COVID – 19 Challenges

Senior Advanced Category

To Rebuild
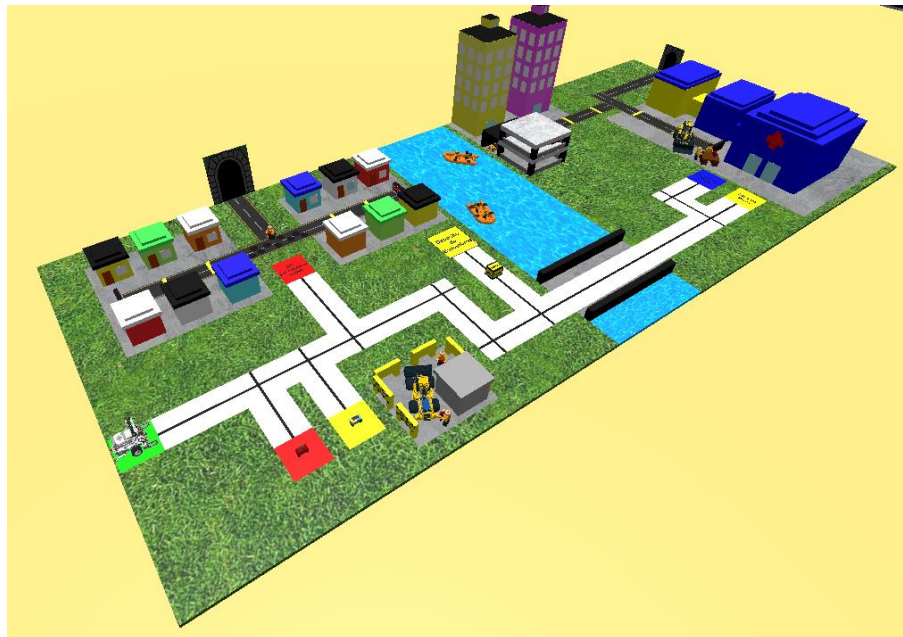
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General Rules

1. There are no teams, only single competitors.

2. The competitor must be of the age group category or younger.

3. The competitor must never be older than the age group of the category.

4. **Your username must be visible at all times, it can be on the brick´s name or on the program name**

5. **No changes to the environment or track are allowed before, after and during the simulation.**

6. **The only change allowed is to import a robot and rotate it within the Start Zone before the simulation starts. This robot can only be a maximum of 25cm in width, height and length.**

7. When the simulation starts, the competitor can only use the camera tools and the scoreboard button.

8. All tasks must be solved only using the code created by the competitor for the robot.

9. **In case the judging team is suspicious of any competitor's score/time, they may request a video or a conference from the participant, to prove how their result was obtained according to the allowed rules and requirements. In case the competitor does not accept the video or conference or does not prove how the score/time was obtained, the result will be eliminated from the ranking.**

10. In all categories, **the top 20 among the competitors must submit a video** of their robot solving the challenge.

11. In the video, the robot must score the same points as shown on the leaderboard. The time of the robot must be the same as the time on the leaderboard ± 2 seconds.

If there is any insufficiency or alteration in the rules, the final decision will be announced by the judges.

Judges have the ultimate authority to amend the rules and regulations.

Judges have the ultimate authority to disqualify a result if:

1. Participants pause and resume the simulator between the code.

2. The participants create any other situation that the judges deem unacceptable.
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How to create your video?

You need to record your computer screen using the Windows 10 feature, QuickTime player, OBS or another screen recording option (power point).

Options (Choose the one that is easiest for you):

Recording screen Windows 10, from RDKtutorials**.**

 https://www.youtube.com/watch?v=kpZUN-ae4ts&t=0s

Recording screen Mac, from **Think Media.**

https://www.youtube.com/watch?v=prUVS0HF2gU

Recording screen OBS, from Gauging Gadgets

https://www.youtube.com/watch?v=_LWwqbHU8L0

The participant must upload the video to YouTube, Vimeo, Google Drive, etc.

Video tutorial to upload a video to YouTube, from the **VideoMarketingViral** channel**.**

https://youtu.be/jq363d1mziw?t=14

If you upload your video to YouTube, you have to publish it as Public or Unlisted.

If you upload your video to Google Drive confirm that the video is accessible.

Register Details

-In the video, the participant has to show the robot solving the entire challenge. If the video starts after the robot starts solving the challenge cut the video before the robot finishes the task, the video will not be valid.

-The robot and the marker must be visible at all times.

-In the video the participant must use the tracking type "Top Camara" and "Tether".

Top Camera and Tether tracking

1) You need to open the Advanced Mode.

To access "Advanced Mode", all you have to do is press "F12" on your keyboard.

It could be:
-F12
-Ctrl+F12

-Fn+F12

-Alt+F12

-Cmd+F12

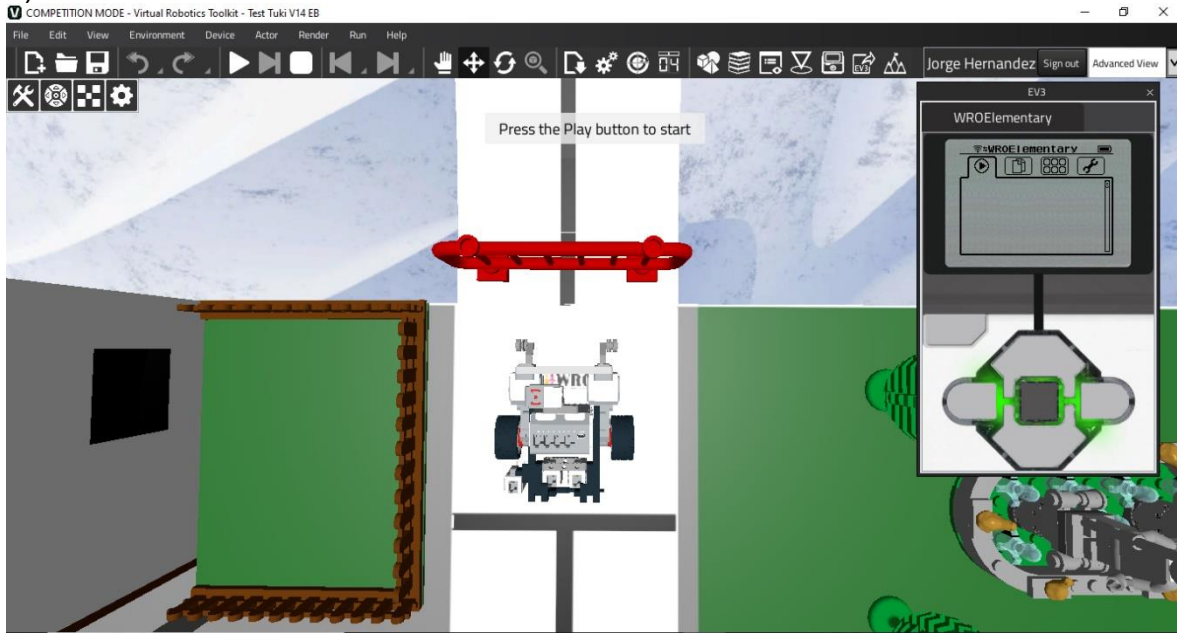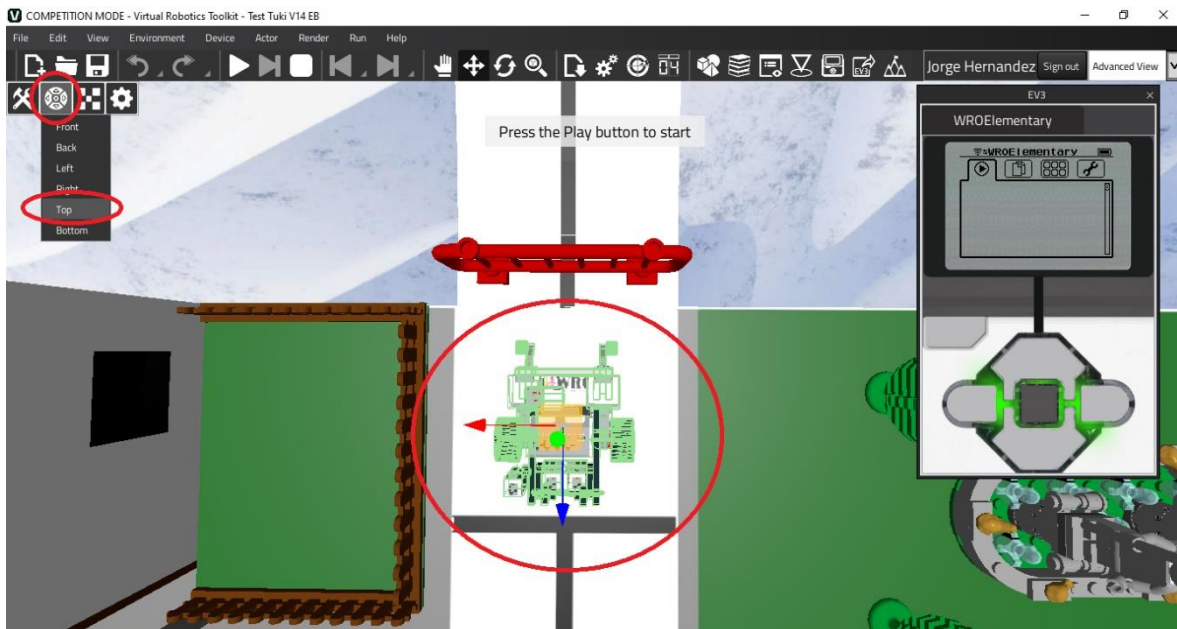Simple mode looks like this:

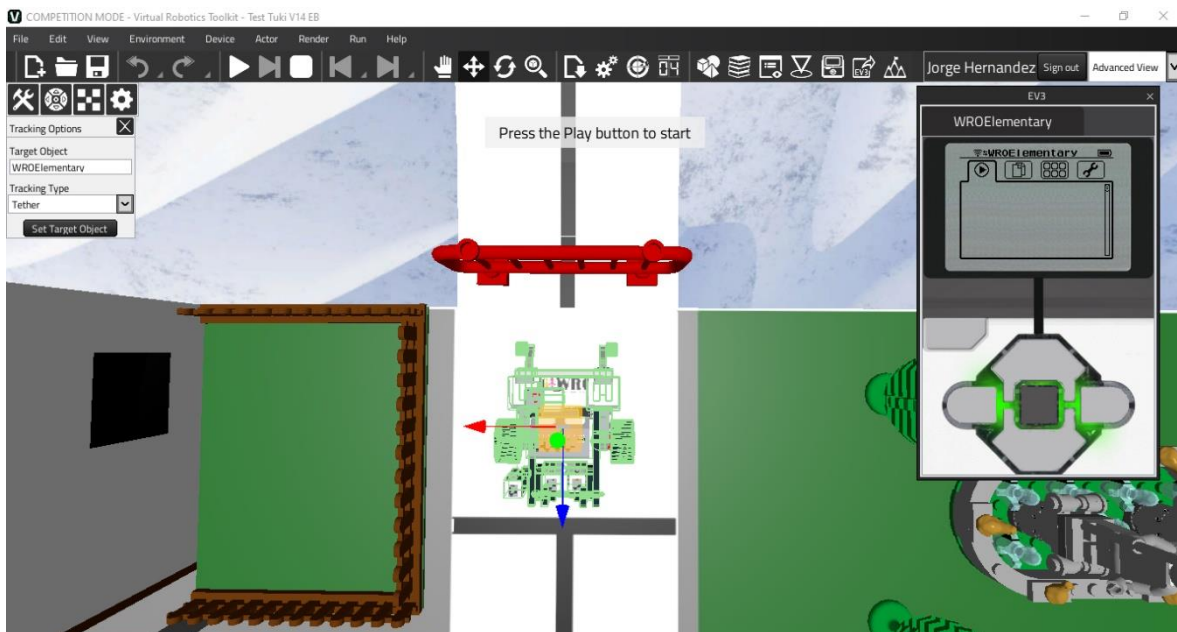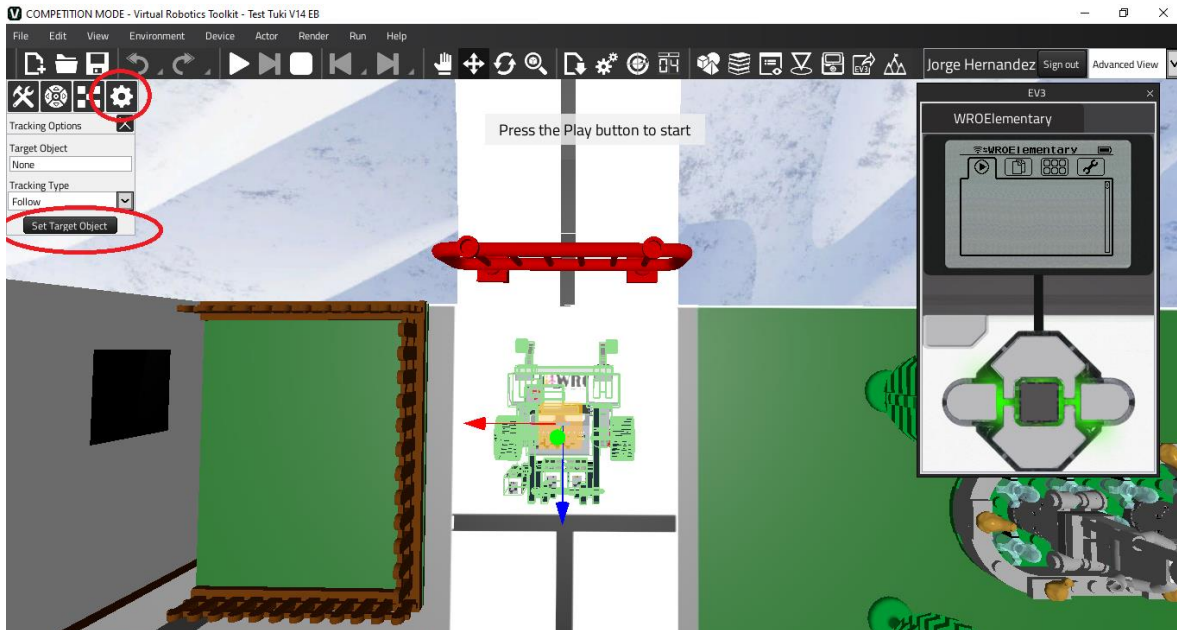Advanced mode looks like this:

2) Move the EV3 brick.

3) Select the robot and use the top camera.

4) Use the "Tether" tracking type. The robot must be selected and then click on "Set Target object".

Change the tracking type to "Tether".

Top Camera & Tether Tracking tutorial:

https://youtu.be/hNvJNMnV9dM

How to share your video with us?

The participant must click on the following link and fill out the form.

Please make sure to enter the correct email address. In case there is a problem with your video or your results, we would like to contact you.

Form: https://forms.gle/tvnfrj15QiD8r7NR9

Tie Result:

18	Participant 1	2020-11-05	5	100	00:55.955
18	Participant 2	2020-11-05	3	100	00:55.955

If the participants have the same score on the leaderboard, the judging team will check the next highest scores of the participants. When the judging team knows who has the best score, they will take 0.001 seconds off the winning participant's time on the leaderboard to break the tie score.

In the example "Participant 2" getting a second-best high score, means that we will take 0.001 seconds from the participant's time result.

| 18 | Participant 2 | 2020-11-05 | 3 | 100 | 00:55.954 |
| 19 | Participant 1 | 2020-11-05 | 5 | 100 | 00:55.955 |

If one of the participants has only one round submitted, the other participants will be the tiebreaker winners.

Difference of the result in real time

The team of judges detected that less than 1% of the users have a problem with the PC where the time result presented removes the decimal seconds.

Example:

Real time result: 00:55.230

Delivery time result: 00:55.000

If the participant has this problem and is in the Top 20, we will swap with the time shown in the video.

Remember that if you are in the Top 20 it is very important that you fill out the form with your video, in case the participant has not filled out the form with the video the result will be taken out of the leaderboard.
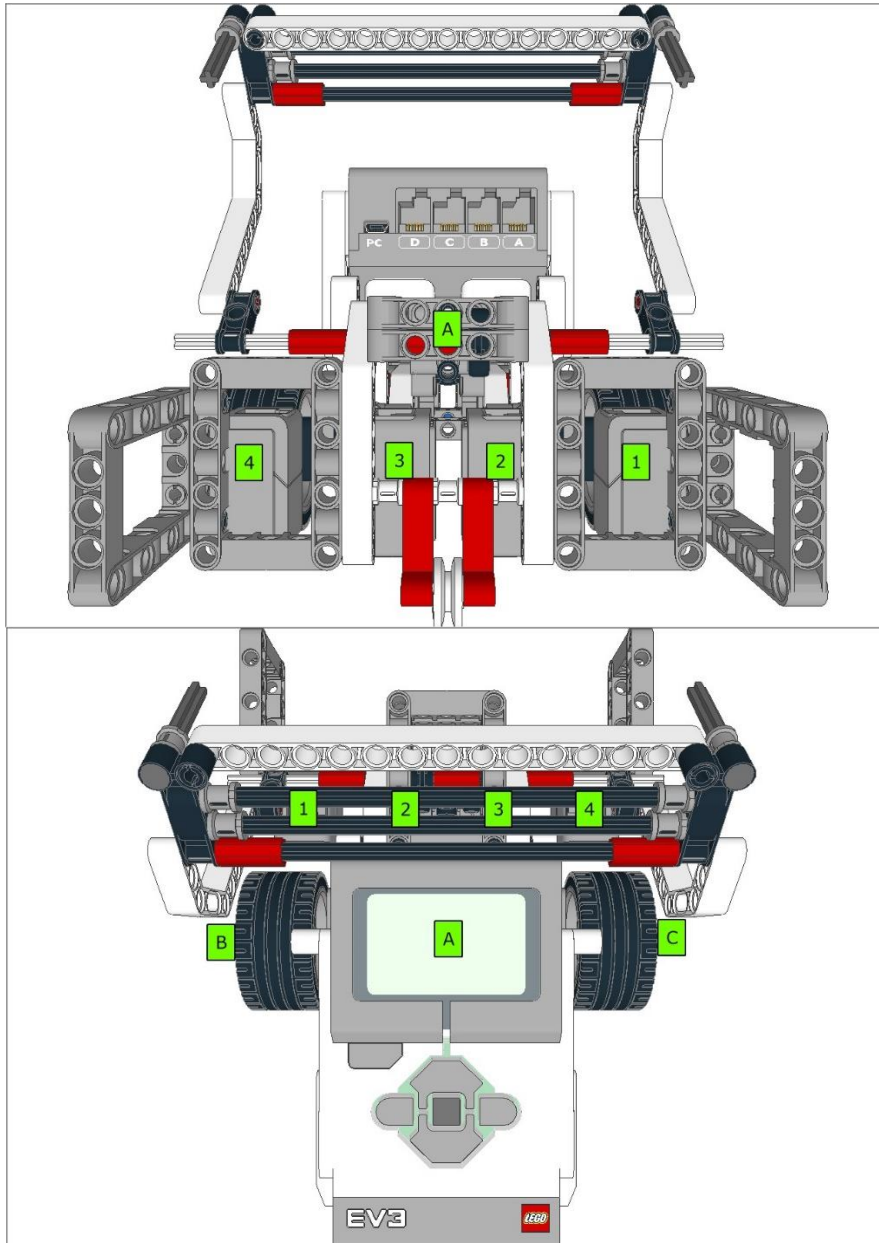
Robot Ports
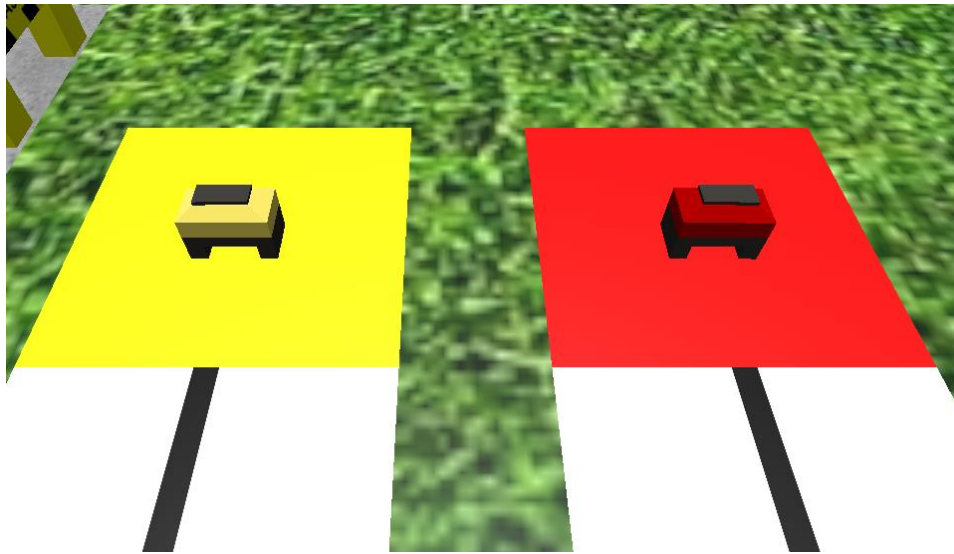*** Remember, it is allowed to import the robot.**
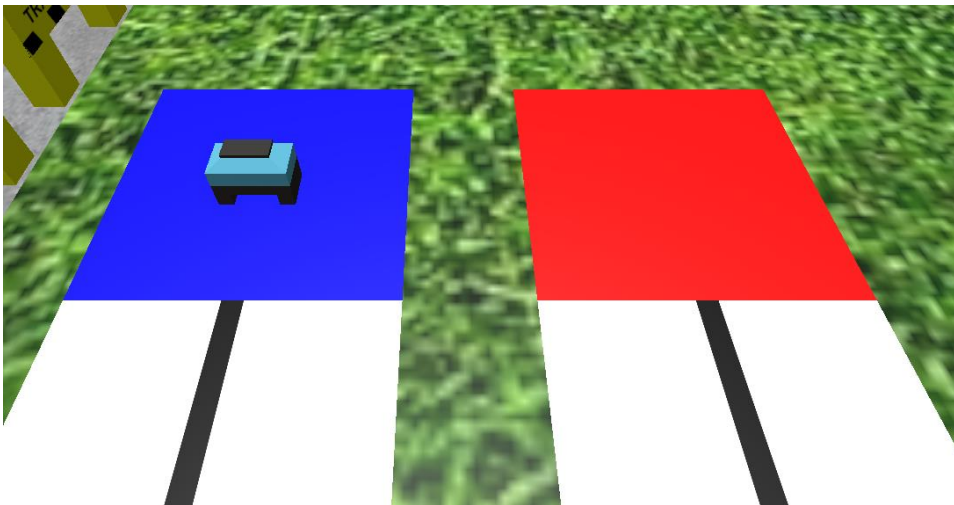
Robot Mission

The economy is quite weak and needs your help to recover. In order to restore it, we need to make renovations throughout the city.

At the start of the challenge there will be 2 containers:

- Yellow: Beam.
- Red: Street repair kit.

- Blue (Appears when the yellow container is taken to its place.): Beam.
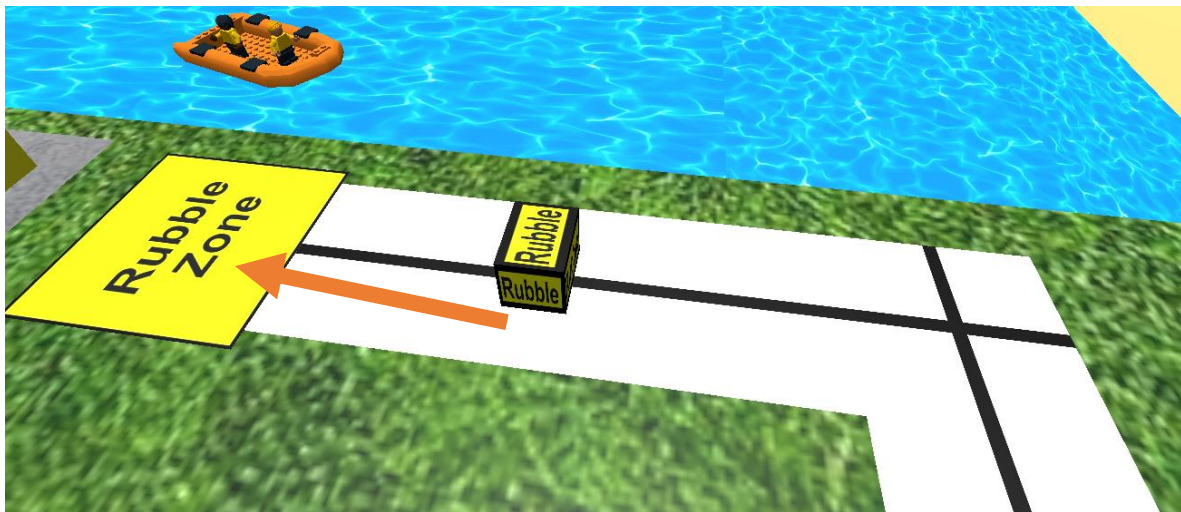

Each container has the color of the zone to which it belongs.

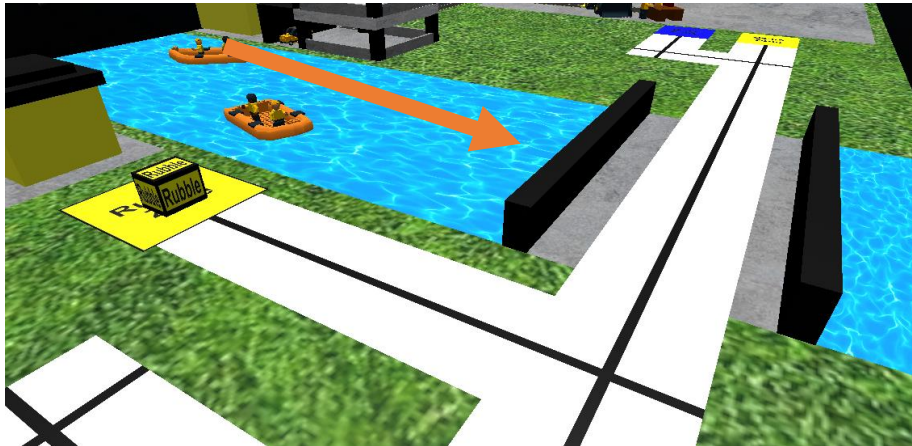You must take each container to its proper place. And each container must be completely inside its area.

The first mission is to bring a **street repair kit** to the city neighborhood.
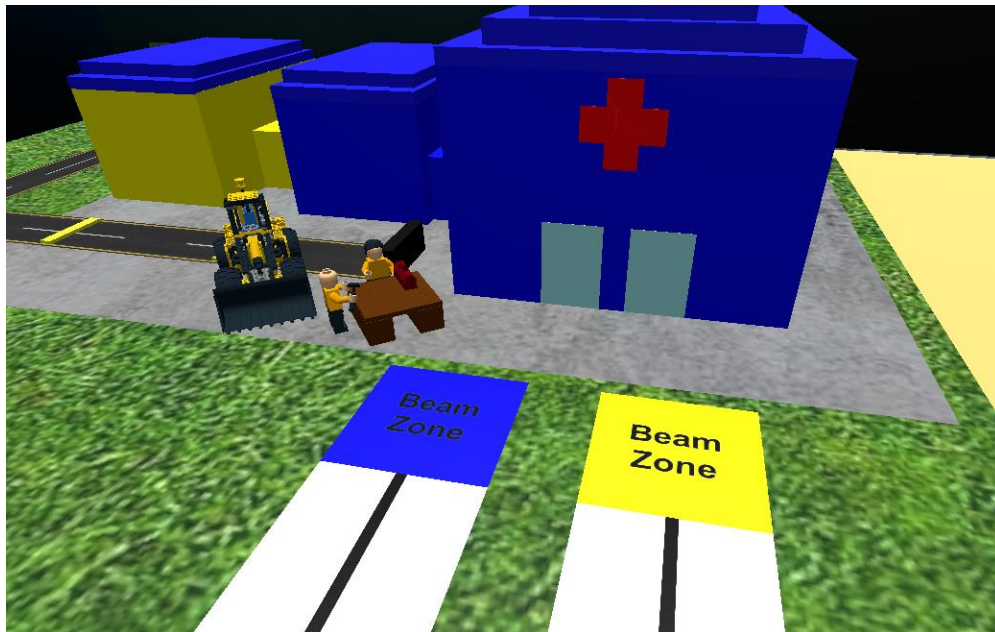

Here

Then, you have to go to the lake in order to build a bridge.
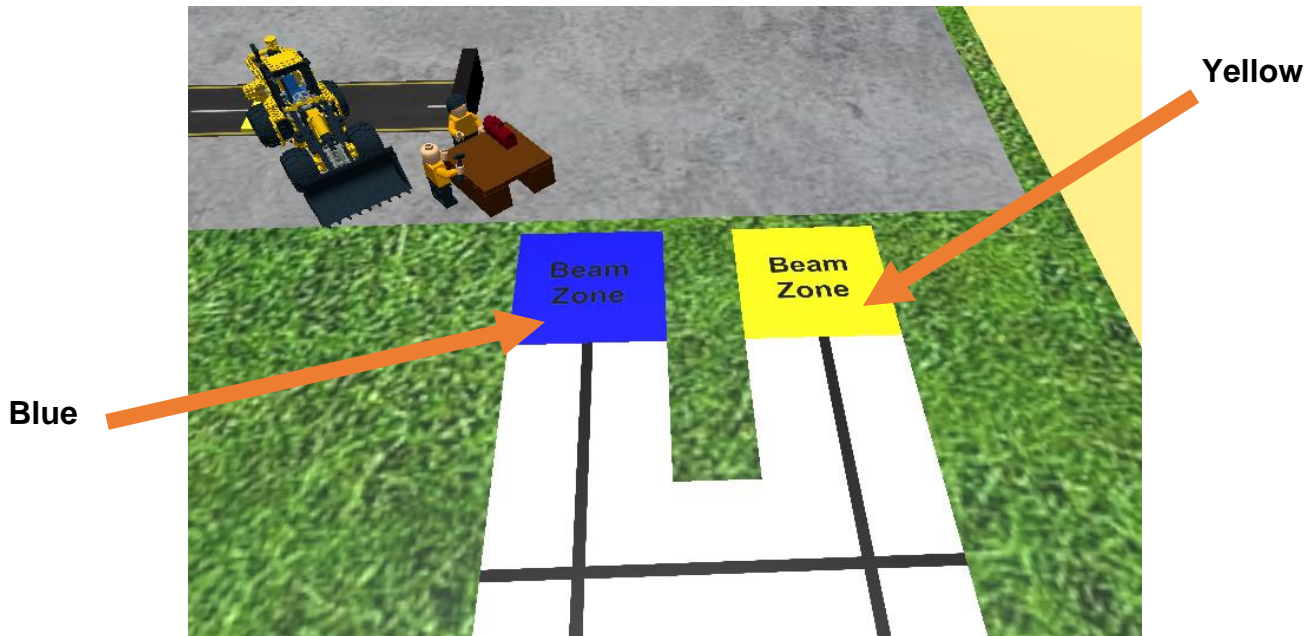

To build the bridge, the debris from the old bridge must be pushed into its rubble area.

Once the bridge is ready you will be able to cross to the second part of the map where we will build a **modular hospital**.

In order to build this hospital, you must bring the yellow and blue containers to your area.

Yellow

Blue

Once the hospital is built, the robot must return to the starting zone and be completely inside the area.

You can return to the start zone at any time to send scores as long as you have achieved a minimum of 20 pts.

Score

To Rebuild	Each one	Total
RED container and bridge DEBRIS		
Place each container in its place and completely inside the area.	**25**	**50**
BLUE and YELLOW Containers		
Place each container in its place and completely inside the area.	**20**	**40**
Return to the starting area		
The robot returns to the starting area and remains completely inside.	**10**	**10**
Highest Score		**100**