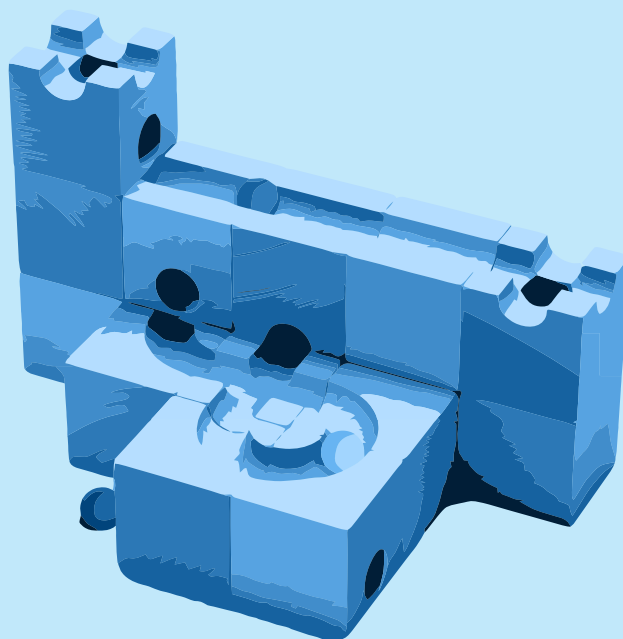




ROLLING MINDS

CATEGORY

FINAL STAGE RULES
BAKU 2025

Introduction

In the “Rolling Minds” category of “SAF25”, participating students will have the opportunity both to showcase and to further develop their skills. With the help of CUBORO cubes, young engineers will use critical thinking, creativity, and problem-solving abilities to first envision and then present practical solutions to given challenges. Participation in this competition serves as an excellent tool to foster students’ creativity and logical reasoning. The goal of the game is to combine or construct cubes in a specific manner. This category helps students develop many essential skills: logical reasoning, problem-solving, patience, three-dimensional thinking, and the core 4Cs (creativity, critical thinking, communication, and collaboration). Moreover, it supports the spirit of research and creativity, enabling participants to recognize 3D models, consolidate their knowledge, and enhance their capacity for strategic thinking.

1. Participation requirements

- 1.1. Each team must consist of **one team leader aged 18 or above** and **two participants aged between 8 and 10**. Each participant may join only **one team** and compete in **only one category**. The same team leader may mentor more than one team within the same category. A team leader (mentor) may also prepare teams for multiple categories of the STEAM Azerbaijan Festival.
- 1.2. A team may apply to **only one category**. If the same team submits applications to multiple categories of SAF25, such applications will be considered **invalid**.
- 1.3. By participating, all teams are deemed to have accepted both the rules set forth in this document and any amendments made by the **SAF25 Scientific Committee**.

2. Notes for participants

- 2.1. Participating teams must adhere to the spirit of fair competition, avoid arguments or insults towards others, refrain from physical confrontation, provocation, or causing damage to other teams’ projects, and must not take others’ belongings without permission. Penalties for non-compliance will correspond to the severity of the misconduct within the arena.
- 2.2. Participating teams must remain mindful of safety and must not engage in any behavior that threatens the safety of their own team or that of other participants.
- 2.3. During the competition, team leaders and accompanying persons are not allowed to enter the competition area or interfere in any way with the game from outside. If a team leader or an accompanying person provides any form of support to their team or interferes with other teams’ games, the referee reserves the right to issue a warning, disqualify the team, or impose other penalties.

- 2.4.** Each participant is limited to competing in one category. Duplicate registrations, false registrations, falsification of a participant's age, unauthorized substitution of team members, and similar actions are strictly prohibited. If such cases are identified and confirmed, the participant will be disqualified.
- 2.5.** In the event of unforeseen circumstances not covered by the rules, decisions will be made by the coordinators.

3. Application Procedure

- 3.1.** Applications will be accepted through the official SAF website:
<https://saf.steam.edu.az/en>

4. Final Stage

4.1. General Information

The final round will consist of three stages as follows:

- Tricky Ways
- Collaboration Game
 - Map Masters
 - Step by Step to the Top

4.2. Stage I – Tricky Ways

4.2.1. Conditions of the Final Stage

The objective is to create new and as long as possible routes for the ball's movement each time. The longer the route, the more points can be scored. This stage is a simple game in which the balls move along the surface paths of the cubes, requiring students to apply their logical thinking skills.

4.2.2. Game Rules

Each game table contains 4 differently colored pegs and 12 colored glass marbles (8 blue, 4 red). Each team is given 1 peg and 3 marbles (2 blue, 1 red). The first player to start is determined by drawing lots. On the field, a blue marble allows for 3 moves, while a red marble allows for 4 moves.

Each team may make 3 turns during the game, and in each turn, the player may use combinations of moves corresponding to the color of the marble to make changes on the cubes. Each move must be completed within **1 minute**. The types of moves that can be performed on the cubes are as follows:

- **Shifting** – a cube may be shifted into the empty field(without rotating).
- **Rotation** – rotating a cube around its center of gravity along its surface on its current field position
- **Jumping** – moving a cube from one square to another empty square

Participants are free to choose combinations of these moves on the cubes. For example:

- For a blue marble: 2 slides + 1 rotation; 1 rotation + 1 slide + 1 shift; 3 rotations; 3 slides, etc.
- For a red marble: 3 slides + 1 rotation; 2 rotations + 1 slide + 1 shift; 2 rotations + 2 slides; 4 slides, etc.

The game board consists of 8 cubes and 1 tower. The tower cube is placed on the field at the start of the game and removed by the referee after each turn.

4.2.3. Game Progress

The first player builds their path by performing the allowed moves specified in the rules. A marble is released from the tower and travels along the prepared path to the final point. At the end, the team earns as many points as the number of cubes (including the tower) that the marble passed over. The player's chip is then moved across the map according to the number of points earned.

Each final hole (destination point) can contain only one marble. If a player's marble lands in a hole that already contains another marble, the attempt is counted as zero. Only when the marble passes over all 9 cubes does the player score 10 points.

The game continues until the participant runs out of marbles. Marbles are moved along the **surface** of the cubes, not inside them.

Note: If a marble stops along the trajectory due to insufficient speed, the referee will push it forward to direct it to the final point.

Note: A participant may touch the cubes only during their own turn and only as many times as the number of allowed moves (3 touches for a blue marble, 4 touches for a red marble). Testing moves, making extra changes beyond the allowed number, or returning cubes to their previous positions is prohibited.

Note: A participant may not perform all 3 (or 4) moves of a given combination on the same cube.

Parts	Explanation
Red Marble	4 moves on the cubes in the field
Blue Marble	3 moves on the cubes in the field

Tower	The starting point for the marble's initial movement
Peg	Indicates the player's progress on the field according to the points collected

4.2.4. Evaluation

The marble is released from the tower, and the number of cubes it passes over (including the tower) is counted as points. The player's peg is moved across the map according to the number of points earned.	1 point is awarded for each cube crossed by the marble along the completed trajectory.
Each hole (final destination point) may contain only one marble. If a player's marble lands in a hole that already contains another marble, the attempt is scored as 0 points .	0 points are awarded if the marble lands in an already occupied hole.
If the marble passes over all 9 cubes, this equals 10 points .	10 points are awarded for the longest possible trajectory.

Note: In special cases (e.g., when the main game points of two teams are equal), efficient use of time may be considered as an auxiliary evaluation criterion.

4.3. Cooperation Game: Map Masters

4.3.1. Rules of the "Map Masters" Stage

Participants, divided into teams, must build Cuboro constructions on a 5x5 grid within 40 minutes, based on the maps of two prepared models. The maps indicate:

- The starting and ending points of the ball,
- The number of cubes placed in each square.

Both teams must fully assemble the two models using only **one Cuboro Standard 50 set**. Teams need to share the available Cuboro cubes effectively to ensure the complete construction of both models. Teamwork is crucial for the proper allocation of resources.

This stage requires participants to apply skills in **strategic planning, engineering thinking, and teamwork**. The points scored in this stage are added equally to the accounts of both teams.

For example, if Teams A and B jointly achieve 37 points, after the referee's calculation, 37 points will be added to the score of each team. This is one of the key principles of the friendship game.

4.3.2. Evaluation

Accuracy	Complete correspondence of the models to the map	5 points
Functionality	The ball's unobstructed movement from the starting point to the endpoint, with smooth completion of the run. <i>*If the ball completes the run smoothly in only one of the two models, 5 points are awarded; if it completes smoothly in both models, the maximum of 10 points is awarded.</i>	10 points
Number of Active Cubes	Optimal use of the provided cubes. Points are awarded for each cube touched. <i>*If the ball touches the same cube twice along the actual trajectory, this will be counted as double points for that cube.</i>	1 point
Time	Full completion of the task within the given time	1 point
	For each unused minute when the task is completed before the given time, additional points will be awarded.	1 point

4.4. Cooperation Game: Step by Step to the Top

4.4.1. Rules of the "Step by Step to the Top" Stage

In this stage, teams must build a model based on maps divided by levels. However, the maps of the levels will be provided in the form of puzzle pieces.

Teams have two main tasks:

1. Combine the puzzle pieces to obtain the complete map of each level.
2. Ensure the model is built level by level according to the map.

Teams must first assemble the map pieces correctly, and then construct the model according to the scheme of the levels. Completing this task requires **accuracy, logical thinking, and teamwork**.

4.4.2. Evaluation

Correct Assembly of the Map	Complete and error-free combination of the puzzle pieces	10 points
Accuracy	Precise and functional construction of the model according to the given map	5 points
Time	Full completion of the task within the given time	1 point
	For each unused minute when the task is completed before the given time	1 point

5. Jury Evaluation

The jury assesses qualities such as **collaboration, perseverance, a fun approach, and accuracy** among teams during the competition. The main focus will be on how teams communicate with each other, support one another while completing tasks, and foster a spirit of cooperation. Additionally, the jury will evaluate how teams demonstrate perseverance in overcoming challenges and achieve positive results by completing tasks accurately and correctly. This evaluation is aimed at promoting **effective collaboration both within and between teams**. Furthermore, attention will be given to the allocation of relevant awards, ensuring that each team strives to achieve the best results in its respective area.