

RVG 2022 CHAMPIONSHIP

RVG World Championship 2022 High School Category Cogmation City

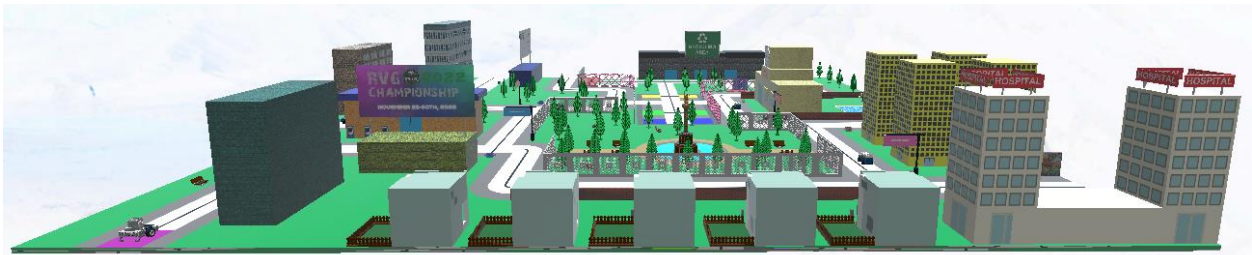



Table of Contents

General Rules	2
Format of the competition.....	3
How to score in a team competition?.....	4
Robot Missions.....	4
Score.....	5
Scoring Interpretation	6
Important Information	8
Robot Ports.....	8
How to create your video?.....	9
How to share your Top 20 video to us?	13

General Rules

- 1. All teams must consist of 1 to 3 competitors.**
- 2. The team must be from the category age group or younger. The competitor must never be older than the category age group.**
- 3. It is not allowed to make changes in the environment before, after and during the simulation.
It is not allowed to import your own robot.**
4. When the simulation starts, the competitor can only use the camera's tools and the scoreboard button.
5. All the tasks need to be solved only by using the code created by the team for the robot.
6. In case, the Judging Team suspects of the score/time of any competitor, they can request a video or a conference from the team, to prove how their result was gotten according to the rules and requirements allowed. In case the competitor doesn't accept the video, conference or doesn't prove how the score/time was gotten, the result will be deleted from the ranking.
- 7. In all the categories, top 3 must send a video (one per team) of their robot solving the challenge.**

8. In the video, the robot's points must be equal and the time must be equal or within ± 1 seconds of the best round obtained by the team members and is displayed in the leaderboard.

3	 Team CDMX, MX	2021-07-13	3	100	02:23.074
	Team member 3 CDMX, MX	-	-	100	02:23.015
	Team member 2 CDMX, MX	-	-	100	02:23.271
	Team member 1 CDMX, MX	-	-	100	02:22.936
	Team member 2 CDMX, MX	-	-	100	02:26.426
	Team member 2 CDMX, MX	-	-	100	02:27.186
	Team member 3 CDMX, MX	-	-	75	02:51.019

In the example the best round was from “Team member 1”, so the robot in the video must have the same score (100) and in the time be equal or ± 1 seconds (21.936-23.936 seconds).

In case of any unforeseen circumstances in which the rules have to be altered, the judges will have the final say in the results.

The judges have the utmost authority to amend the rules and regulations.

The judges have the utmost authority to disqualify a result if:

1. Participants pause and resume the simulator in between the code.
2. Participants create any other situations which judges deem unacceptable

Format of the competition

There will be three newly designed VRT Mat Challenges.

You can only be part of one team.

RVG 2022 CHAMPIONSHIP	Elementary School Category	High School Category
Age	Max. 12 years	13-19 years
Team Size	1 to 3 competitors per team	
Official Simulator	Virtual Robotics Toolkit	
Robot	It's not allowed import your own robot.	
Software	Open to any control software that can connect to Virtual Robotics Toolkit	

How to score in a team competition?

To determine the team's score, the system will take the best result of each team member to determine an average score and an average time.

In this video you will find a better explanation of how to create a team and how to submit results.

<https://youtu.be/lh2l4UfuFpk>

Robot Missions

Blue Garbage Container- Semia Ave:

The robot must the blue garbage container to the correct zone in the Recycling Area.

Blue Garbage Container- RoboTecnia Ave:

The robot must the blue garbage container to the correct zone in the Recycling Area.

Yellow Garbage Container- Felta Ave:

The robot must the yellow garbage container to the correct zone in the Recycling Area.

Blue Garbage Container in the Incorrect Zone:

The robot must the blue garbage container to the correct zone inside the Recycling Area.

Green Garbage Container in the Incorrect Zone:

The robot must the green garbage container to the correct zone inside the Recycling Area.

Yellow Garbage Container in the Incorrect Zone:

The robot must the yellow garbage container to the correct zone inside the Recycling Area.

The mission is complete when the robot parks into the final area and the chassis of the robot is entirely (top-view) within the area.

For more understanding you can see the next sample video:

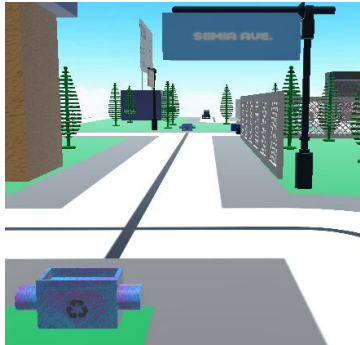
<https://youtu.be/BzuRHa1P6Uk>

Score

High School Category- Cogmation City	Each	Total
Garbage Containers in the streets.		
The blue garbage container in Semia Ave. was move to the correct zone in the Recycling Area.	15	15
The blue garbage container in RoboTecnia Ave. was move to the correct zone in the Recycling Area.	15	15
The yellow garbage container in Felta Ave. was move to the correct zone in the Recycling Area.	15	15
Garbage Container in the Recylcing Area		
The blue garbage container was move to the correct zone in the Recycling Area.	15	15
The green garbage container was move to the correct zone in the Recycling Area.	15	15
The yellow garbage container was move to the correct zone in the Recycling Area.	15	15
Park the robot		
Robot stops on Finish Area and simulation stops. (only if other points are assigned)	10	10
Maximum Score		100

Scoring Interpretation

Blue Garbage Container- Semia Ave



Start zone of the Garbage Container

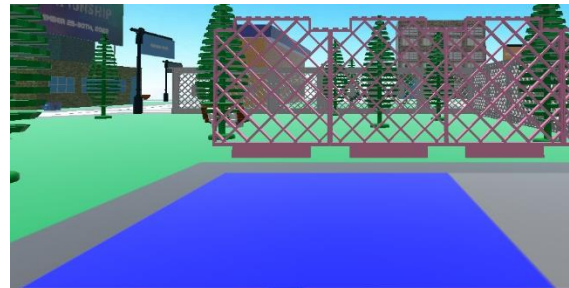


Final zone of the Garbage Container

Blue Garbage Container- RoboTecnia Ave



Start zone of the Garbage Container

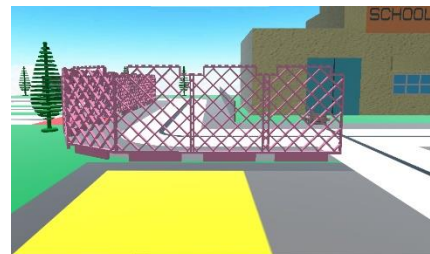


Final zone of the Garbage Container

Yellow Garbage Container- Felta Ave



Start zone of the Garbage Container



Final zone of the Garbage Container

Garbage Containers in the incorrect Zone – Recycling Area



Incorrect Position of the Garbage Containers (Blue, Green, Yellow)



Correct Position of the Garbage Comntainers (Yellow, Green, Blue)



Robot stops on Finish Area and simulation stops.
(only if other points are assigned)

Important Information

RVG 2022 CHAMPIONSHIP

Schedule

November 25
Start time to submitting result and opening ceremony is 7:00 pm UTC-5

November 29
End time to submit results is 11:00 pm UTC-5

November 30
Closing Ceremony

Robot Virtual Games (Facebook icon)

Robot Virtual Games (YouTube icon)

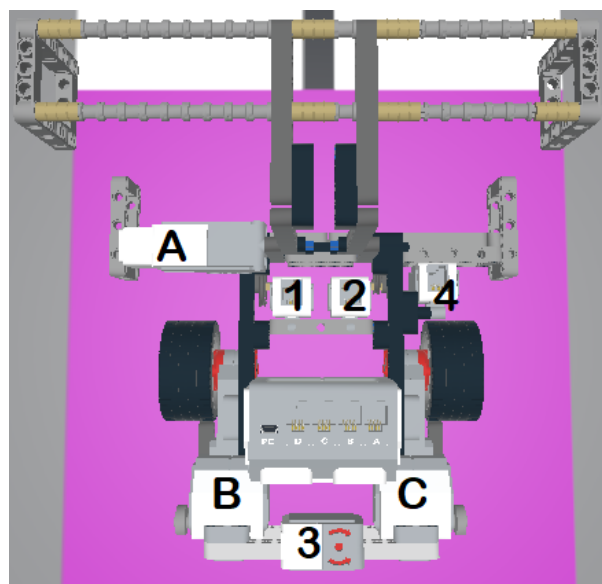
Icons: clipboard with checkmark, globe, and hands holding globe.

The end time to **fill the form** Top 3 is **November 29 11:40 pm UTC-5**



Closing Ceremony will be **November 7:00 pm UTC-5**

Robot Ports

*Remember, it is not allowed import a new robot.





Tie Result

18	 Team 1 Sarawak, MY	2021-07-03	4	20	00:22.549
18	 Team 2 CDMX, MX	2021-07-13	5	20	00:22.549

If two or more teams have the same average result on the leaderboard, the judging team will review the next highest average results of the participants. When the judging team finds out which team got better results, they will take out 0.001 seconds from the time on the leaderboard of the team winner team to tiebreaker the result.

On the example "Team 2" got a second better high score, it means we will take 0.001 seconds of the team average time result.

18	 Team 2 CDMX, MX	2021-07-13	5	20	00:22.548
19	 Team 1 Sarawak, MY	2021-07-03	4	20	00:22.549

If one of the teams only have 1 submitted average result the other team will be the winner of the tiebreaker.

How to create your video?

You need to record computer screen using Windows 10 Function, QuickTime player, OBS or other option to record screen.

Screen record Windows 10

https://youtu.be/mVJsm_000c0

Screen record Mac

<https://youtu.be/s9xnsj6ditM>

Screen record OBS

<https://youtu.be/QKmrDUJFRkM>

Install OBS:

<https://obsproject.com/>

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

How to upload a video on YouTube?

<https://youtu.be/4RZ3FooBKYE>

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

Record Details

On the video, the participant has to show the robot solving all the challenge. If the video starts after the robot begins solving the challenge or cuts the video before the robot finishes the task, the video will not be valid.

-Participants must place their Team name in the virtual brick or in the name of their code.



-The robot and the scoreboard must be visible all the time.

-On the video the participant must use "Top Camera" and "Tether" tracking type.

Top Camera and Tether tracking type

1) Need to open Advanced Mode.

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

Could be:

-F12

-Ctrl+F12

-Fn+F12

-Alt+F12

-Cmd+F12

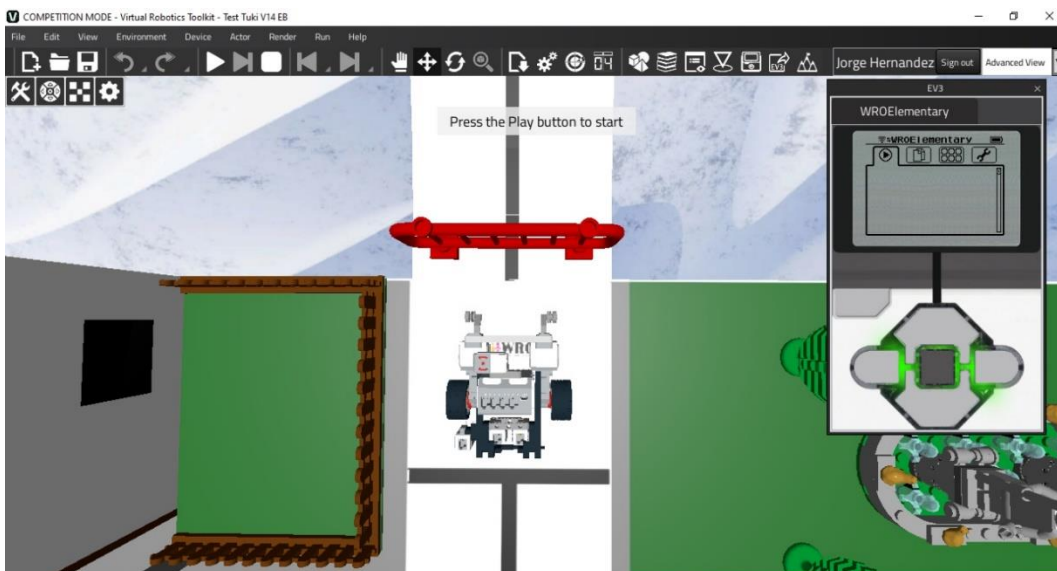
Simple Mode



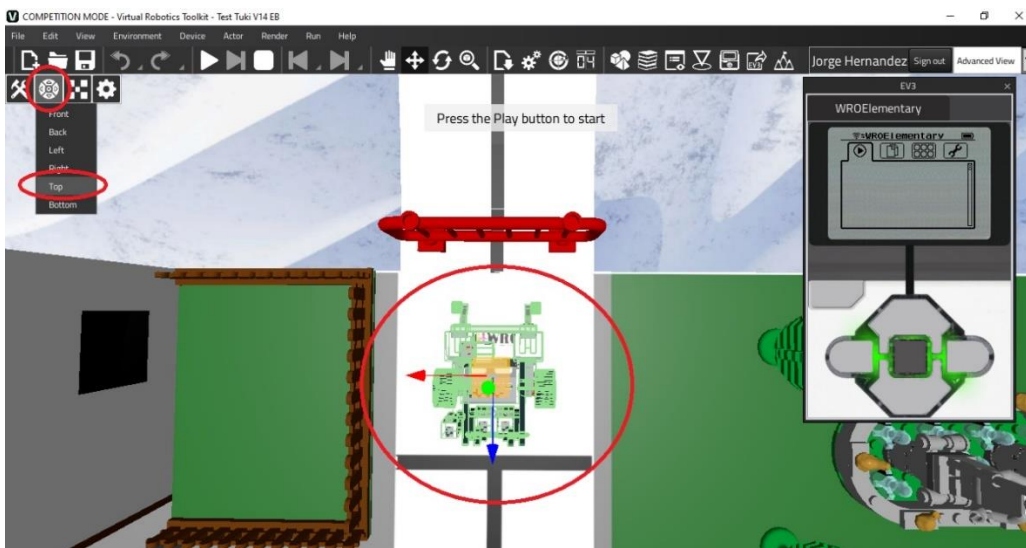
Advanced Mode



2) Move the Virtual EV3 Brick.

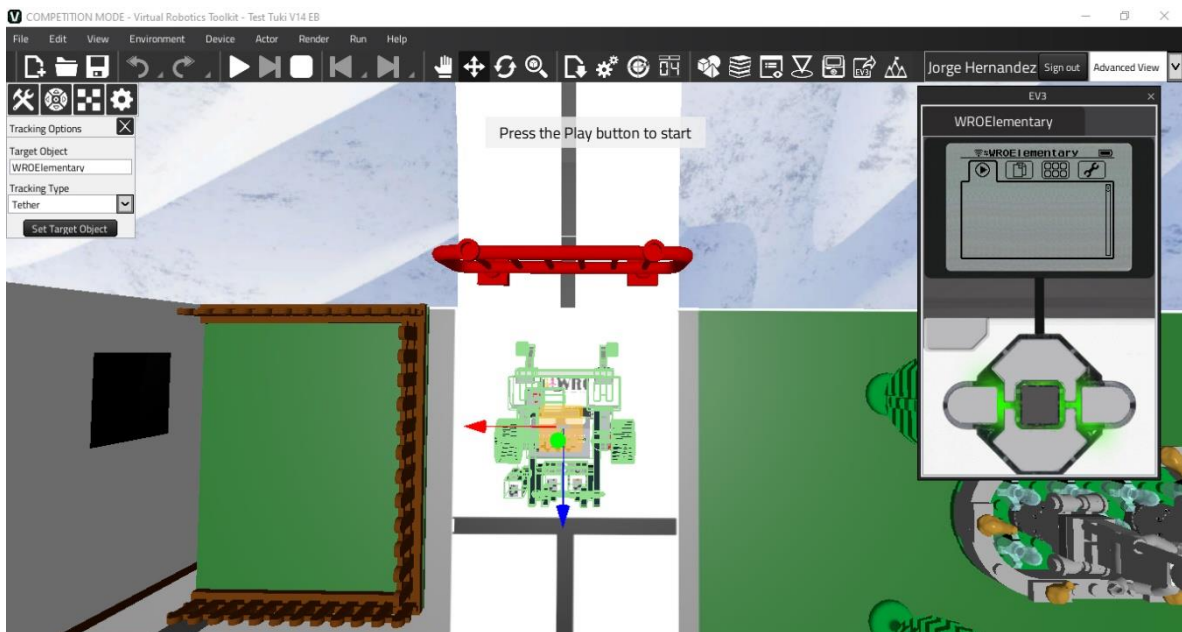
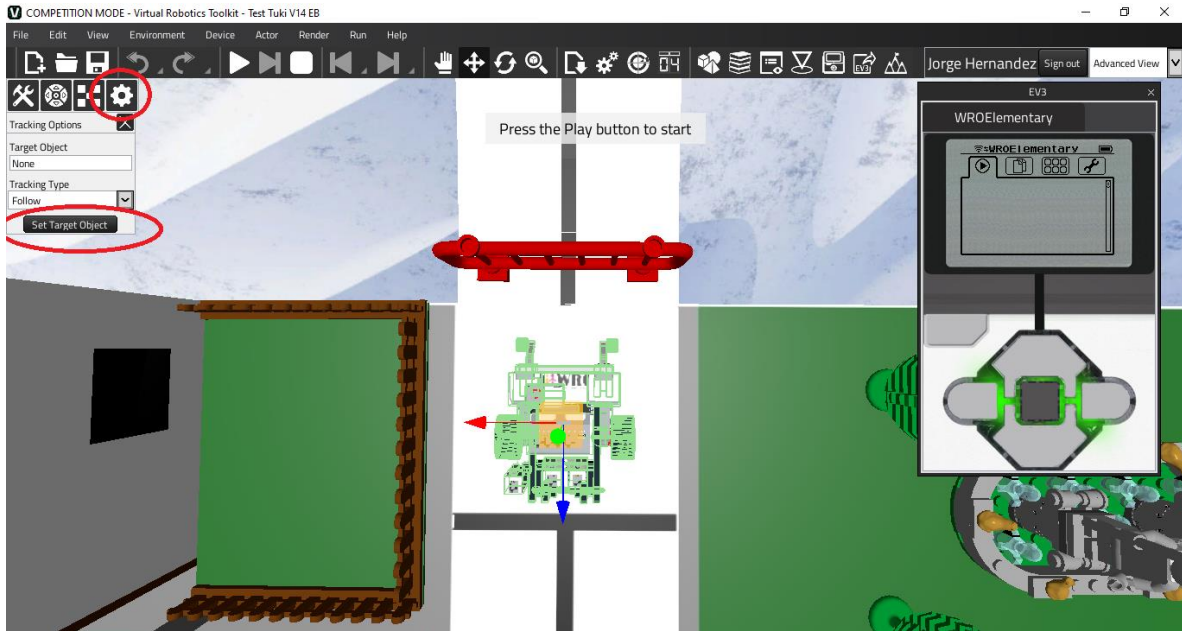


3) Select the robot and use Top Camera.



4) Use “Tether” Tracking type.

The robot must be selected and then click on “Set Target object”.
Change Tracking type to “Tether”.



Top Camera & Tether Tracking type tutorial:

<https://youtu.be/hNvJNMnV9dM>



How to share your Top 3 video to us?

The participant needs to click on the link and fill the form.

Please be aware of your email, because in case there's a problem with your video or your results, we will contact you.

<https://forms.gle/W5jQHne6GUKkACKC6>