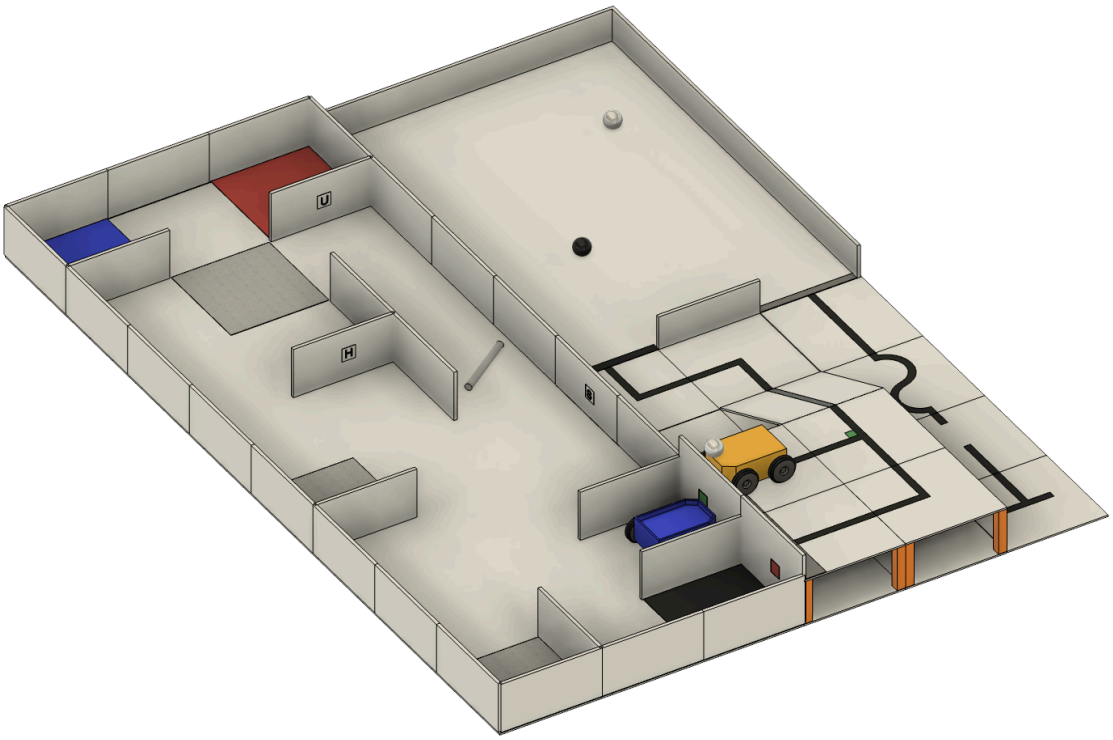
RoboCup2025 Salvador
Junior Rescue League
SuperTeam Competition Rules



In this challenge, the teams from Rescue Line and Rescue Maze will be combined to form a single super team, working together to tackle the challenges.

Teams are expected to engage in thorough communication beforehand, develop strategies, and work collaboratively to solve the challenges. The two robots are required to communicate with each other by some means and cooperate to complete the tasks.

Scenario

After a powerful earthquake shook the city, the streets turned into a maze of rubble and chaos. It’s far too dangerous for humans to enter—so two heroic robots have been sent in to save the day!

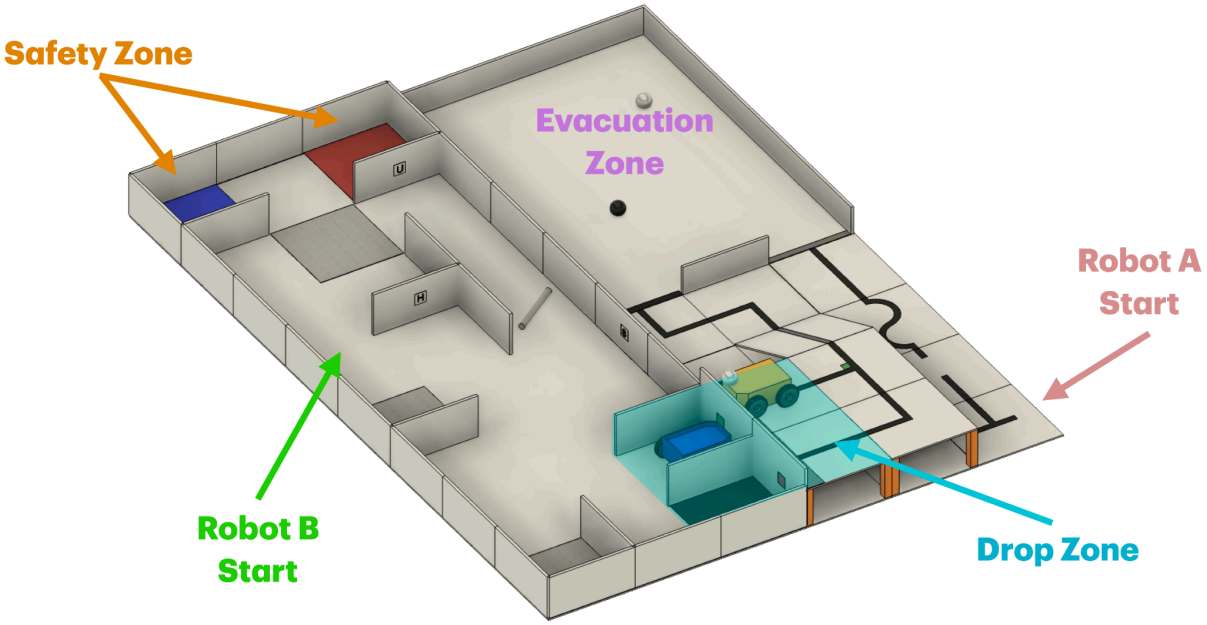
Robot A begins its mission in the Rescue Zone, a dangerous open area at the heart of the disaster site where victims may still be trapped. Carefully scanning the zone, Robot A searches for victims and carries them to the Drop Zone located just outside the danger area.

Waiting at the Drop Zone is Robot B, ready to take over. Once it receives a victim from Robot A, Robot B sets off through the shattered city—navigating the complex, maze-like pathways formed by collapsed buildings and twisted urban structures.

Robot B delivers live victims to the Blue Safety Zone, and dead victims to the Red Safety Zone.

Working as a fearless team, Robot A and Robot B combine their strengths to take on this disaster-zone adventure—rescuing victims, overcoming obstacles, and proving that even in the darkest times, teamwork and technology can shine bright.

Field



Area: Robot A

- Unless otherwise specifically stated later, all standard regulations defined in the **Rescue Line 2025** rules apply in this area.
- The line from the start tile to the Evacuation Zone may include the following hazards.
    - Gaps
    - Speed bumps
    - Debris
- Checkpoint tiles will be placed only between the start tile and the Evacuation Zone.
- Silver tape is placed at the entrance of the Evacuation Zone.
- Inside the Evacuation Zone, there are 2 live victims and 1 dead victim.
- The entrances to the Drop Zone from the Evacuation Zone are marked with black tape.
- The line from the Evacuation Zone to the Drop Zone may include the following hazards.

    - Gaps
    - A ramp
    - Debris
- There is one intersection between the Evacuation Zone and the Drop Zone. This intersection has a special significance: if you follow the instructions indicated by the intersection marker, you will be guided to the green Drop Zone. If you ignore the marker and proceed straight ahead, you will be guided to the red Drop Zone. It is expected that you follow the signals from Robot B and proceed in the correct direction toward the designated Drop Zone.
- There is a wall between Robot A and Robot B in Drop Zones, and the height of this wall is approximately 6 cm when viewed from Robot A's side.
- At the end of the line, a 40 mm wide silver tape is placed along the wall.

Area: Robot B

- Unless otherwise specifically stated later, all standard regulations defined in the **Rescue Maze 2025** rules apply in this area.
- The field may include the following hazards / scoring elements:
    - Checkpoint tiles
    - Speed bumps
    - Black tiles
    - Debris
    - Lettered victims (H, S, U)
- A red or green sticker is placed on the wall of the Drop Zone. (The stickers are reused from the colored victims in the Rescue Maze individual competition.) Please note that there may also be fake Drop Zones marked with stickers of other colors; however, these do not function as valid Drop Zones.
- One of the Drop Zones will always have a black tile placed on it, making it unusable. In other words, there is always only one Drop Zone that can be utilized.
- The black tile blocking the Drop Zone may be shuffled either when Robot B takes a LoP or the Robot B has successfully transported the victim to the Safety Zone.
- The safety zones are represented by red or blue color tiles. These tiles can be placed anywhere on the field.

Start of Game

- Each team has a maximum of **8 minutes** for a game. The game includes the time for calibration and the scoring run.
- Each robot must start simultaneously from its designated start tile. It is not permitted for one robot to start first and the other to start later.

Play

Robot A & Robot B

- If a robot moves a victim outside the Rescue Zone or drops it along the way, the judge will not reposition or remove the victim from the field.

Robot B

- If more than 30 seconds has passed since visiting the Drop Zone, the team has the right to request intervention from the judge. When intervention is requested, the judge will randomly select one victim from within the Evacuation Zone and place it on Robot B.
    - If there are no victims remaining in the Evacuation Zone, intervention can not be carried out.

Scoring

Robot A

- Points are awarded for successfully navigating gaps, speed bumps, ramps, and visiting checkpoints during line tracing, with the conditions for earning these points and the specific scores determined in accordance with the Rescue Line 2025 rules.
- Upon reaching the intersection tile between the Evacuation Zone and the Drop Zone, 20 points will be awarded for each victim being carried at that time.
- When reaching a usable Drop Zone (i.e., one that does not have a black tile on the Robot B side), 30 points will be awarded for each victim being carried.
    - There are three victims, so a maximum of 90 points can be earned from this. However, for each LoP incurred inside or after the Evacuation Zone, 5 points will be deducted from this score. This score cannot go below zero.

Robot B

- Points will be awarded when the scoring conditions for checkpoint tiles and speed bumps are met. The specific scoring conditions and point values are determined in accordance with the Rescue Maze 2025 rules.
- When a lettered victim is found and the conditions specified in the Rescue Maze 2025 rules—such as LED blinking—are met, 10 points will be awarded per victim. There is no difference in scoring between floating tiles and linear tiles. Additionally, no extra points will be awarded for placing rescue kits.
- 30 points are awarded when the robot is completely within the boundaries of a usable Drop Zone tile. This score is awarded only once, regardless of the color of the Drop Zone.
- 20 points will be awarded for each victim being carried when the robot has completely exited the Drop Zone tile after receiving a victim from Robot A.

    - However, this score is awarded only if the victim is received from Robot A without any assistance from the judge. If the team requests intervention by the judge to put the victim, the points will not be awarded.
- Transporting a victim to the Safety Zone and stopping for more than 5 seconds will complete the transfer. 20 points will be awarded for each victim. Additionally, if a live victim (silver) is transported to the blue Safety Zone and a dead victim (black) is transported to the red Safety Zone, an additional 10 points will be awarded for each victim. Once these points are awarded, the judges will remove all the victims that the robot has transported from the robot. To assist with this process, the robot must remain stationary for an additional 5 seconds at that location. **So the robot needs to be stopped for 10 seconds in total.**
    - There are three victims, so a maximum of 90 points can be earned from this. However, for each LoP, 5 points will be deducted from this score. This score cannot go below zero.
    - The additional 10 points awarded for delivering a live victim (silver) to the blue Safety Zone or a dead victim (black) to the red Safety Zone **will not be awarded** if the victim was placed on Robot B as a result of judge intervention (i.e., when more than one minute has passed since the team visited the Drop Zone and requested assistance).

Lack of Progress

- LoPs (Lack of Progress) are declared based on the conditions defined in the respective **Rescue Line 2025** and **Rescue Maze 2025** rules.
- If a Lack of Progress (LoP) is declared, the robot can be restarted from the checkpoint it most recently reached.
- If the robot was holding a victim, the victim will remain with the robot. Under no circumstances are team members allowed to manually alter the robot's arm or any other parts. Additionally, if the robot drops a ball after a LoP due to improper handling by a team member, **it is not permitted to manually place the ball back onto the robot**.

Ranking

1. The final score for the Super Team is calculated by adding together the scores earned by Robot A and Robot B.
2. The number of LoPs (Lack of Progress) for the Super Team is the total sum of the LoPs incurred by both Robot A and Robot B.
3. The game time is recorded at the moment when both Robot A and Robot B declare the end of the game, or when the judge confirms that Robot B has successfully transported all victims to the Safety Zone.
4. Although two rounds will be played on different field designs, only the better result (higher total score) will be used for the final ranking. The two fields are designed to have similar or identical maximum possible scores.
5. The ranking is determined as follows:

a. **Total Score**: Teams are ranked primarily based on their total score as a Super Team.
b. **Fewest LoPs**: If two or more teams have the same total score, the team with the fewer total number of LoPs (Lack of Progress) will be ranked higher.
c. **Shortest Game Time**: If teams are still tied after considering LoPs, the team with the shorter recorded game time will be ranked higher.