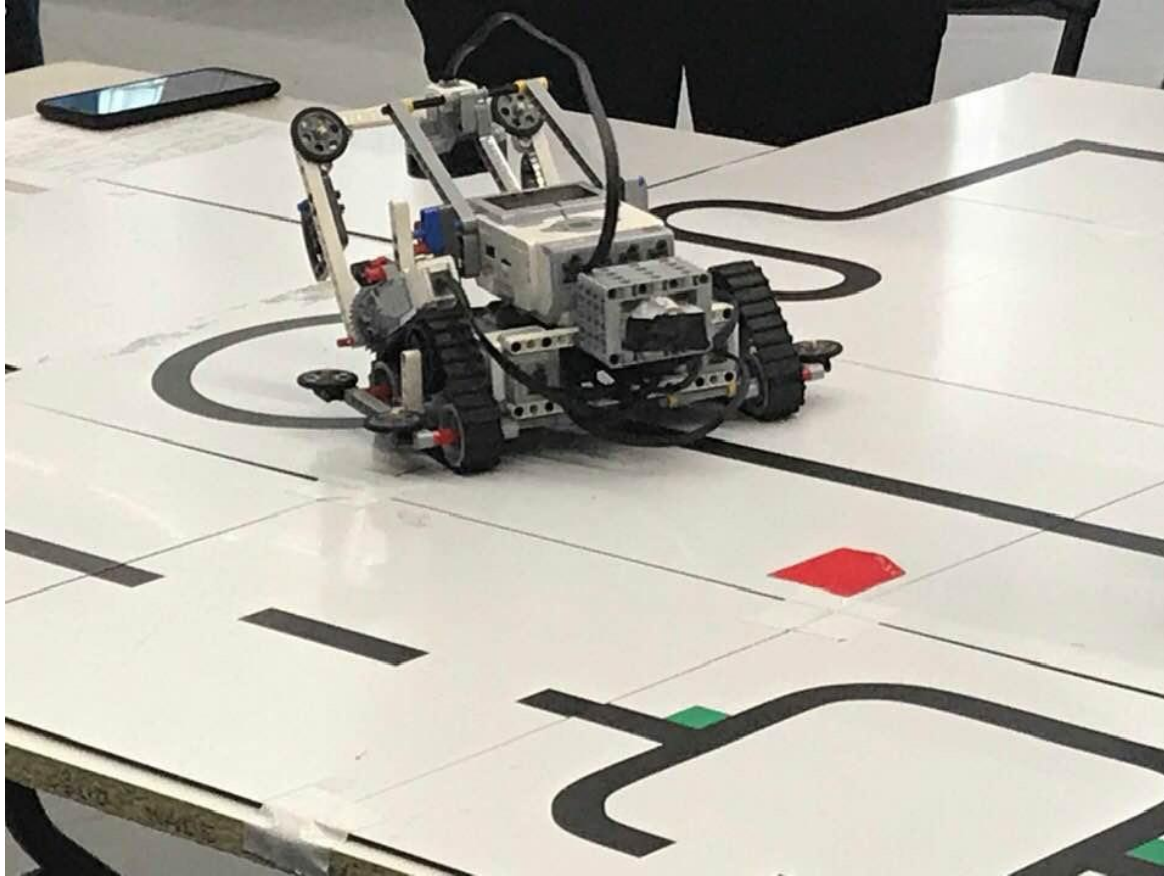


# Rule Summary

## Rescue Line Challenge





Each Field has two parts:

1) Line Follow Zone

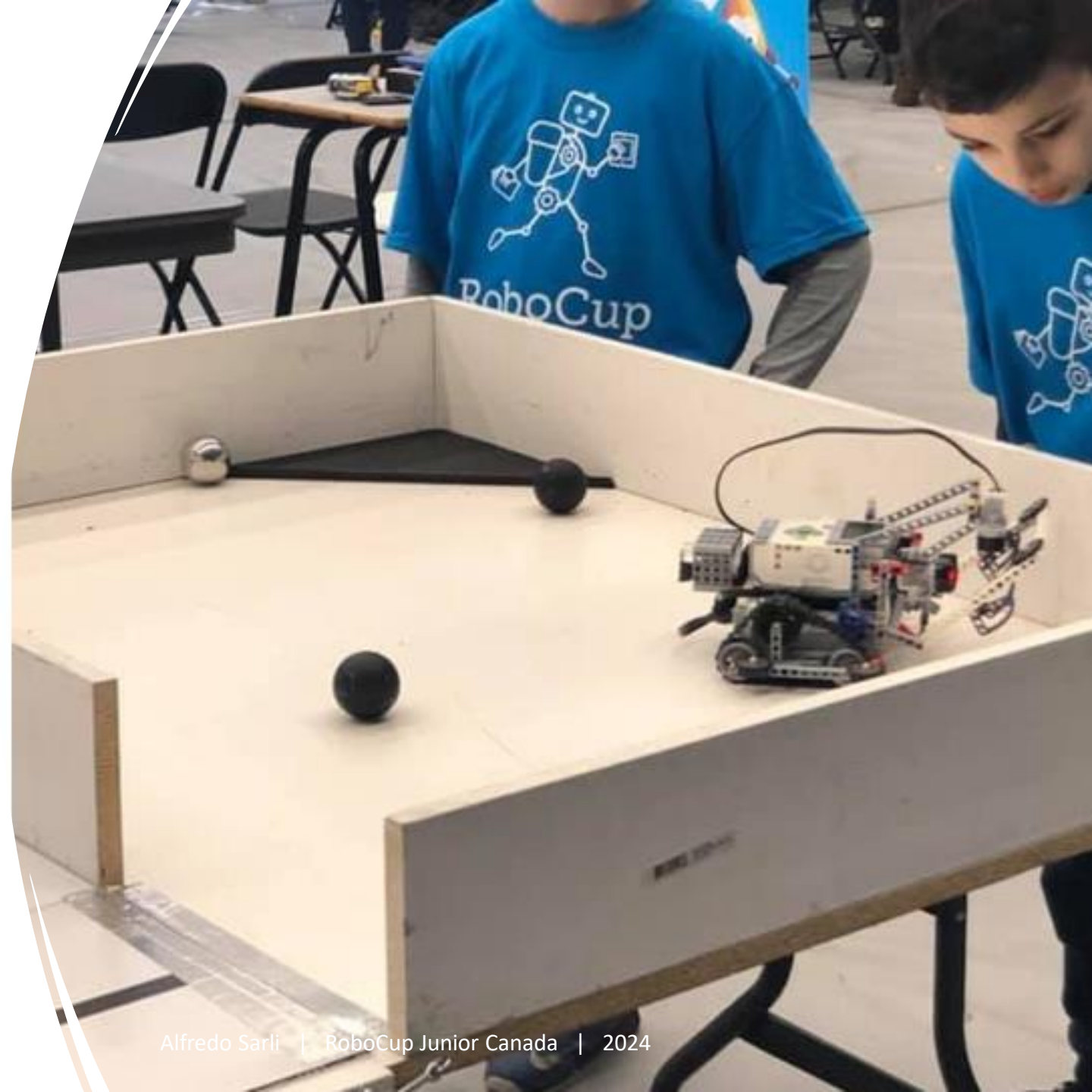
2) Evacuation Zone



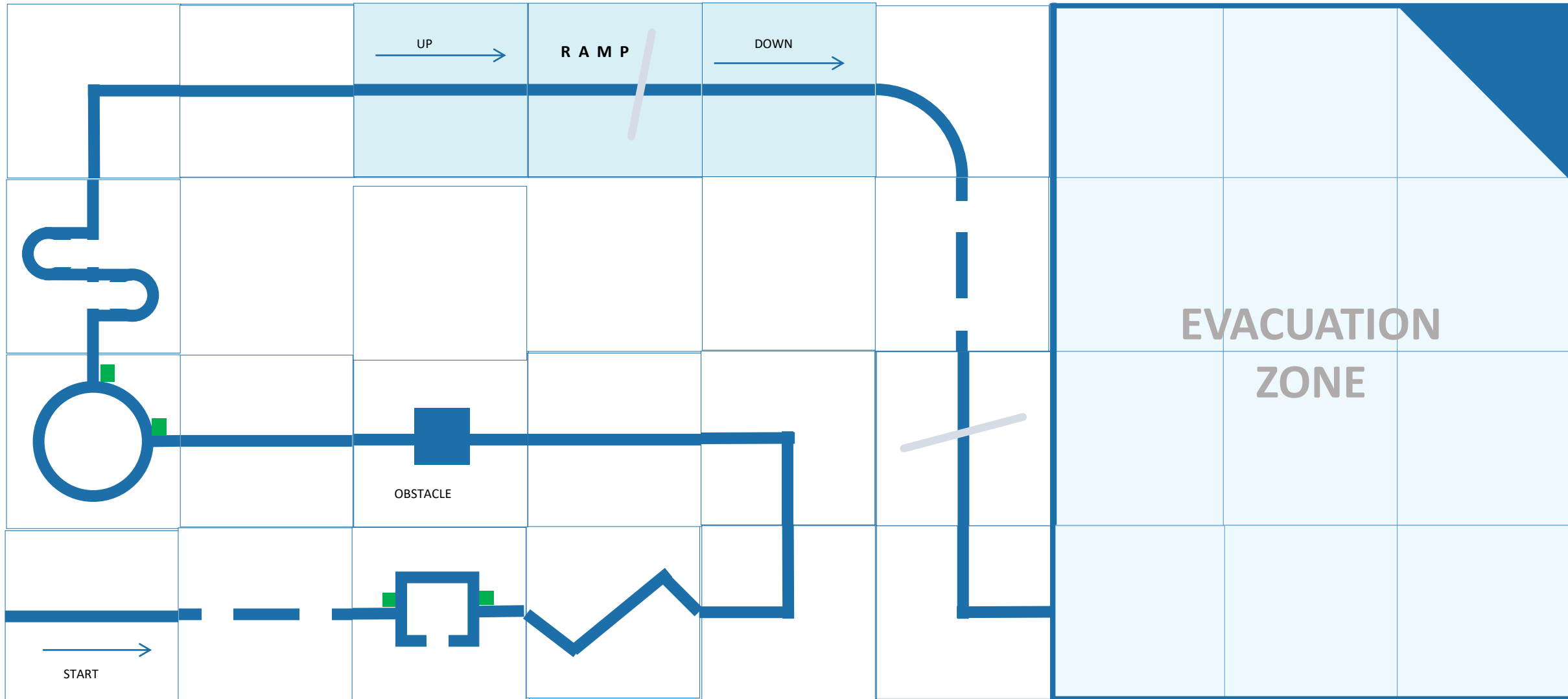
# Evacuation Zone

The Evacuation Zone represents a war zone or natural disaster site in which victims need to be rescued by the robot by bringing them into the Evacuation Point (black triangle):

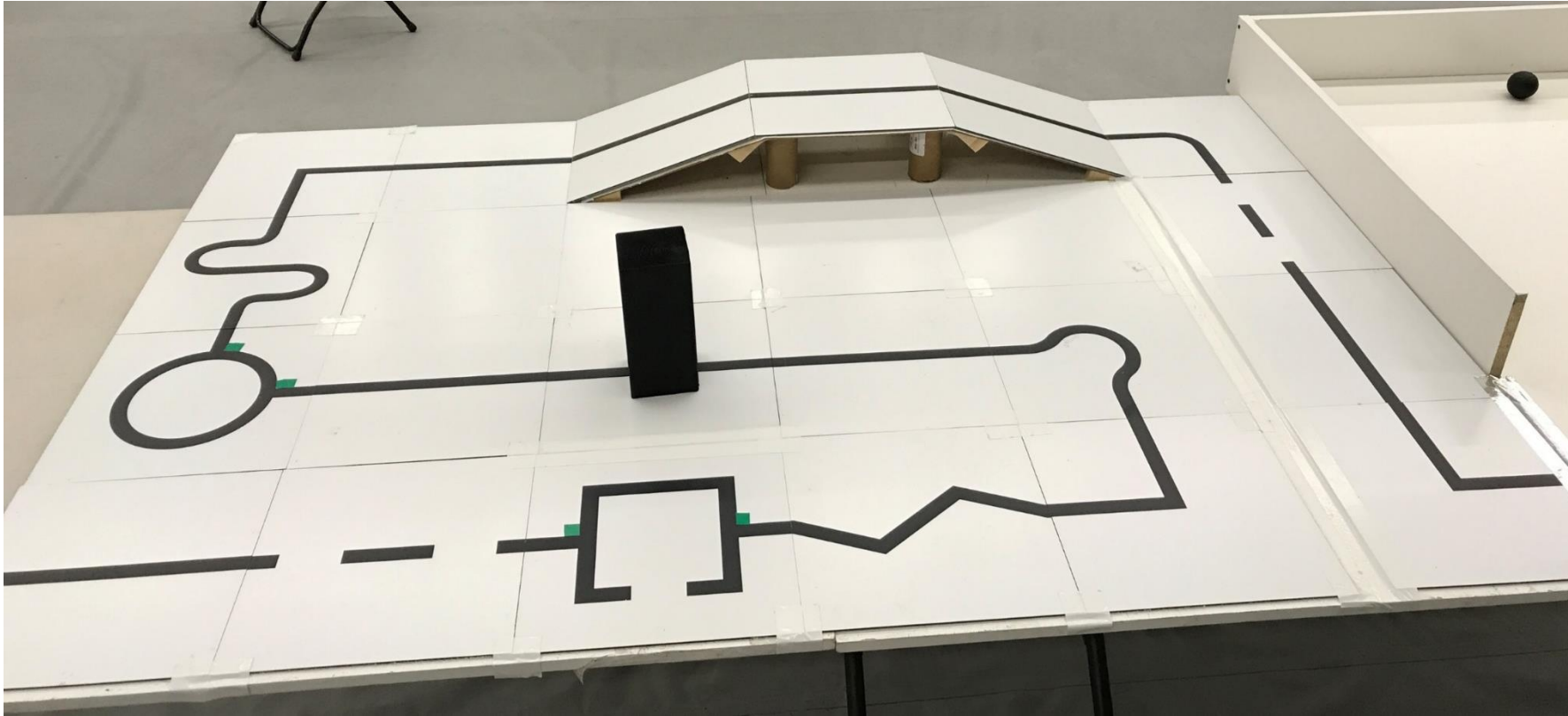
- Live victims (silver spheres)
- Dead victims (black spheres)



# Sample Rescue Line Field



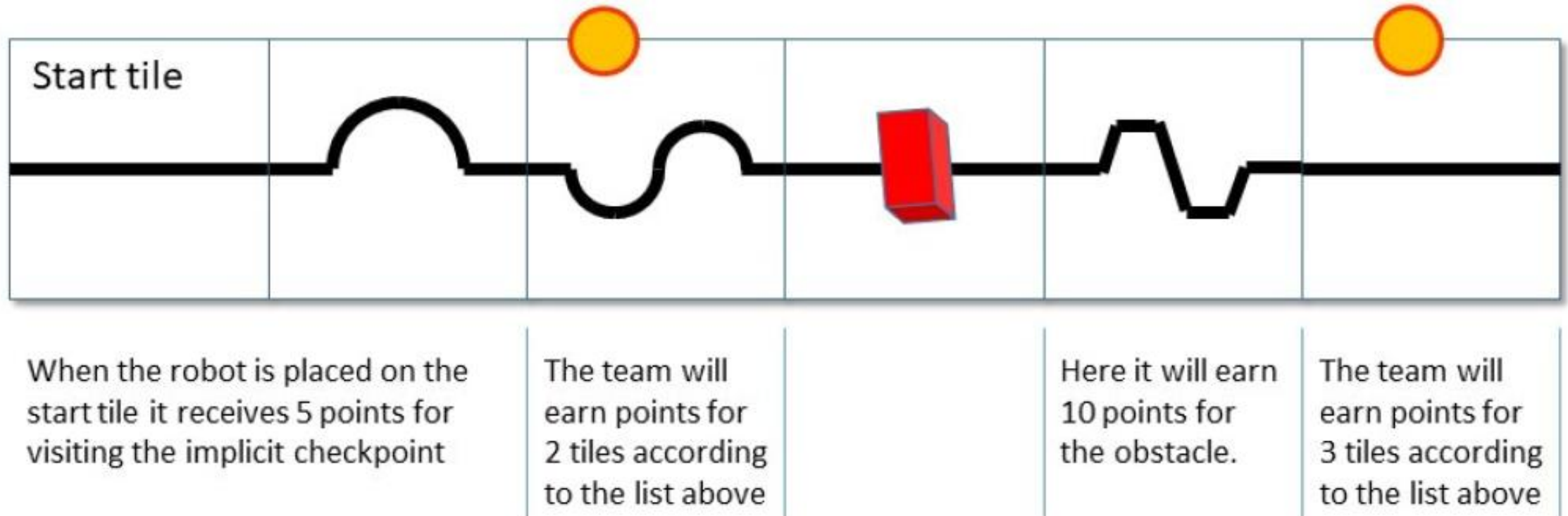
# Scoring Run



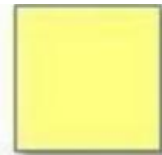
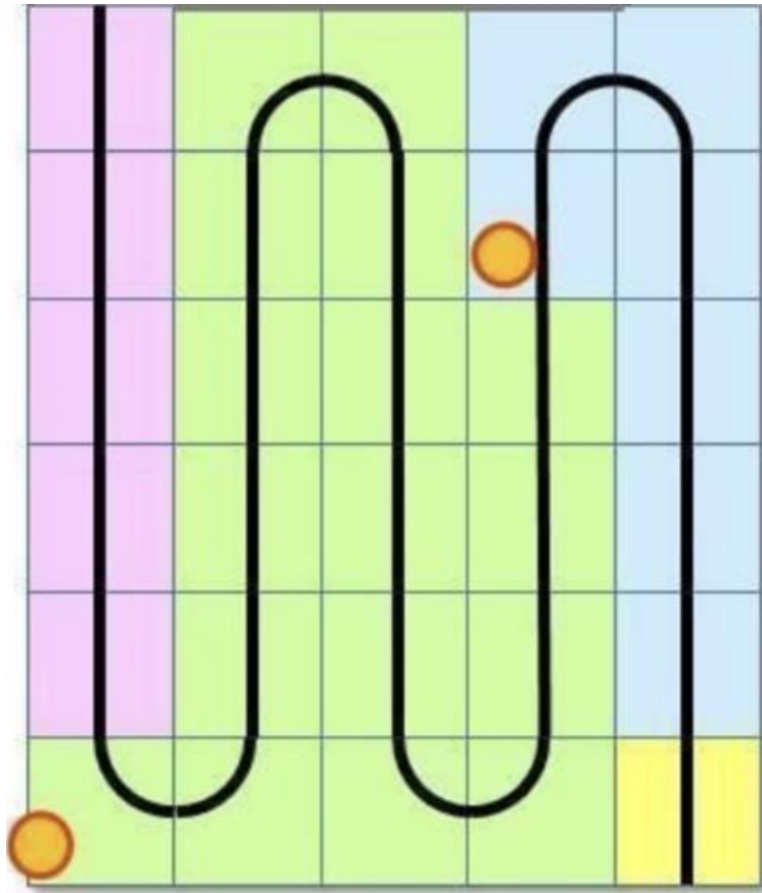
- 10 points for following the correct path on a tile at an intersection or a dead end.
- 20 points for navigating through a seesaw tile.
- 20 points for overcoming each obstacle (bricks, blocks, weights, and other large, heavy items).
- 10 points for reacquiring the line after a tile with one or more gaps.
- 10 points for successfully navigating through a ramp (i.e., up or down successfully).
- 10 points for negotiating a tile with one or more speed bumps.

# Scoring Run

- 1<sup>st</sup> attempt = 5 points/tile
- 2<sup>nd</sup> attempt = 3 points/tile
- 3<sup>rd</sup> attempt = 1 points/tile
- Beyond the 3<sup>rd</sup> attempt = 0 points/tile



# Checkpoints



1 checkpoint of 1 tile(starting tile) x 5 points first try



1 checkpoint of 7 tiles x 5 points first try

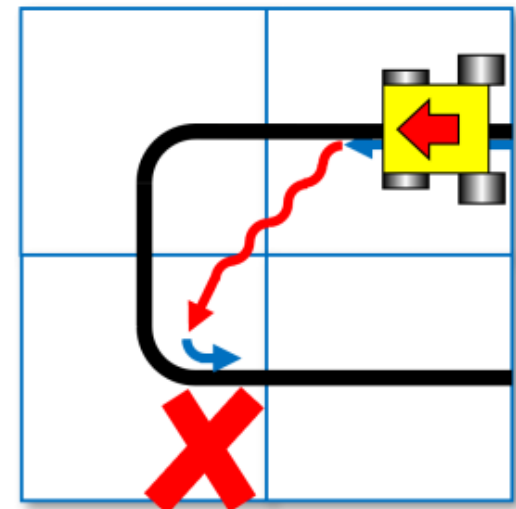
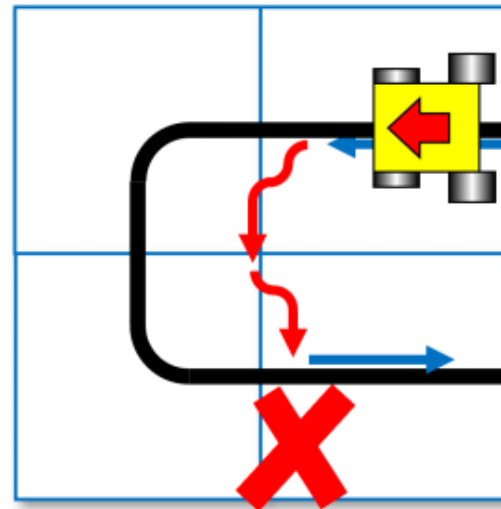
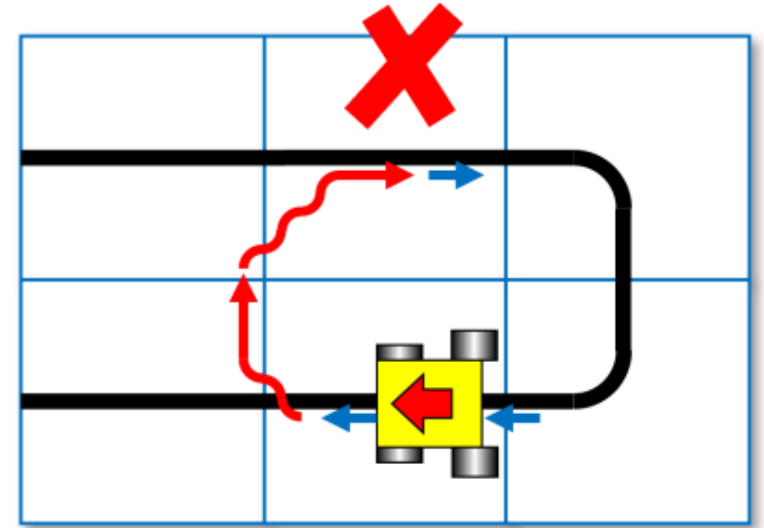
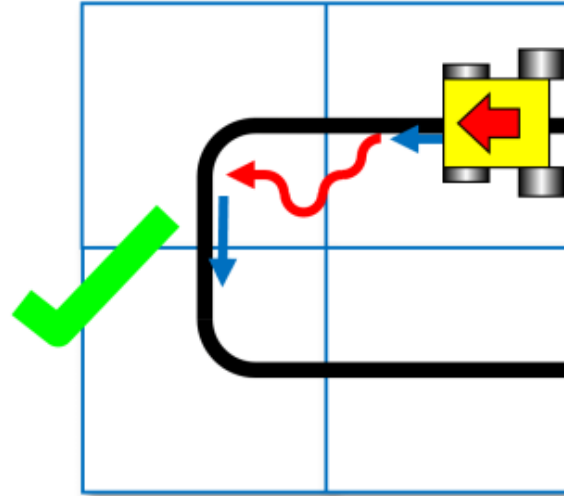
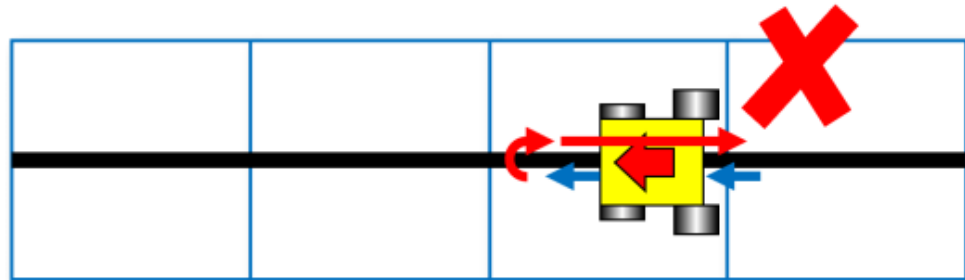
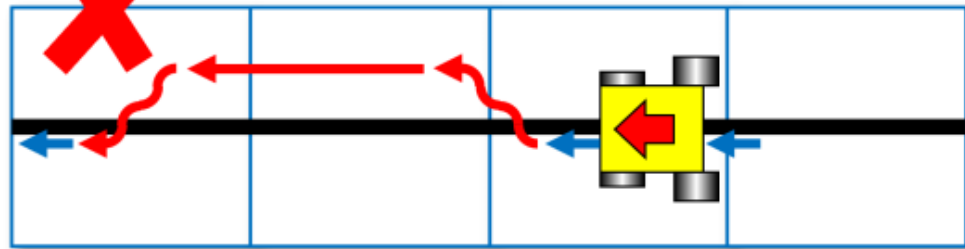
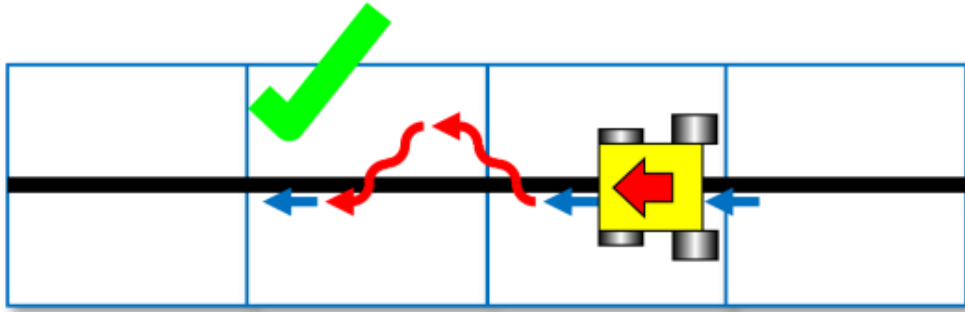


1 checkpoint of 17 tiles x 5 points first try



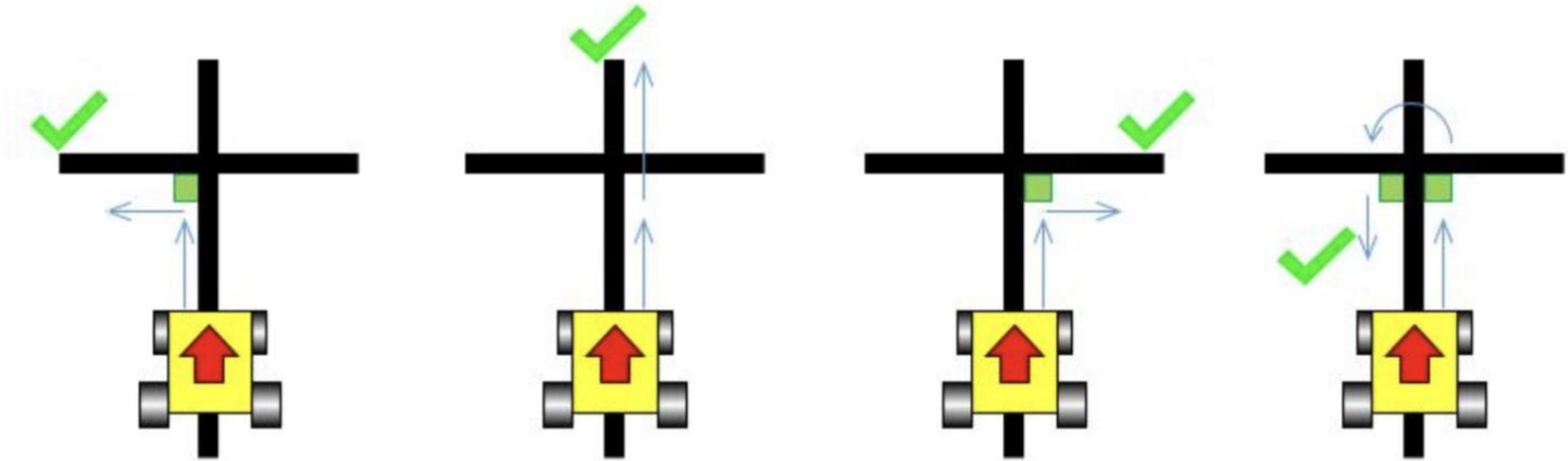
0 checkpoint of 5 tiles x 0 points as they don't have more checkpoints.

# Lack of Progress

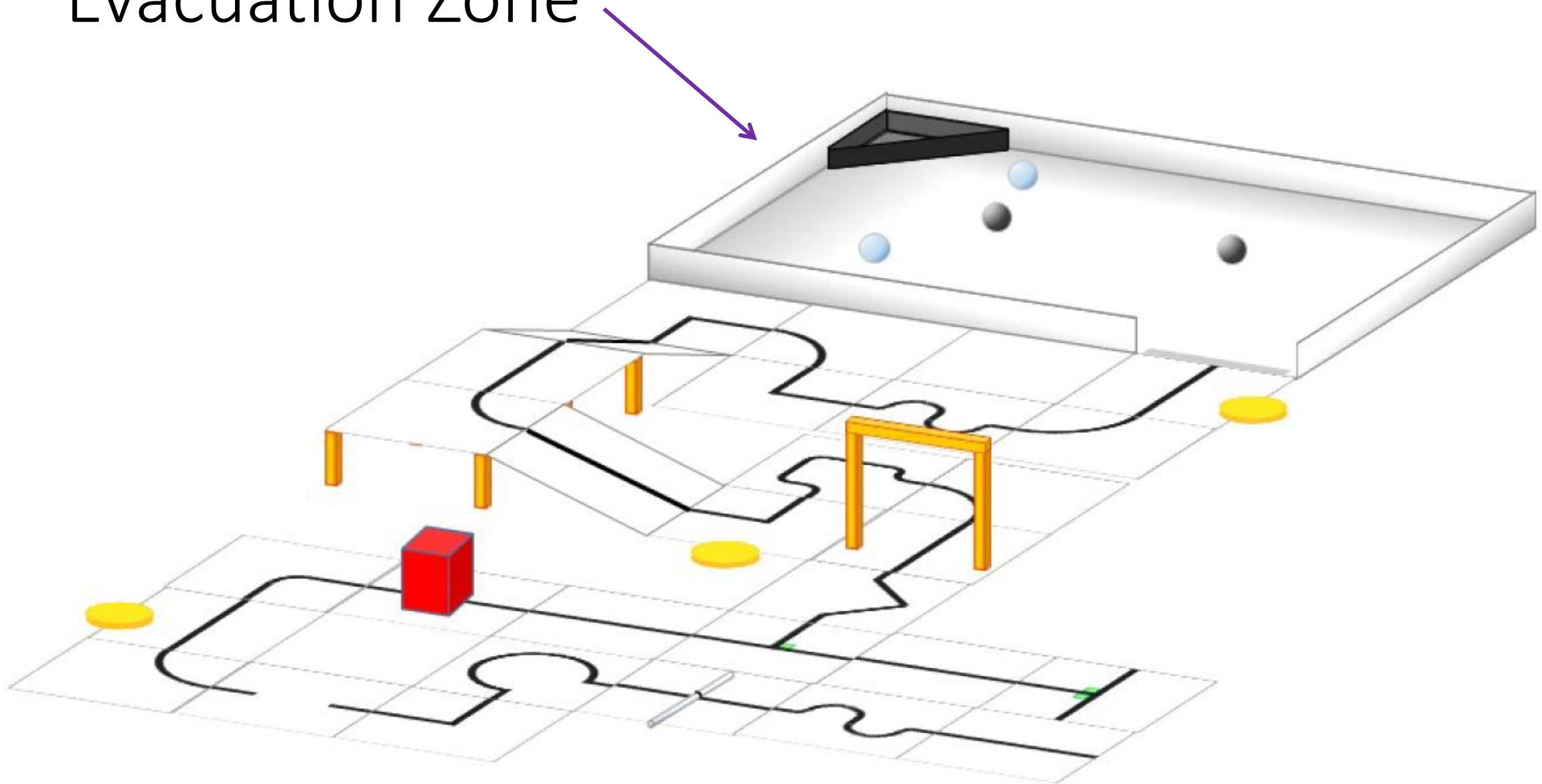




# Intersections



# Evacuation Zone



# Evacuation Zone

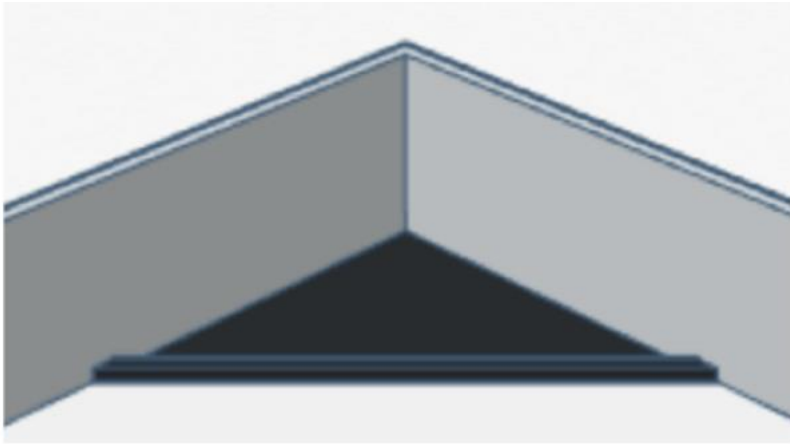
- The line follow section will lead to the entrance of the evacuation zone.
- The line will begin again at the exit of the evacuation zone.
- The evacuation zone is 120 cm by 90 cm with walls around the 4 sides that are at least 10 cm high and coloured white.
- At the entrance to the evacuation zone there is a 25 mm × 250 mm strip of reflective silver tape on the floor.
- At the exit of the evacuation zone there is a 25 mm × 250 mm strip of black tape on the floor.

# Evacuation Points

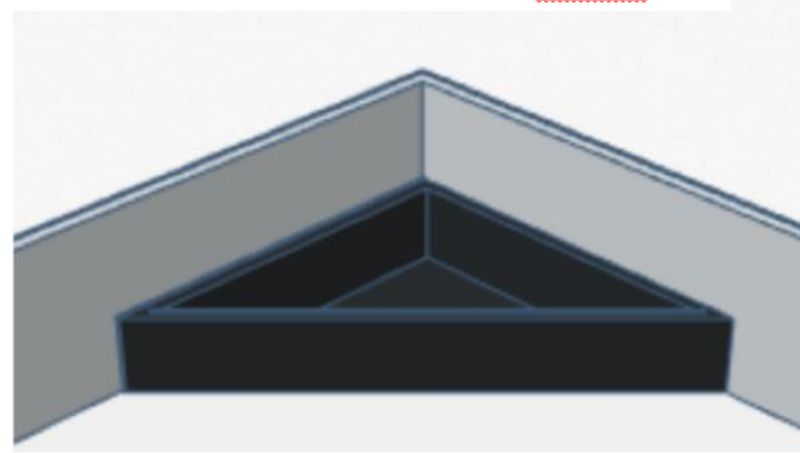
6. Teams can choose between two different evacuation points, which are both right angled triangles with sides of 30 cm × 30 cm:

**Level one:** The evacuation point is a black triangle with a bump of 5mm along the side that does not touch a wall.

**Level two:** The evacuation point is a black triangle with 6 cm walls and a hollow centre.



Level 1



Level 2

Saving “victims” in the evacuation points will provide multipliers on the points accumulated in the line follow zone. The multipliers vary (1.0, 1.1, 1.2, 1.3, 1.4, etc.) depending on evac zone level, number and type of victims saved:

- 3 silver spheres represent “live victims”
- 3 black spheres represent “dead victims”

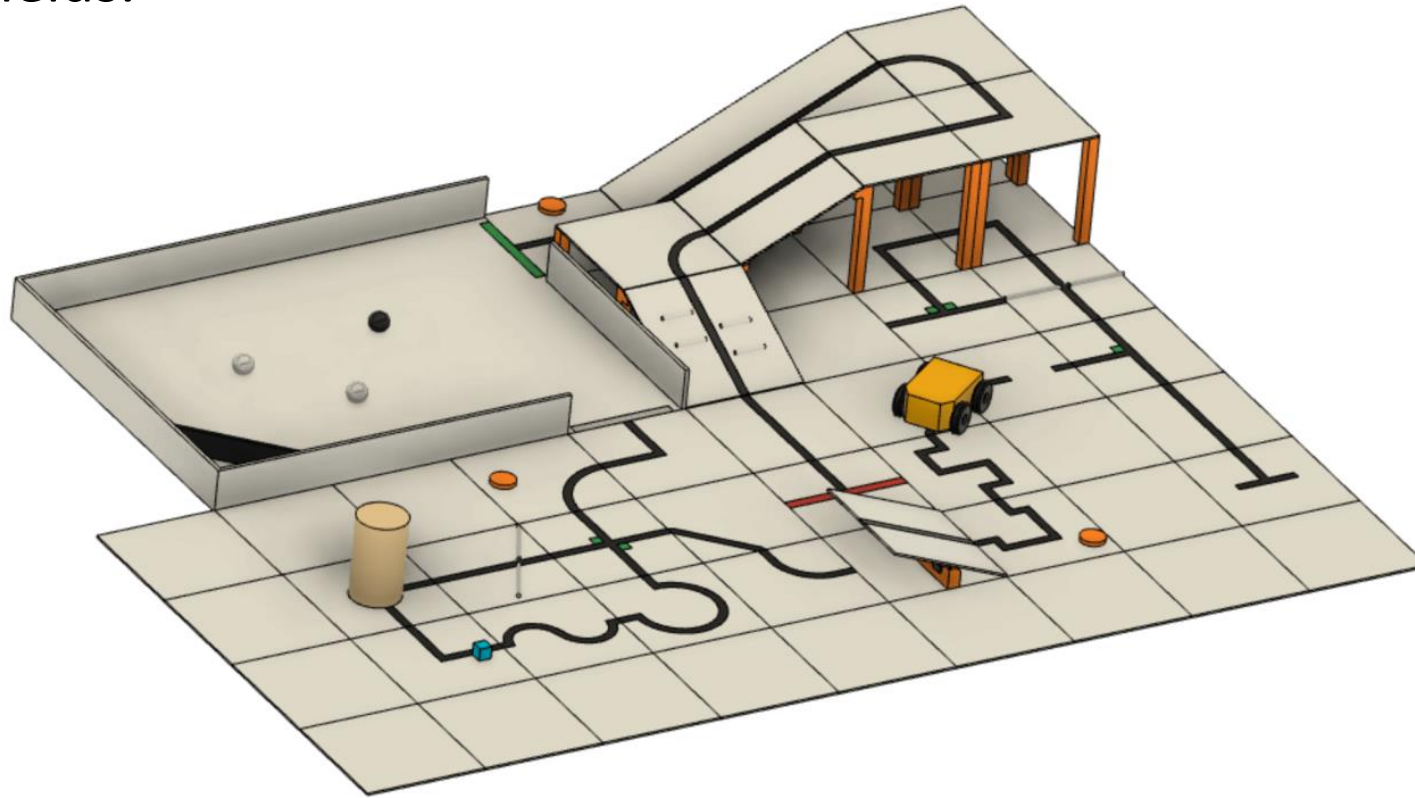


# SuperTeam Challenge

- The SuperTeam Challenge takes place independently of the main competition and won't influence the team's individual score. It has its own award and is focused on the cooperation between the teams.
- Each SuperTeam will consist of at least two teams.
- The rules of the SuperTeam Challenge will be announced at the competition and require the teams of each SuperTeam to work together.
- The SuperTeam Challenge can require software changes and minor hardware adjustments.

# International Competition

- Teams that make it to the international competition will see more challenging fields.



# Most importantly, have fun!

