

### 5.2. Dimensions: (The longest measurement among the width, length, and height will be considered as the primary reference.)

Criteria	SCORE
Vessel $\leq$ 50 sm	40
50m < Vessel $\leq$ 60 sm	20
60sm < Vessel $\leq$ 75 sm	10
75sm < Vessel < 60 sm (not allowed to compete)	0

### 5.3. Vessel weight:

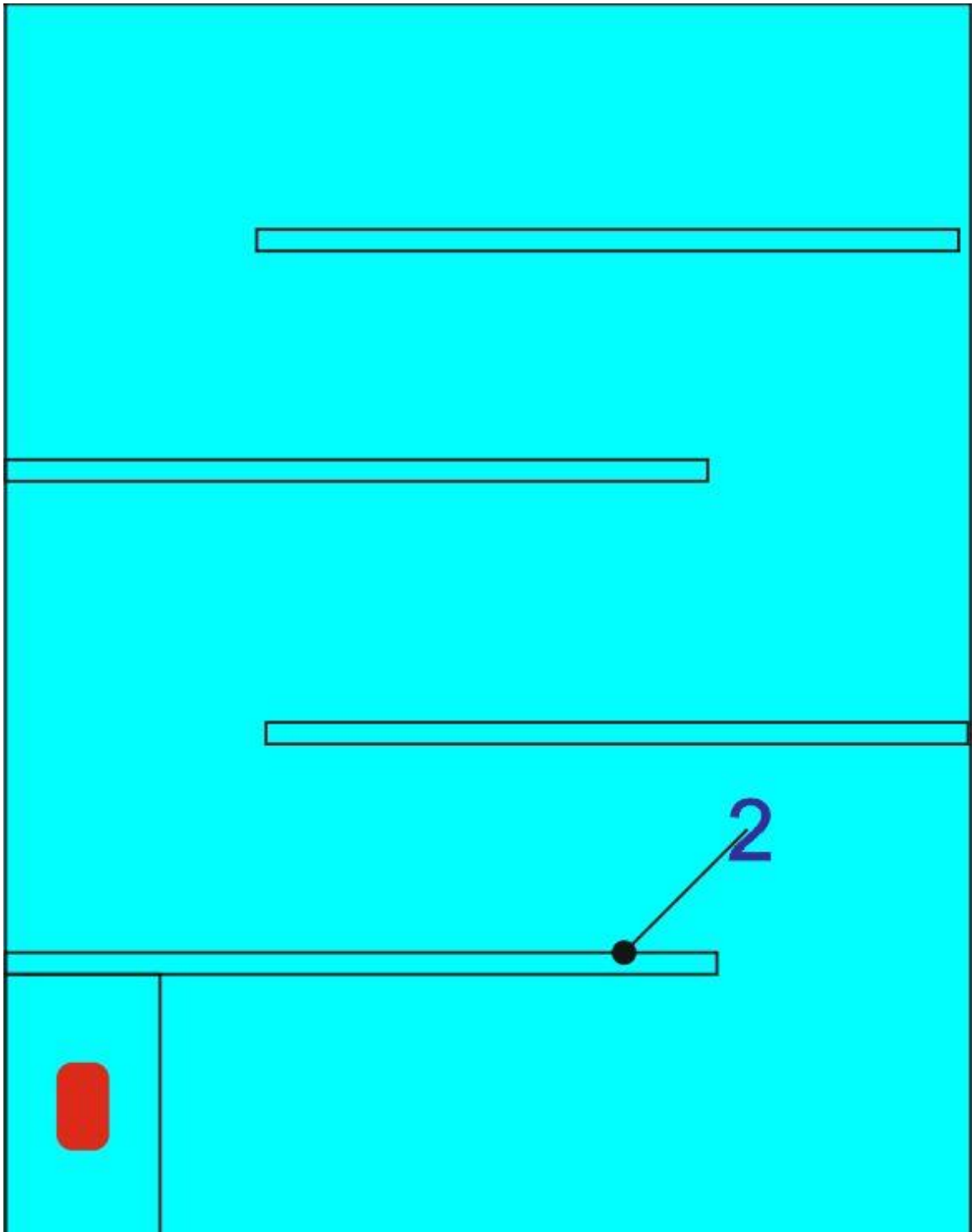
Criteria	SCORE
Vessel weight $\leq$ 8 kg	40
8 kg < Vessel weight $\leq$ 10 kg	20
10 kg < Vessel weight $\leq$ 12 kg	10
12 kg < Vessel weight	0

## 6. Final Phase

- 6.1.** In accordance with the official rules, each team will design, showcase, and compete with their surface vessel. The main objective of the competition is for participants to navigate their vessels using a remote controller, successfully passing through designated obstacles and completing assigned tasks within a limited time..
- 6.2.** Each team will be given five minutes to familiarize themselves with the competition field and test their surface vessel prior to the start of the match.

## 7. The Competition

- 7.1.** During the competition phase, teams will compete in Zone A within a time limit of three minutes. Participants are allowed to move freely within the designated movement area surrounding the competition zone and may choose any suitable position to operate and navigate their surface vessels.
- 7.2.** During the competition phase, each team will navigate their vessel along a predefined trajectory. The race will begin with a "Start" whistle, and teams will have a total of three minutes to complete the course.
- 7.3.** If the vessel makes contact with an obstacle but remains operational and continues moving, it will not be considered a rule violation.
- 7.4.** Participants may choose to stop the race at any point and location before the time limit expires. In such cases, the team whose vessel is furthest along the course will be considered the winner.
- 7.5.** If two or more teams reach the finish line at the same time, the race will be repeated..
- 7.6.** After the race is completed, participants must sign the official results document prepared by the referees.
- 7.7.** Participants must comply with all rules. Upon the first violation, the referee will impose a 10-second penalty. If the violation is repeated multiple times, the referee reserves the right to disqualify the team.
- 7.8.** The competition field is described below.



**Obstacle Element – Pipe:** A 5 cm diameter pipe is positioned horizontally at the water surface level of the pool.

## 8. Evaluation

- 8.1** The scores obtained during the selection phase will only be taken into account in the final stage in the event of a tie.
- 8.2** The team that reaches the finish zone first will be declared the winner. In each match, two teams will compete, and the winning team will advance to the next stage.
- 8.3** The teams selected through a draw will compete according to the scheme outlined below. If a team fails to attend the race for any reason, it will automatically be considered defeated, and the opposing team will be declared the winner.
- 8.4** Teams will start the race at the sound of the "Start" whistle and will compete for a duration of 3 minutes. If neither team reaches the finish zone within the allotted time, the team whose vessel is closest to the finish zone will be declared the winner.
- 8.5** Additionally, two teams will be awarded under the categories of **Jury Award** and **Design Award**

