

Approved

Director of TC ED KR

G. Kozhakhmetova

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REGULATION
on the “RoboLand 2017” III International Festival of Robotics

**Karaganda
2017**

1. General Provisions

“RoboLand 2017” III International Festival of Robotics (hereinafter - the Festival) is organized to promote the development of creative activity of students, formation of engineering skills, promotion of educational robotics, exchange of best practices in the area of educational robotics, identifying the strongest robot teams.

1.1. This Regulation defines the order and conditions of the Festival.

1.2. Information about the Festival is placed on its official webpage www.roboland.kz.

2. The main objectives of the Festival

2.1. To identify and support talented students in the area of designing and programming of robots, engineering sciences.

2.2. To provide permanent exhibition and competition platform for schoolchildren and university students, their supervisors.

2.3. To create a platform for exchanging of experience in the educational robotics among schoolchildren, university students, teachers and heads of educational institutions.

2.4. Professional development of teachers in teaching of robotics and engineering sciences through training seminars.

2.5. To increase the number of professional teams in competitive robotics.

2.6. To promote the development of scientific, technical and engineering areas in the educational environment.

3. The Festival organization

3.1. The organizer of the Festival is the Department of Education of Karaganda region.

3.2. The Festival is an open event, in which representatives from different regions of Kazakhstan, as well as foreign ones may participate.

3.3. The program of the Festival includes:

3.3.1. exhibition of robotic products from schools, colleges, universities, companies and other organizations;

3.3.2. demonstration areas for presentations of robotic products from schools, colleges, universities, companies and other organizations;

3.3.3. area for seminars, training courses on various topics related to robotics development for teachers, heads of educational institutions, the methodist of district and city departments of education, schoolchildren, university students, parents of students.

3.4. The festival agenda contains robotics contests among schoolchildren, college students, educational centers.

4. Contests organization

Rules of the contests are regulated by the order of the contests (see Annex), as well as the following provisions:

4.1. Teams of schoolchildren, college students, representatives of educational centers (Department of Education, DE, centers) are invited to participate in the contests.

4.2. Teams must submit a preliminary application form for participation in the contests.

- 4.3. The number of team members is three, 2 students and 1 trainer.
- 4.4. One trainer can supervise several teams.
- 4.5. One organization may be represented by several teams.
- 4.6. One team (of 2 members) is allowed to participate in one contest category only.
- 4.7. During a contest, each robot shall be represented by a student. A trainer is not allowed to represent a robot.
- 4.8. Each team must have their own two network filters, portable laptop with preinstalled and adjusted software, necessary materials - a robot, a CD with software, supply of necessary parts and components, spare batteries, etc.
- 4.9. Programming language: no restrictions.
- 4.10. Participants' age categories: 11-17.

5. Robotics contests categories

- 5.1. The Festival encompasses the following contests categories in accordance with the age of the participants and / or the grade of study:

CONTESTS CATEGORIES

№	Category name	Level (1 – 5)	junior	5 grade	6 grade	7 grade	8 grade	9 grade	10 grade	11 grade	Students and teachers
			PLATFORM								
1	Mechanical sumo (15x15)	1	-	+ only Lego Mindstor ms	+ only Lego Mindstor ms	-	-	-	-	-	-
2	Line following for beginners (380x240)	1	-	+ only Lego Mindstor ms	+ only Lego Mindstor ms	-	-	-	-	-	-
3	Kegelring	1	-	+ only Lego Mindstor ms	+ only Lego Mindstor ms	-	-	-	-	-	-
4	Intellectual sumo (15x15) - A	2	-	-	-	+ Lego Mindstor ms	+ Lego Mindstor ms	-	-	-	-
5	Intellectual sumo (15x15) - B	2	-	-	-	+ Arduino	+ Arduino	-	-	-	-
6	Line following for intermediates (380x240) -A	2	-	-	-	+ Lego Mindstor ms	+ Lego Mindstor ms	-	-	-	-
7	Line following for intermediates (380x240) -B	2	-	-	-	+ Arduino	+ Arduino	-	-	-	-
8	Kegelring-quadro	2	-	-	-	+ Lego Mindstor ms	+ Lego Mindstor ms	-	-	-	-
9	Kegelring-quadro	2	-	-	-	+ Arduino	+ Arduino	-	-	-	-
10	Kegelring-quadro x 2							+ Any	+ Any	+ Any	
11	Qudcopters contest	2-3	-	-	-	-	-	+ Any	+ Any	+ Any	-
12	Dancing robots contest	3	-	-	-	-	-	+ Anthropo morphic robots	+ Anthropo morphic robots	+ Anthropo morphic robots	-
13	Puzzles	3	-	-	-	-	-	+ Any	+ Any	+ Any	-

27	Drawing competition	All who wish	+	+	+	-	-	-	-	-	-
28	Photo competition	All who wish	+	+	+	-	-	-	-	-	-
29	Crafts competition	All who wish	+	+	+	-	-	-	-	-	-

6. Contests order

6.1. The compulsory stages of the contests are a robots inspection and a contest.

6.2. Contests in the categories of Mechanical Sumo (15x15) Following the line for beginners (380h240), Kegelring, Intelligent Sumo (15x15) Following the line for intermediates (380h240), Kegelring-quadro additionally consist of the preparatory phase and rounds (attempts).

6.2.1. Preparatory phase

6.2.1.1. Operators can adjust their robots only during the assembly and debugging.

6.2.1.2. Time allotted for assembly and debugging shall be one hour, prior to quarantine in the inspection area and the competition start.

6.2.1.3. After the start of assembly time, contestants shall build their robots on specially designated tables, at the same time they may program and test robots (including on the contest sites).

6.2.1.4. Team trainers shall not be allowed to be in the assembly section, and in any way to influence the process of designing and programming a robot.

6.2.1.5. At the end of the assembly time, teams shall place their robots on the inspection tables (quarantine zone). After confirmation of a judge that the robots meet all the requirements, the robots shall be admitted to the contests and are in the area of the inspection until the start of the contests.

6.2.1.6. Teams shall not be allowed to touch details and computers during the inspection time.

6.2.1.7. Shall a robot not comply with the technical regulations, the judge allots 5 minutes for participants to eliminate violations. If the discrepancy is not remedied within the given time, the team shall be eliminated from the competition.

6.2.1.8. After the assembly time is over, the robots may not be modified or replaced, it is forbidden to download programs, change batteries and, etc. The extra time is not allotted.

6.2.2. After the admission of all the participants, the first and second rounds of the contests shall be held.

6.2.3. At the discretion of judges, rounds (attempts) may be held one after the other or after the completion of one round of contests.

6.2.4. In all contest categories, with the exception of “Sumo,” “Kegelring,” “Line following,” assembly stage may be excluded (robots shall be tested by participants and tested for compliance with technical regulations prior to putting them in quarantine)

6.3. Judging

6.3.1. The organizers reserve the right to make adjustments to contest rules, to decide on controversial issues.

6.3.2. Monitoring and summarizing shall be carried out by the panel of judges in accordance with the rules, guided by the contest regulations.

6.3.3. Judges have full authority during all the contests. All participants must follow their decisions.

6.3.4. Shall there be any objections to a decision of a judge, a team has a right to appeal the decision orally in the Organizing Committee before the end of the current round.

6.3.5. A replay may be carried out by judges' decision in the case when a robot was not able to finish a round because of outside interference or when a problem arose because of the poor condition of the playing field, or due to an error made by a panel of judges, but not later than the end of the first round.

6.3.6. Team members and a trainer should not interfere in the actions of a robot of their or opponent's team either physically or remotely. Interference will constitute immediate disqualification.

6.3.7. A judge may decide to terminate a contest, if a robot shall not continue to move for 15 seconds.

6.3.8. The distribution of awards will be determined by the best attempt result.

6.3.9. Teachers of organizations, implementing robotics can be involved for judging.

6.4. Requirements for robots

6.4.1. A robot must be self-contained, that is, remote control of a robot shall not be allowed (with the exception of controlled robots contests, creative category).

6.4.2. The number of motors and sensors of a robot shall not be limited.

6.4.3. It shall not be allowed to use screws, glues, ropes or rubber bands in robot design to fix the parts to each other or any interaction with the playing field (with the exception of controlled robots contests, creative category).

6.4.4. A robot that does not meet the requirements of contest Regulation (see Annex), will not be allowed to participate in contests, or the result of the robot will be nullified.

7. Calendar terms

7.1. The Festival shall be held on April 22-23, 2017. Registration of the application forms on the official website of the Festival www.roboland.kz.

8. Summarizing and rewarding

8.1. Organizer of the Festival forms the prize fund, awards winners of contests with cups and diplomas, awards three organizations, whose teams shall win the largest number of prizes. The team that wins the «Roboland-Kazakhstan» contest shall be marked with a special prize of the Festival.

8.2. Special prizes may be established by partners and sponsors of the Festival.

Agreed _____
Deputy director of TC ED KR

R.Kh.Suleimenov,