



Rescue Line - Technical Challenge

RoboCupJunior Rescue Committee

Contents

Scenario	1
Field	1
Play	2
Start of Game	3
Lack of Progress	3
Scoring	4
End of Game	4

Crossing the Cheongdam Bridge over the Han River

Scenario

You have an attempt to rescue a victim in the rescue zone, but you will need to cross the Cheongdam Bridge over the Han River (you must enter through the opposite lane). There is something you should know: the safe zone had to be moved farther away from the disaster area, so be careful while transporting the victim. It is important that both of you remain safe. However, after the disaster, the exit route became somewhat confusing and the road signs changed a bit. Remember to proceed carefully so you do not take the wrong exit.

Field

Technical Challenge field must contain, at least:

- 1 victim
- 1 intersection

Last updated: 2026-05-26

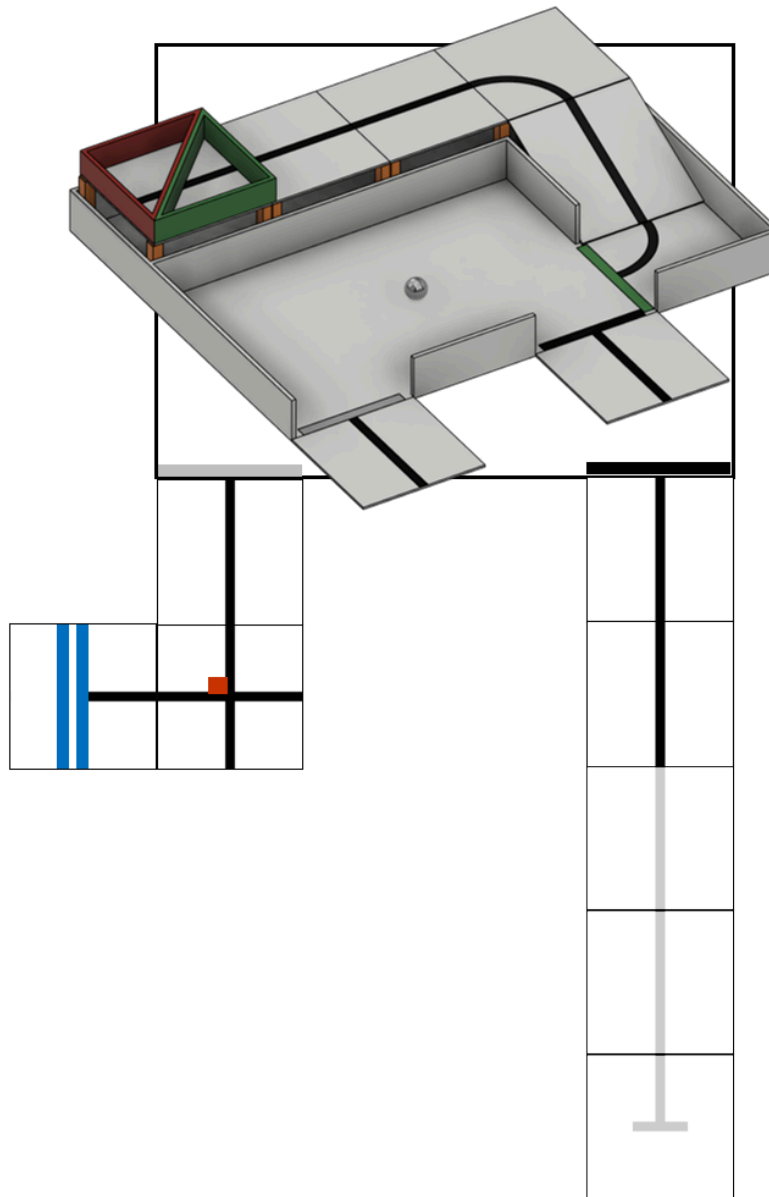


Fig.1 - Example of a Technical Challenge field.

Play

Last updated: 2026-05-26



At one end of the Cheongdam Bridge is the rescue zone. The robot must reach this point, enter, and rescue the victims. Once the robot finishes, it may continue its route by crossing the Cheongdam Bridge again in the opposite direction.

Track Area

The robot will start from the starting tile and must make turns according to the red markers. Intersections function as defined in the Rescue Line 2026 rules, with only the marker color changing.

The end of the route is marked by a blue line, and the robot must stop for 10 seconds.

RESCUE ZONE

To enter the rescue zone, the robot will find a black line indicating the end of the line-following zone and the beginning of the rescue zone.

After reaching the evacuation zone, the robot must rescue a live victim. However, the rescue area for the live victim is located some distance away from the evacuation zone. The robot must climb ramps and navigate dangerous curves in order to place the live victim in the corresponding area. The entrance to the safe zone for taking the victim is marked by a green line. Teams can choose between level 1 and level 2 rescue.

Level 1 rescue means green line, while level 2 means green wall at the top of the evacuation zone.

After placing the live victim in the correct location, the robot must return along the same path and search for the exit, which will be represented by a reflective silver strip.

Start of Game

1. Each team has a maximum of **8 minutes** for a game. The game includes the time for calibration and the scoring run.
2. Robots will start behind the joint of the start tile.

Lack of Progress

A lack of progress occurs when:

1. The team captain declares a lack of progress.

Last updated: 2026-05-26



2. The robot loses the black line without regaining it by the next tile in the sequence.
3. The robot reaches a line that is not in the intended sequence.
4. The robot does not identify the intersections with the red marker (it makes an incorrect turn and does not retrace the line in the correct direction)
5. The robot does not behave as expected by this Technical Challenge when identifying the presence of an obstacle.

If a lack of progress occurs, the robot must be positioned on the start tile facing the path towards the goal tile and checked by the referee.

Scoring

A robot is awarded points for successfully navigating each hazard (intersections/dead ends and obstacles). Points are awarded per hazard when the robot has reached the next tile in sequence.

In addition to following the path as usual,

1. Rescuing the victim awards **level 1 = 100 points, level 2 = 150 points**.
2. Identifying the entrance to the safe zone (green line) to place the victim awards **50 points**.
3. Turning correctly at the red-marked intersections awards **80 points**.
4. Successfully exits the rescue zone, **35 points**.
5. Exit bonus: If the robot stops for 10 seconds in the finish square, identifying the blue line, it scores **45 points**.
6. Each positioning error (LoP) adds a -5 point penalty to the exit score (Number of exit scores - 5 * Number of positioning errors) (minimum 0 points).

End of Game

The game ends when:

1. The robot reaches the goal tile and completely stops for 10 seconds.
2. The **8 minutes** of allowed game time expires.
3. The team captain calls the end of the game.