Interesting Construction Rule

Introduction: This is a competition event for preschool players. It examines the team members' structure construction, teamwork, and explores multiple ways to solve problems. In line with the inspection theme of the year, different challenging tasks will be carried out.

Category: Preschool

Rule revision v1-2025.02.27 Added prop placement icon, revised 3.4, E

Rule revision v1-2024.06.25 Add Supplementary Rule 4.1 Rule revision v1-2024.01.30 Establishment of competition rules

1. Team member requirements

- A. Participating team members must be of preschool age.
- B. Each team has ≤3 team members and 1 adult auxiliary construction personnel.

2. Work requirements

- 2.1 Competition surface
- A. The competition stage is 2.4 meters long, 1.2 meters wide and 0.4 meters high.
- B. The competition drawing is 2 meters long and 0.9 meter wide. The size of the white space inside is 60*150 cm, as shown in the picture.



2.2 Competition equipment requirements

- A. Limited to large particle building block component equipment, including but not limited to LEGO large particle building blocks, such as pipe sets, versatile sets, simple mechanical sets, etc.
- B. Only manual transmission components can be used. Automatic transmission components, sensors and controllers cannot be used. The task must be completed by manual construction and manual transmission.

3. Competition rules

3.1 Challenge theme

This theme challenge project is flood rescue: several trapped people relied on trees for support in the turbulent flood. Because the water flow was too fast, close rescue equipment could not get close. Remote rescue is urgently needed. Please use building blocks to make a common remote rescue in life. equipment to rescue trapped persons and reach a safe area.

3.2 Participation requirements

- A. In this competition, one parent of a team member will be invited to participate in the competition. Before the competition, the parent participating in the team will be given a participation certificate. Please note that this parent is only allowed to be responsible for physical work, maintenance of discipline and cooperation. He cannot help build the work. There will be an independent rest and viewing area at the beginning of the game. You are not allowed to leave the auxiliary rest area after the game starts, otherwise it will affect the results of your own team.
- B. Players are not allowed to leave the playing surface during the game.
- C. Before the start of the competition, the referee will check the equipment of each team. The equipment of each team must be in a state of being in pieces, and no particles related to splicing may be brought into the stage.

3.3 Time requirements

ROBOBOOM ——Interesting Construction

- A. The competition is divided into a construction phase and a challenge phase. The construction phase lasts for 10 minutes in total.
- B. The teams on the field start setting up the timer at the same time. The 10-minute countdown time ends and the participating team members are ready to challenge.
- C. After preparation, listen to the referee's whistle to start the time challenge. All teams enter the 2-minute challenge session. The team that has completed the challenge raises their hands, the assistant referee stops the timer, and the referee confirms that the challenge is successful and records the time.
- D. If the challenge is not completed within 2 minutes or the referee determines that the challenge failed, the team will fail the challenge and will have no score.
- E. Teams will be ranked according to their challenge time, and those with more time remaining will be ranked higher.

3.4 Competition process

- A. During the competition, according to the number of competition stages and group arrangements, teams will compete on stage. Non-competition teams and auxiliary construction personnel will have rest and viewing areas.
- B. If a unit team needs to share a set of equipment, it is allowed, but before the start of the competition, the auxiliary equipment must be led by the participating team members to dismantle the equipment.
- C. Before the game starts, the referee will check the condition of the equipment.
- D. During the competition, if a player maliciously damages other people's works, he will be sentenced to a foul and will have no competition results. For construction works that have been damaged without malicious intent, the referee will give time to repair them based on the situation.
- E. Each team has two rounds of opportunities in the challenge stage. After the first round of challenges, the works will be isolated and waited for the rotation within the group to complete, and then the second round of challenges will be conducted. Take the best score and rank.

3.5 Stage layout



4. Detailed rules

- A. Construction requirements: There is no limit on the size and weight of the structure.
- B. The position of the trapped person is as shown in the picture, the position of the yellow cube. Each "trapped person" is composed of two 2*4 thin plates, two 2*2 blocks, and a 2-hole lock oblique arm connector. "Trapped people" are provided by the organizing committee. The construction example is as shown below. During the live competition, the staff will place it in a fixed position.







C. The team challenge operation area, rescue platform, and the entire area below can all be used, but the base of the work and the body of the team members are not allowed to enter the area above the black line, otherwise it will be considered a challenge failure Teams are only allowed to challenge in the challenge station area.

ROBOBOOM ——Interesting Construction

D. The challenge work must include a rocker, rope, and hook structure to achieve manual control of the lifting and lowering of the hook (there are no restrictions on rope parts and can be used arbitrarily). The shape of the work includes but is not limited to crane structures, tower cranes, cranes, etc., as shown in the example below.





4.1 Supplementary Rules

- A. Each team is limited to one entry, with no size limit.
- B. The design of the work is arbitrary and should include a joystick, rope, and hook structure (the hook cannot be fixed, it must be connected to the rope, the length of the rope is arbitrary, and the rope cannot be assembled in advance).
- C. Within 10 minutes of completion, testing can be conducted in the challenge area. At the same time, the referee will check whether the team's work meets the requirements. If it does not meet the requirements, the team can continue to adjust the work (the adjustment time is included in the 10minute construction period).
- D. When challenging, team members must control the lifting of the boom through a joystick or the lifting of the hook through a joystick, and cannot directly operate the boom with their hands.
- E. The position of the strategic object is fixed. During rescue, the strategic object needs to have a clear distance from the platform (the strategic object needs to be raised). After the strategic object is lifted, the boom can be manually rotated back to the rescue platform.
- F. The base projection of the work cannot cross the line, and the boom can enter beyond the line.
- G. During rescue, the base of the artwork can be manually dragged horizontally on the rescue platform (but cannot be lifted off the table).
- H. After the strategic object arrives at the rescue platform, it can be manually removed and placed on the rescue platform.
- I. The strategy object rescued by illegal operation shall be returned to its initial position by the referee, and the operation shall be repeated without stopping the timer.
- J. When the strategic object deviates or tilts during hoisting, team members can manually place it back to its initial position beyond the line and hoist it again without stopping the timer.