Annex to the Regulations for the VI International Festival of Robotics, Programming and Innovation Technologies "RoboLand 2021".

COMPETITION REGULATION
"ROBOCUPJUNIOR RESCUE LINE"

Age of participants: 12-19 years old (at the 1st of July).
Team: 2-5 people.
Robots: autonomous robots.
Used equipment: any design details, including those made by yourself.
Programming language: at the team's discretion.

Preface

The earth is very dangerous, people can't get to the victims. Your team has a difficult task ahead of them. The robot must complete a rescue mission completely offline without any human assistance. The robot must be reliable and intelligent to travel through complex, rugged terrain with hills, bumps, without being stuck. When the robot discovers the victims, it must carefully evacuate them to a safe area where people will already begin to rescue the victims. Once the victims have been evacuated, the robot must find a way out of the danger zone.

The time and technical skills required are assessed.

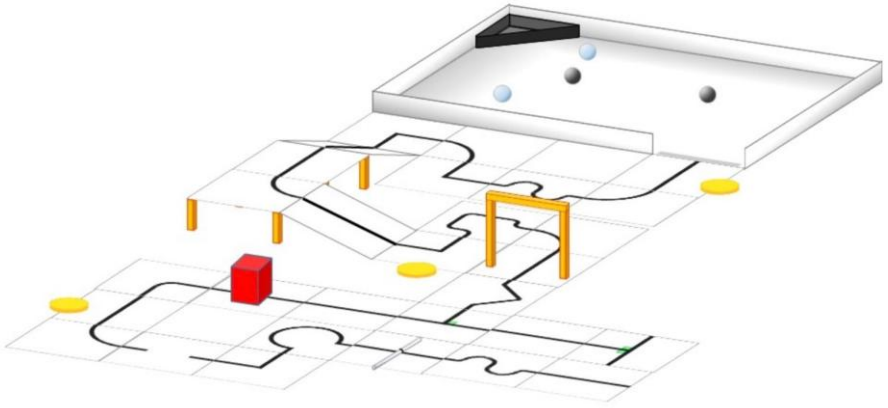


Fig.1. Possible field configuration.

Task description

The autonomous robot must follow the black line, overcoming various obstacles in a modular court consisting of cells with different lines applied to them. The court is covered in white and the cells are at different levels connected by ramps.

Teams cannot give any preliminary information about the range to their robots, as the robot has to recognize it itself. The robot earns scores as follows:

- 15 scores for correctly moving to a cell at an intersection or a dead end;
- 10 scores for crossing an obstacle (bricks, blocks, weights and other large, heavy objects). The robot is expected to move through various obstacles;
- 10 scores for returning to the line after a breakup;
- 5 scores for overcoming a road hump or passing through a ramp.

If the robot is stuck, it can be restarted from the last passed checkpoint. The robot will be

awarded scores for passing new checkpoints. At the end of the line, there will be a rectangular room with walls (evacuation zone). The entrance to the zone will be marked by a silver reflective strip on the floor.

Once inside the evacuation area, the robot must find and evacuate as many alive (reflective silver electrically conductive balls 4-5 cm in diameter) or dead (black electrically non-conductive balls 4-5 cm in diameter) as possible and take them to an evacuation point located in one of the corners of the room. The robot must distinguish between the living victims and the dead and keep the survivors alive in the first place. The robot can earn between 5 and 40 scores for each victim, depending on the level of difficulty and the order of rescue. In an evacuation area, the robot may encounter obstacles/road hump/trash. The robot will not be awarded scores for overcoming these obstacles.

1. Field requirements

1.1. Description

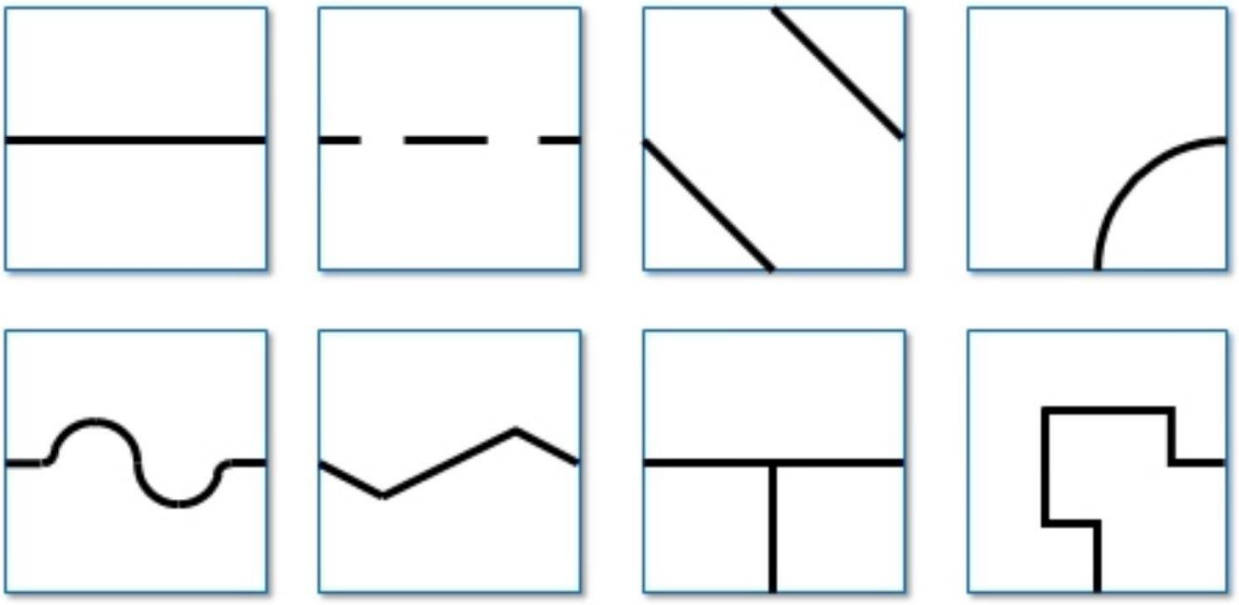
1.1.1 The field consists of modular cells that can be used to create an infinite number of different paths for robots.
1.1.2 The field will consist of 30x30 cm plates with different lines. The final set of cells and their location will not be opened until the day of the competition. During the competition, the cells will be placed on a hard surface of suitable thickness.
1.1.3. There will be at least 8 plates on the competition field.
1.1.4. There are different designs of paths on plates (examples can be found in the section "Line 2.3").

1.2. Court Coating

1.2.1 The coating of the court is white. It may be smooth or textured (e.g. linoleum or carpet) and irregularities up to 3 mm high between cells may occur. There may be irregularities and gaps in the field structure. This is not done intentionally, so the organisers will try to minimise them.
1.2.2 Competitors should be aware that the cells may be mounted on a stand above ground level, which may make it difficult to return to the cell if the robot is off course. There will be no facilities to help the robots that have gone off course and left the cell.
1.2.3 Cells can be used as ramps so that robots can move up and down to different floors. The angle of inclination of the ramp will not exceed 25 degrees from the horizontal.
1.2.4 Robots shall be designed so that they can pass under bridges from other cells. The minimum height between floor and ceiling will be 25 cm.

1.3. Line

1.3.1. A black line, 1-2 cm wide, may be laid with standard electrical insulating tape (tape), printed on paper or other materials. The black line forms a path on the floor. (The markings, in the drawings, are for reference only and competitors must be prepared to duplicate, add or remove some fragments).
1.3.2 Straight black line sections may be dotted, with a straight black line at least 5 cm long before each interval. The length of the gap is not more than 20 cm.
1.3.3 The location of cells and tracks may vary between rounds.
1.3.4. The line shall be no closer than 10 cm from any edge of the playing field.



1.4. Barriers, garbage and obstacles

1.4.1 Barriers ("road hump") of white colour with a maximum height of 1 cm may be placed in the field. If the barrier is placed on the black line, the overlap between the barrier and the black line will be painted black.

1.4.2 Garbage has a maximum height of 3 mm and is not fixed to the surface. Toothpicks, small wooden plugs etc. can be used as garbage.

1.4.3 Garbage may also adjoin walls.

1.4.3 Obstacles may be bricks, blocks and other massive and heavy objects. The height of the obstacle shall not be less than 15 cm.

1.4.4. The obstacle may not occupy more than one cell in the field.

1.4.5. The robot is expected to bypass the obstacles. The robot can move obstacles, however, they can be very heavy or fixed to the floor. Obstacles that have been moved during the attempt remain in place, even if they prevent the robot from proceeding further.

1.5. Intersection and deadlocks

1.5.1 Intersection may be located anywhere on the playing field except in the evacuation zone.

1.5.2 Intersection markers are made of green ribbon and have the size of 25*25 mm, intended for determining the direction of further movement.

1.5.3. If there is no green marker at an intersection, the robot must move straight ahead.

1.5.4. A dead end is when there are two green markers before the intersection (one on each side of the line), in which case the robot must turn 180 degrees.

1.5.5 Field intersections are always perpendicular, but may have 3 or 4 branches.

1.5.6 The intersection markers are placed just before the intersections. The order of the intersections is shown in Figure 3 and Figure 4.

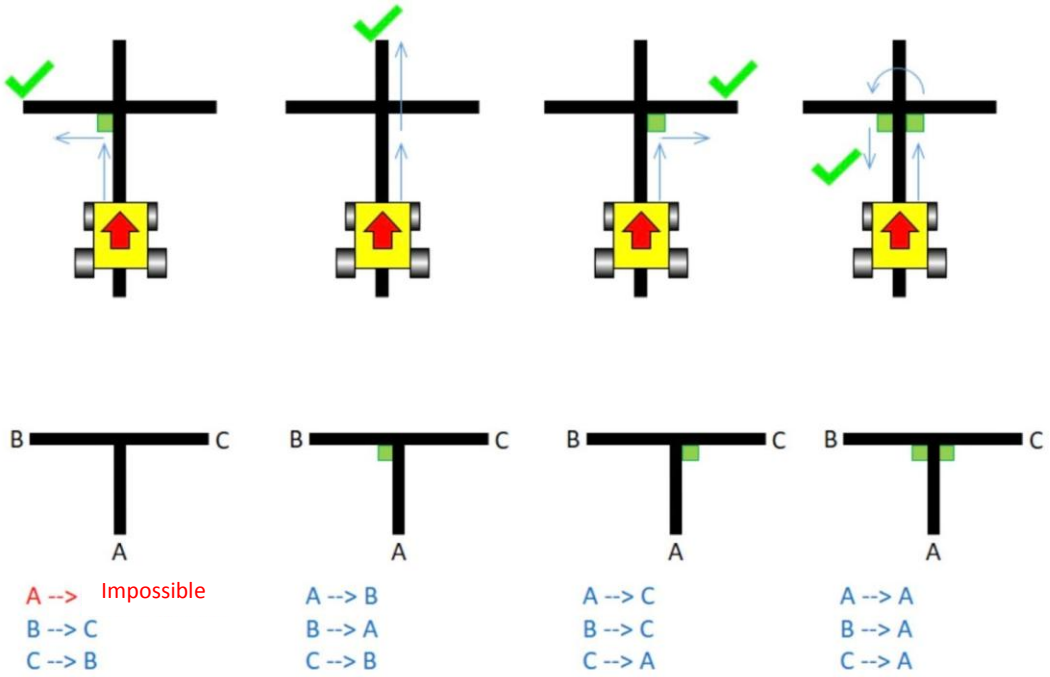


Fig.3. The Order of the Intersections

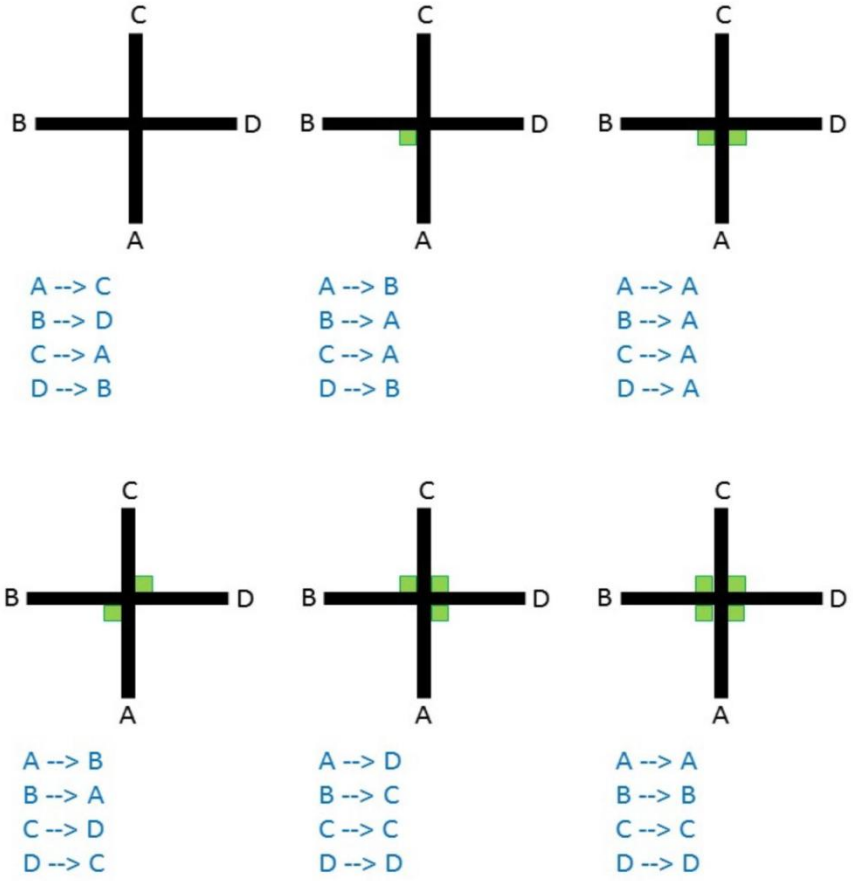


Fig.4. The Order of the Intersections.

1.6. Door Opening

1.6.1 The playing field may have door openings. The width of the door opening is 25 cm and the height 25 cm.
1.6.2 The door opening shall be located in a straight line section.
1.6.3 Door openings shall be fixed to the floor.

1.7. Evacuation Area

1.7.1. The black line ends at the entrance to the evacuation area.
1.7.2 The evacuation area is approximately 120x90 cm in size, surrounded on four sides by walls at least 10 cm high.
1.7.3. There is a silver reflective strip 25 mm wide and 250 mm long at the entrance to the evacuation area on the floor.
1.7.4. Teams may choose between two different points for evacuation, which are rectangular triangles with sides 30x30 cm:

- First level: the evacuation point is a black triangle with a 5 mm high barrier along the side that does not touch the walls.
- Second level: Evacuation point is a black triangle with 6 cm high walls and a hollow centre.

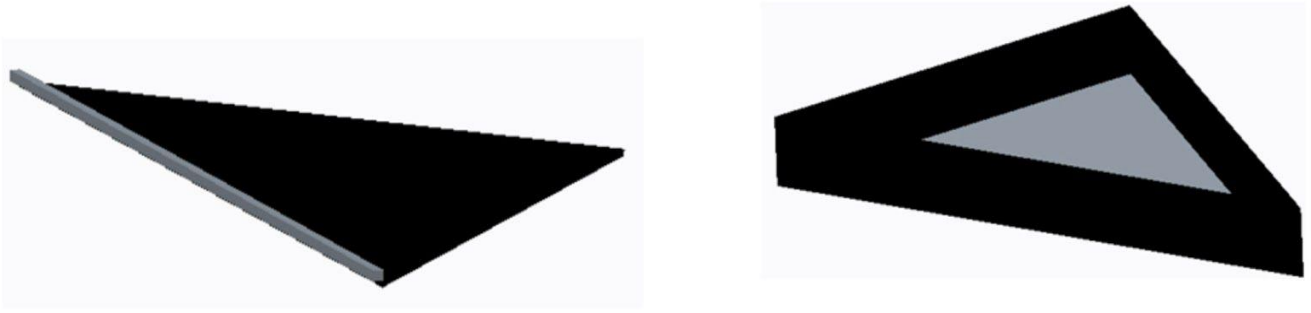


Fig.5. Appearance of the Evacuation Area

1.8. Victims (injured)

1.8.1 Victims may be located anywhere on the floor in the evacuation area.

1.8.2 The victim is the injured person that is a ball with a diameter of 4-5 cm.

1.8.3. There are two types of victims:

- Dead victims are black and non-conductive (dielectric ball).

- Living victims are silver in colour, reflect light and are electrically conductive (e.g. a ball wrapped in foil).

1.9. Environmental conditions

1.9.1 Environmental conditions at the competitions will be different from those of home training. Teams must be prepared to adjust their robots to the environment at the competition site.
1.9.2 Lighting conditions and magnetic fields may differ on the rescue field.
1.9.3 Magnetic fields (e.g. fields generated under the floor by electrical wiring or metal objects) may affect the field. Teams must prepare their robots to ignore such interference. The organisers and referees will do their best to minimise external magnetic interference.
1.9.4 The field may be affected by unexpected interferences from flashes (e.g. a camera flash from a spectator). Teams must prepare their robots to ignore and eliminate such interference. The organisers and referees will do their best to minimise external lighting disturbances.
1.9.5 All measurements in the rules have a tolerance of ± 5%.

2. Requirements for Robots

2.1. Management

2.1.1. Robots must be autonomous. The use of remote control, manual operation or information transfer to the robot (via sensors, cables, wireless networks, etc.) is prohibited.
2.1.2 Robots must be launched manually by the captain of the team.
2.1.3. Any programming of the robot on a predetermined field configuration (programmed movement on predetermined coordinates or objects placed in the field) is prohibited.
2.1.4 Robots must not cause any damage to the court.

2.2. Construction

2.2.1 The robot can be designed from any kits, modules, materials available on the market, but the design and construction of the robot must be the original work of the participants.

2.2.2 Teams are prohibited from using any robot kits or sensor components specifically designed or marketed for any RoboCupJunior Rescue application. Teams that do not comply with these rules will be immediately disqualified from the competition. If competitors are in any doubt, they should consult the technical committee before the competition.

2.2.3 To ensure the safety of competitors and spectators, only lasers of Class 1 and 2 are permitted. This will be checked during quarantine. Teams using lasers shall show a sheet with the sensor specifications.

2.2.4 Only Bluetooth Class 2, 3, and ZigBee types are allowed for wireless communication at RoboCupJunior events. Robots that have other types of wireless connectivity shall remove or disable them to prevent possible interference to other leagues competing in RoboCup. If the robot has equipment for other types of wireless communication, the team must prove that they have been disabled. Robots that do not meet these requirements may be immediately disqualified from the competition.

2.2.5 Robots may be damaged by falling off the field, encountering other robots or elements on the field. The Organising Committee cannot anticipate all possible situations in which damage may occur to the robot. Teams must ensure that all important elements on the robot are adequately protected by strong materials. For example, circuitry must be protected against possible human contact and collisions with other robots and field elements.

2.2.6. When transporting and carrying electric batteries, the use of protective containers is recommended. Every reasonable effort should be made to ensure that robots are free of short circuits and chemical or gas leaks.

2.3. Team

2.3.1 Each team must have only one robot on the field.

2.3.2 Each team shall consist of 2-4 participants.

2.3.3 Each team member has a certain technical role and must be able to explain his work in the team.

2.3.4. A participant can be registered only in one team.

2.3.5 A team can only participate in one league: Rescue Line or Rescue Maze.

2.3.6. International Rescue Leagues are open for students in age from 12 to 19 years old included as at July 01 of the year of the competition.

2.3.7. Team members can participate in Rescue Line (two international events) twice. After their second participation in the Rescue Line they must move to another RoboCupJunior subleague.

2.3.8. Mentors and parents are not allowed to be with participants during the competition. Competitors will have to make their own decisions (without the supervision and assistance of their mentors and assistants) for an extended period of time during the competition.

2.4. Robot Inspection

2.4.1 Robots will be inspected by the referees before the competition and at any other point in the competition to ensure that they meet the requirements described herein.

2.4.2 It is forbidden to use a robot that strongly resembles a robot from any team at current or past events.

2.4.3 It is a team's responsibility to arrange for the re-inspection of its robot if its robot has been altered at any point in the competition.

2.4.4 Students will be asked to explain the work of their robot to ensure that the design and program for the robot is their own work.

2.4.5 Students may be asked about their efforts in preparation.

2.5. Violations

2.5.1 Any irregularities detected during the inspection will prevent the robot from entering the competition until they have been eliminated and the robot has passed the inspection.

2.5.2 Robot modifications must be made within the time allocated in the competition schedule and teams may not delay the start of a competition attempt due to changes made to the robot.

2.5.3 If the robot does not meet all technical requirements (even after the modifications have been made), it will be disqualified for the current round (but not for the competition period).

2.5.4 During the competition, any assistance from mentors is not allowed. (see Cl. 7 of the Code of Conduct).

2.5.5. For violations of the rules, a team may be fined or disqualified for competition or round time, or may lose scores at the discretion of the referees, the Organizing Committee or the Chief Referee.

3. Order of competitions

3.1. Practice Races

3.1.1. Wherever possible, participants will have access to the fields to run training sessions, calibrate, test and configure their robots.

3.1.2 In case a separate field is provided for training races, the possibility to use the competition field for training races is at the discretion of the competition organizers.

3.2. People

3.2.1. Each team must choose one of its participants as captain, and another as its deputy. Only the captains and their deputies have the right to enter the playing and training areas (unless otherwise stated by the referees). Only team captains are allowed to interact with the robot during a race.

3.2.2 The captain may only move the robot with the referee's permission.

3.2.3 Other team members (and other spectators) within the playing area must not approach the court for more than 1.5 m (except for direct instructions from referees).

3.2.4. During a race no one shall intentionally touch the training ground.

3.3. Start of the Race

3.3.1 The race starts at the scheduled time regardless of the teams' readiness and presence. The start time of the race shall be communicated to the participants and placed at the stand near the court.

3.3.2 Before the start of the race, the team shall choose the type of design of the evacuation point (see clause 2.7.4) to be used in the race.

3.3.3. Control point markers are marks intended for people and indicate which cells are control points. The markers are circular in shape with a diameter of up to 70 mm and are from 5 to 12 mm thick. The number of control point markers used in the race depends on the number of cells from which the court is made.

3.3.4. Before the start of the race, the captain of the team shall determine which cells shall be considered control points in this race and shall place markers of control points on them.

3.3.5. Only one checkpoint marker may be placed on one cell. Checkpoint markers shall not be placed on cells containing elements for which the robot is awarded additional points. After the start of the race, the location of control points may not be changed. *Note*: If the robot moves the checkpoint marker during the maneuver, the cell is still considered a checkpoint. The markers are placed only to remind people where the checkpoints are.

3.3.6. The starting cell is the checkpoint where the robot can be restarted. A team may not use one of its checkpoint markers for the starting cell.

3.3.7. After the start of the race and until the end of the race, the robot performing the race shall not leave the competition area.

3.3.8. The time allocated for each team to complete the task (including time for calibration of the robot's sensors, selection of control points and the robot's execution of the races) shall not exceed eight minutes. The time is controlled by the referees.

3.3.9 Calibration means the process of taking readings from the robot's sensors and bringing its control program in line with these readings. During calibration, the robot is not allowed to enter any information about the location of any objects at the court. Any such actions will result in the robot being immediately disqualified from the current round.

3.3.10. From the moment the countdown starts, the team can calibrate its robot at any point of the court as many times as it deems necessary (within the time allotted for the task). The robot must not move

independently during the calibration process.

3.3.11. When the team is ready to start the race, it must notify the referee. To start the race, the robot is placed on the starting cell in the direction indicated by the referee. After the start of the race, no calibration procedures are allowed, nor any change or selection of the control program.

3.3.12. After the robot starts the race, the referee uses the dice to determine the corner of the evacuation zone where the evacuation point will be located.

3.3.13. To prevent teams from entering information about the location of objects on the field immediately before the start of the robot during the calibration phase, the field configuration can be changed: obstacles can be removed, added or modified.

3.3.14. Referees can change some cells in the field or replace them immediately before the launch to prevent teams from entering the location of objects in the field into the robot. This may be based on a secret sample of the referee's task, or in another random way determined by the organisers.

3.3.15. The complexity of the course of a court and the maximum number of points a robot may gain in a race shall be the same for each team in each round at each section of the court.

3.4. Race

3.4.1 The robot starts from the junction of the starting and following cells in the direction of the evacuation zone. The correct location of the robot before the start is checked by a referee.

3.4.2. No modifications to the robot are allowed during the race, including the attachment of parts that have fallen.

3.4.3 All parts of the robot that have fallen off intentionally or unintentionally remain in the range until the end of the race. Neither competitors nor referees may remove robot parts from the range during the race.

3.4.4 It is not permitted for teams to give any additional information about the court to the robot. The robot shall inspect the court autonomously and independently to recognize its elements.

3.4.5 The robot must fully pass the route to enter the zone of evacuation.

3.4.6 The robot is believed to have visited the cell if more than half of the robot hull is in the cell when viewed from above.

3.5. Scoring

3.5.1. The robot is awarded scores for successfully overcoming obstacles (line gaps, barriers, intersections, deadlocks, ramps and obstacles). Interference is considered to have been successfully overcome (hereinafter referred to as "overcome") after the robot independently, without human intervention, passes through the cell on which the obstacle is located.

3.5.2. Failed attempts by the robot to overcome interference at the site are defined as "lack of progress" (see Cl. 4.6).

3.5.3. When the robot reaches the next control point, it shall be awarded scores for each cell it passes after visiting the previous control point (including the cell with the control point reached). The number of points awarded to the robot for each cell depends on the number of attempts the robot has made to reach the next checkpoint. For each passed cell, the robot receives scores:

- **5 scores** if the robot reaches the control point at the first attempt;
- **3 scores** if the robot has reached the control point at the second attempt;
- **1 score** if it reaches the control point at the third attempt;
- **0 scores** if the robot has reached the checkpoint on the fourth or more attempts.

3.5.4. The robot will be awarded

5 scores for each ramp it travels through. The ramp is considered successful if the robot reaches the cell with the ramp and moves autonomously along the line until it reaches the cell following the cell with the ramp.

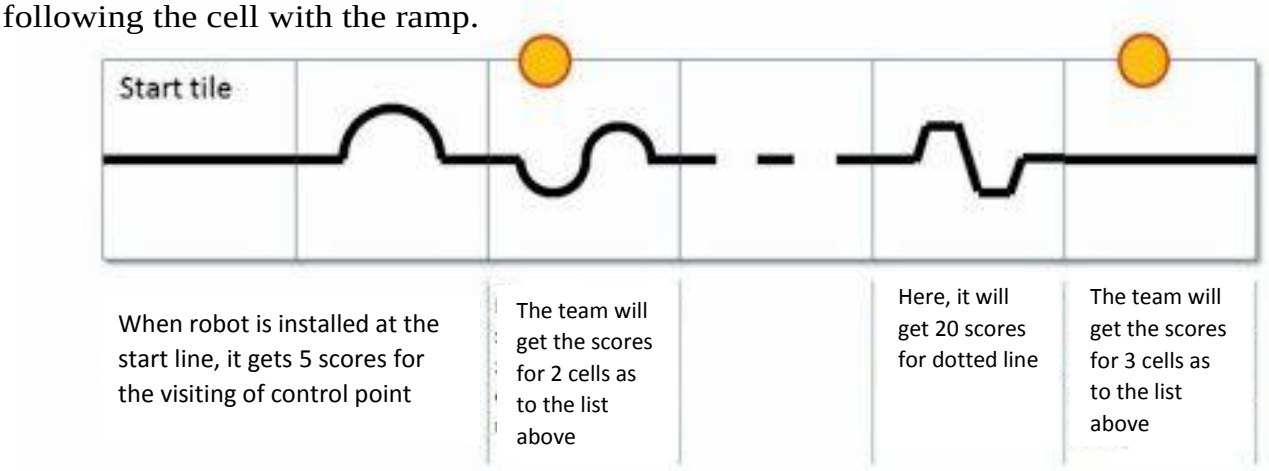


Fig.6. Example of scoring for cell passage.

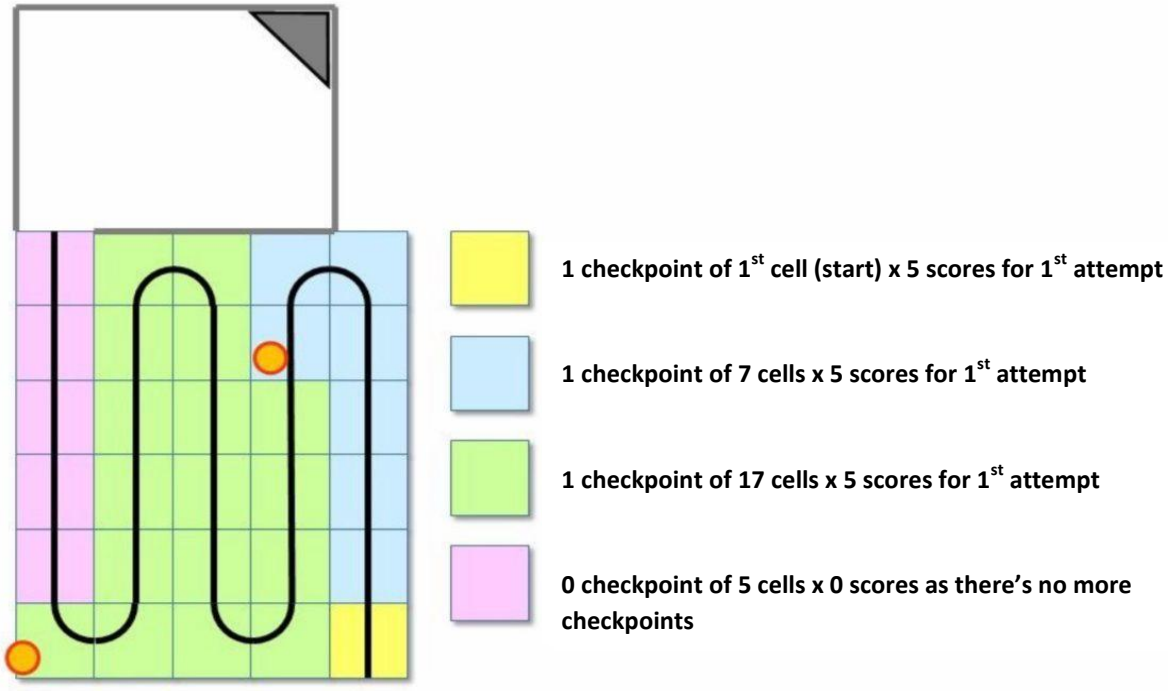


Fig.7. Example of scoring as to checkpoints.

3.5.5 If there are intersections or deadlocks at a court, the path may be in the opposite

direction (returning to the path already passed by the robot).
3.5.6 The robot is awarded **10 scores** for each black line distance covered. The gap is considered to have been successfully overcome if the robot has reached the line following the gap (i.e. when viewing from above you can see that more than half of the robot body is on the line).
3.5.7. The robot is awarded **10 scores** for each obstacle it has overcome. The obstacle is considered to have been successfully overcome if the robot reached the next cell and started to follow the line in the right direction.
3.5.8. The robot is awarded **5 scores** for each obstacle overcome in the right direction ("road hump"). The barrier is considered to have been successfully overcome if the robot can be seen from above when the robot crosses the "road hump" without any part of it touching it. The robot is considered to have crossed the barrier if more than half of the robot body is on road hump. Scores are awarded only for barriers lying on the line. For barriers that are between cells, but where it is possible to extend the line in the imagination, then if the barrier is successfully crossed, scores are awarded.
3.5.9. **15 scores** will be awarded for each intersection passed. The intersection is considered to have been successfully passed if the robot has reached the next cell in turn.
3.5.10. For each completed deadlock **15 scores** are awarded. A deadlock is considered to have been successfully passed if the robot has reached the next cell in turn.
3.5.11. For each interval, obstacle, barrier, intersection and deadlock, no scores are awarded twice when moving in the same direction. No scores are awarded for overcoming an obstacle if the robot did not overcome the obstacle at the first attempt.
3.5.12. The robot is awarded points for successfully saving victims. A victim is considered to have been successfully rescued (hereinafter referred to as "rescued") from the moment that the victim is completely inside the area of evacuation and does not touch any part of the robot. When a referee finds the victim saved, the victim is removed from the area of evacuation to allow more victims to be evacuated. The number of scores awarded to the robot for rescuing each victim depends on the level of the area of evacuation:

- level 1 evacuation point:
  - **30 scores** for each live victim saved;
  - If all survivors have been rescued, **20 scores** will be awarded for each survivor;
  - if NOT all the living victims have been saved, then **5 scores** will be awarded for each saved dead victim;
- level two evacuation point:
  - **40 scores** for every live victim saved;
  - If ALL live victims are saved, **30 scores** will be awarded for each saved victim;
  - if NOT ALL live victims are saved, then **5 scores** will be awarded for each saved dead victim.

The maximum scores (**20 scores** for the first level/**30 scores** for the second level) for rescuing a dead victim will only be awarded if ALL live victims were rescued first. If the deceased victim was evacuated before all the survivors were rescued, **5 scores** will be awarded for the deceased victim.
3.5.13. In the event that the robots of two teams gain the same number of points at the end of the races, in determining the winner takes into account the time spent by teams to complete the task (this time includes time for calibration and selection of control points).
3.5.14. The robot will receive **20 scores** if, after rescuing at least one victim or touching a victim, it completely leaves the zone of evacuation back to the court with the route, finds a line and reaches the third cell from the zone of evacuation (half of the robot body will be on this cell).
3.5.15. If no progress is declared after passing the final checkpoint, **5 scores** will be deducted from the points of each rescued victim (but the scores cannot be negative).
3.5.16. Any obstacles that are in the evacuation zone will not be counted as additional scores.

3.6. Lack of progress

3.6.1 Lack of progress is recognized when:

- the team captain has declared the lack of progress;
- the robot has lost the black line and has not returned to it on the next cell (in the direction of the robot movement) (see Fig. 4.6);
- the robot finds the black line, but NOT in the designated direction of the route

3.6.2. If lack of progress is declared, the robot shall be moved to the previous reference point and face the area of evacuation. The position of the robot shall be verified by a referee.
3.6.3 After the lack of progress is declared, the team may restart the robot (power off and on) and then restart the program. The team is not allowed to change the program, enter any field information into the robot or repair the robot. Teams must inform the referee before arrival of the procedure to be followed if there is no progress; teams must adhere to this method regardless of the situation.

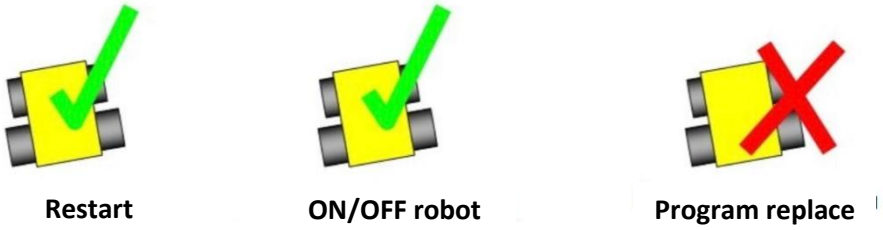


Fig.8. Permitted operations after announcement of no progress

3.6.4 The number of restarts during one run is not limited.
3.6.5 After three unsuccessful attempts to reach the control point, the robot is allowed to move to the next control point.
3.6.6. The team captain may prefer further attempts to pass the section to gain additional points for overcoming obstacles, line breaks, deadlocks, intersections and barriers not yet earned before reaching the checkpoint.
3.6.7. If a lack of progress is declared in the area of evacuation, all victims (including those who have rolled back) will remain in their current positions. The victims held by the robot will be moved to approximately where the robot was when no progress has been declared. If no progress is declared when the robot leaves the evacuation point during the transport of the victims, the victims will be randomly placed in the area of evacuation.

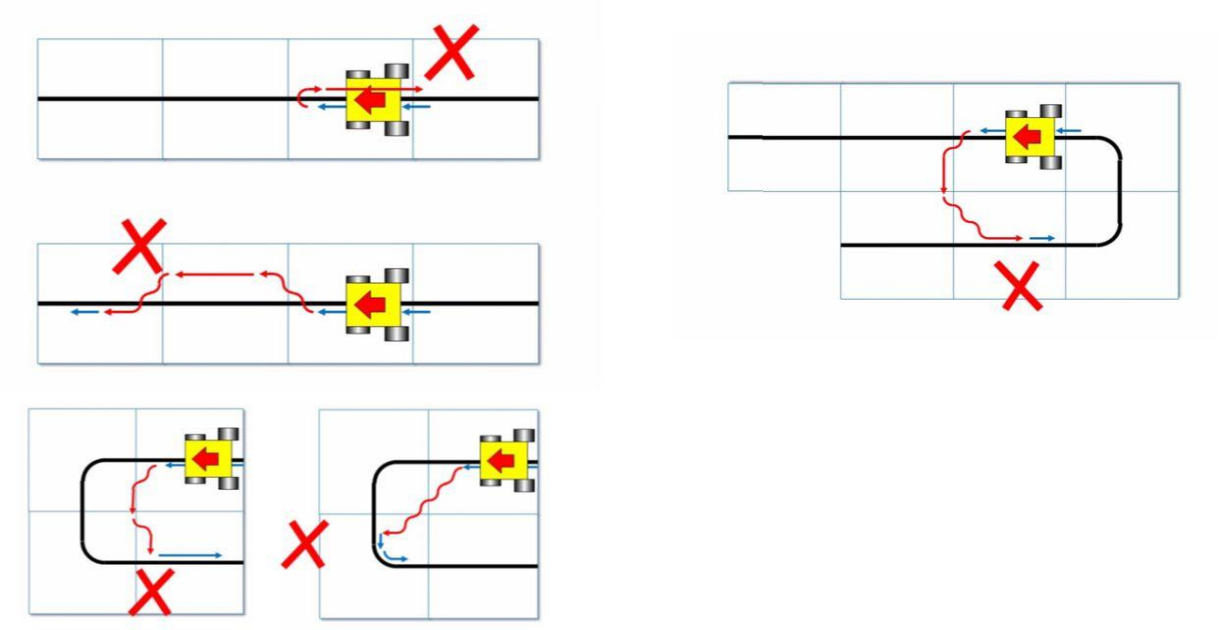


Fig.9. Examples of lost line by the robot.

3.7. Location of victims

3.7.1. In the evacuation zone, the victims will be randomly located. The number of victims will be determined by the organizing committee.

3.8. Evacuation point location

3.8.1. An evacuation point may be located at any corner of the area of evacuation, unless the entrance to the area of evacuation is located at that corner.

3.8.2. After a declaration of lack of progress, the referee may move the point of evacuation to another corner of the zone of evacuation. The new corner is determined randomly (using a dice).

3.8.3. The evacuation point is attached to the surface of the court, but teams should expect little mobility.

3.9. Race finish

3.9.1. The team captain may announce the end of the heats if the team wishes to finish the heats before the time allowed. In this case, the team's robot will be credited with all scores earned by the team at the time of announcing the end of the race.

3.9.2. The race ends in the following cases:

- the time allotted for the race has expired;
- the team captain has announced the end of the race;
- the robot has left the evacuation zone and returned to the line.

4. Conflict resolution

4.1. Referees and assistant referees

4.1.1 All decisions in the course of the game are made by the referees and their assistants, who are in charge of both the court and all objects and people near it.

4.1.2 All decisions made by the referees and/or their assistants are considered final.

4.1.3. After the round is over, the referee asks that the captain of the opposing team sign the score sheet. The captain will be given one minute to review the record and sign the scores. By signing the record, the captain agrees on behalf of the whole team that the scores are recorded correctly. If the team captain does not agree with the points awarded, he will leave a comment on the record and sign it.

4.2. Clarifications of rules

4.2.1. If clarification of these regulations is required, the International Technical Committee of the RoboCupJunior League should be contacted.

4.2.2 In case clarification of the rules is required during the competition, it can be done by the members of the Organizing Committee of the competition.

4.3. Special circumstances

4.3.1. In the event of special circumstances, such as unforeseen robot malfunctions or special opportunities, the rules may be modified by the Chairman of the RoboCupJunior Rescue Organizing Committee when these changes are approved by the competition technical committee, even during the competition.

4.3.2 If a team captain or coach has not participated in the rule change discussion, they are deemed to have accepted the results of that discussion.

5. Code of Honour

5.1. The Spirit of Competition

5.1.1. All competitors, including mentors, are expected to share the goals and ideals of the RoboCupJunior league.

5.1.2 RoboCupJunior's volunteers, referees and competition organisers act in the spirit of the competition to ensure that the competition is high quality, fair and, most importantly, fun.

5.1.3 What matters is not whether you win or not, but how much you learn!

5.2. Fair game

5.2.1. Robots that will damage the range intentionally or repeatedly will be disqualified.

5.2.2 People who will intentionally interfere with the work of robots or damage the court will be removed from the competition.

5.2.3 It is assumed that the goal of all participants is fair play.

5.3. Conduct

5.3.1. Each team should check the latest regulations on the RoboCupJunior website before the competition.

5.3.2 Participants should not forget about other people and robots when moving around the competition site.

5.3.3 Participants are not allowed to enter the setup zones of other leagues or other teams unless team members are invited specifically for this purpose.

5.3.4. The teams themselves are responsible for getting the organizational information (schedule of competitions, meetings, announcements, etc.) in time for the competitions. Up-to-date information will be provided at information desks and (if possible) on the website of the local organizer and/or RoboCupJunior.

5.3.5 Participants who violate the rules of conduct specified in this paragraph may be removed from the competition area and/or disqualified from participation in the competition.

5.3.6 These rules will be applied at the discretion of referees, organisers or law enforcement officials.

5.3.7 Teams should arrive at the event venue in advance and without delay so as not to miss registration, draws, technical inspections, captains and mentors meetings, etc.

5.4. Mentors

5.4.1. Adults (mentors, teachers, parents, interpreters and other adult team members) are

not allowed in the training area.

5.4.2 Adults will be provided with a rest area close to the training area from which they can observe the work of the teams.

5.4.3 Mentors are not allowed to participate in any way directly in the construction, repair or development of the robot software, either during or before the competition.

5.4.4 Any interaction between the team mentor and the robot may be punished by a warning by a referee. Two warnings may be considered as grounds for disqualification of the team.

5.4.5 Robots must fully represent the result of the team members' work. If identical robots are found during competitions, they may be re-examined.

5.5. Etiquette and Honor

5.5.1. Fraud and wilful violations of the rules in any form are unacceptable at the competition, including:

- mentors working on the software, electronic equipment or design of the robot during the competition;
- direct participation of more experienced teams in the creation of robots by less experienced teams, significantly beyond the scope of normal advice.

5.5.2 The event organizers reserve the right to revoke the award from the team if, after the award ceremony, the team becomes aware of and proves fraud on the part of the team.

5.5.3 If it becomes evident that the team manager has interfered in the creation and development of the robot, thus flagrantly violating the code of honor of the competition, he may be exempted from further participation in competitions in the RoboCupJunior league.

5.5.4 Teams that violate the code of honor may be disqualified from competitions. Individual team members may also be disqualified from further participation in RoboCupJunior league competitions.

5.5.5 In case of a minor violation of the honor code by a team, the team may be warned. In case of repeated violation of the code of honor, a team may be immediately disqualified from the competition without a warning.

5.6. Publication of Results

5.6.1. The spirit of RoboCup competitions suggests that all new and original results obtained by teams in preparation for and during the competitions may be published after the competition.

5.6.2 Participants are encouraged to discuss their own and others' projects with each other, promoting a culture of research curiosity and inquisitiveness in technology and science in general.

5.6.3 This is the mission of the RoboCupJunior league as an educational initiative.

Official website RoboCupJunior: http://junior.robocup.org

Official forum RoboCupJunior: https://junior.forum.robocup.org/