

**RULES**



## 1. Summary

The objective of STACK.IN is to create and/or program a robot that takes objects to certain areas of the track, in a time of 120 seconds, without the robot or the objects leaving the track while doing so.

All teams will solve the challenge live on the day of the event. This challenge will only take place at in-person events. All teams will be able to do up to 3 qualifying rounds.

Each object can have a different score, depending on the discharge zone and whether or not it is touching the track. There is NO time bonus in this challenge. Objects outside the track will have a negative score.

The competition is open to participants of any age. Each registered team can have a maximum of 3 members and a mentor. If all the 3 members are under the age of 18, the mentor must be 18 y/o or older and must act as the adult responsible for the team.

## 2. Registration

All the information regarding registration can be found in <http://robojam.live/>

## 3. Rules Clarification

All those circumstances not foreseen in this set of rules, will be up to the judges and/or the tournament staff to solve. They will have the final decision on it and cannot be appealed.

By registering the team, the team understands and accepts all the rules presented here.

In case of being disqualified, or not showing up to the event, there will be no reimbursement of any kind for the team.

Rules could be modified until the registration due date. However, if there is any need to clarify one of the rules before the event, the teams will be notified

Allied events that use RoboJam challenges may have differences in the application of our challenge rules and competition format, with prior authorization from the organization.

#### 4. Challenge Setup

The team is responsible to get and organize all the elements necessary to participate.

For virtual events, It is strongly recommended to check the internet access and bandwidth ahead of time, along with all the devices (laptop, tablet, Cell phone, etc.) the team will use during the challenge.

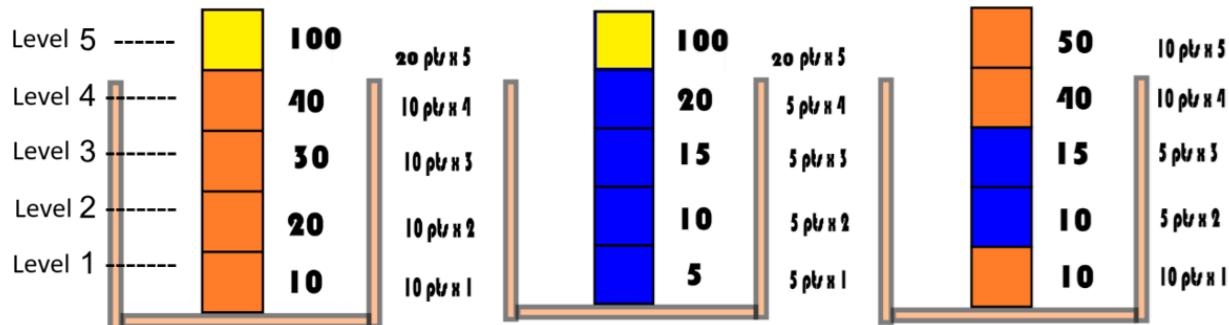
#### 5. Robot

- a) Any type of platform can be used. The design of the robot can have any design.
- b) The maximum dimensions of the robot are 30 cm long x 30 cm wide, with no height restriction. Anything detached from the robot is considered an extension of it. The robot must not exceed these measurements at any time.
- c) The robot must be Radio Controlled. Any type of signal can be used. (Infrared, wifi, bluetooth, etc.). Sensors cannot be used to guide the robot.
- d) The robot can manipulate the object in any way, either by pushing it or holding it with any element that restricts its movement.
- e) It must have a switch, to turn the robot on and off.
- f) The use of programming devices (computers, tablets, cell phones, etc.) or remote start devices during official rounds (classification or finals) is not allowed.
- g) We want to clarify, these requirements are mandatory in order for the robot to participate. In case a team starts competing without complying with any of them the round will be considered null and the team can even be disqualified.

#### 6. Competition

- a) The team will have the opportunity to carry out practice rounds before carrying out their qualification rounds, for this they must appear at the time designated for this purpose.
- b) All teams will have the opportunity to carry out 3 qualifying rounds, which they must do in a maximum time of 2 hours. If they fail to do them, they lose that opportunity, and only the rounds completed are counted.
- c) Each round will have a maximum of 2 minutes (120 seconds).
- d) For classification purposes, the round with the best score of the 3 is counted.

- e) The robot must take the objects to the unloading areas. There are 4 blue, 4 orange and 2 golden objects. You can only have a maximum of 5 cubes per container. If there are more than 5, only the 5 with the lowest scores will be taken into account. Only one gold cube per container will be taken into account. If there are two golden cubes in the container, the second golden cube will not count, even if there are 5 or fewer cubes inside.
- f) Each blue or orange object that is inside the track at the end of time, that is not in the contained zones, will have a score of 1 point. The golden ones will be worth 5 points.
- g) Objects placed within the contained areas will have a score of 10 points if the area corresponds to the color of the object or 5 points if it is not the color of the object. Golden objects will be worth 20 points in any contained area.
- h) Additionally, if it is at level 2 it will be multiplied by 2, if it is at level 3 it is multiplied by 3, at level 4 it is multiplied by 4, and at level 5 it is multiplied by 5.
- i) The robot cannot be touching any of the objects in the unloading zone at the end of the time. If you are doing so, these objects will not be taken into account

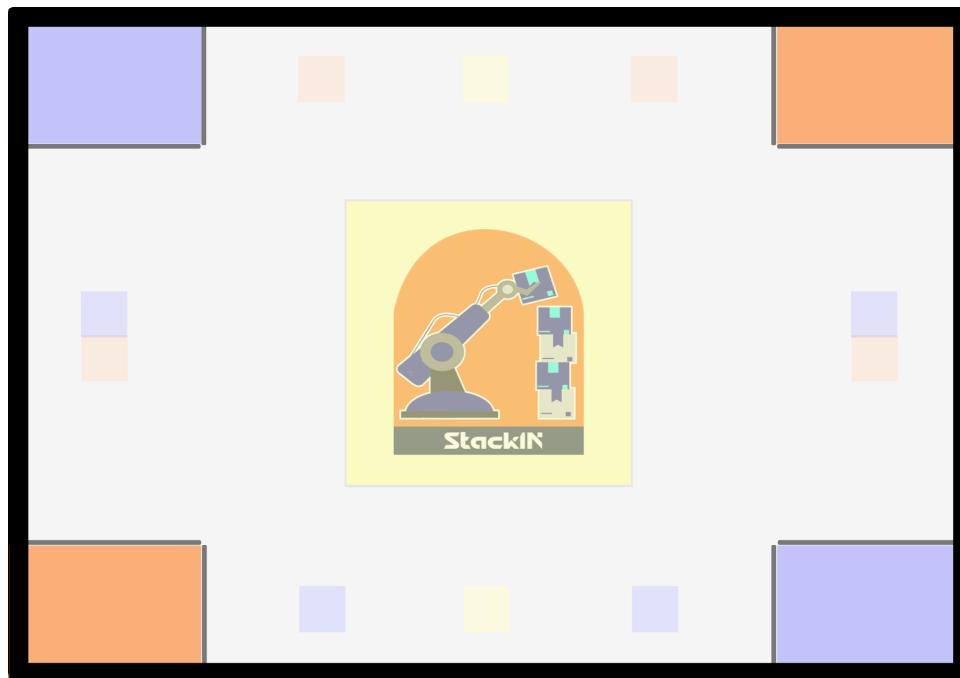


Score of objects in the unloading area. Example of all the cubes in their color (left) + 1 gold, the cubes in an area of another color (center) + 1 gold and the cubes of combined color in a contained area (right).

- j) If an object goes completely off the track, it will have a score of -1, which will be subtracted from the final score of the round. Gold cubes outside the track will have a score of -5.
- k) At no time can participants touch any of the objects or the robot, once the round begins. If they do, the round is over.
- l) The robot must be placed in the assigned center zone on the track. The time ends at the end of 120 seconds. If the robot leaves the track, its round ends, but the points it had so far are added.
- m) If ALL the cubes are placed in the unloading zones before the time runs out, each remaining second on the clock will be counted as an additional point.

- n) The best time , from the qualifying rounds carried out by the team, will be chosen. In the event of a tie for the last qualifying position, the rounds of the teams in question will be averaged to determine who passes. The best 8 teams will go to direct elimination by brackets {1-8, 3-6} & {2-7,4-5}, until the podium winners are reached. If there are 8 or fewer teams participating, the 4 teams with the best points will go directly to the semifinals.
- o) In case of a tie in the final rounds, a single additional tiebreaker round will be held between the teams in question. The judges and/or the organizer will determine under what conditions it will be done, right at that moment.
- p) If the team in final instances is not yet ready, it will continue with the next bracket (giving a minimum time of 2 minutes for the team to organize), and it will be called again at the end. If the team is not ready when called in the second instance, the round is given to the other team.

## 7. Track



*The small boxes show the initial position of the objects and their color. There are two blue zones and two orange dropping zones. The robot will be in the central box.*

- a) The track has a size of 100 x 70 cm (up to +- 10 cm in each size due to material sizes in some countries). The track must be raised, with a height of at least 5 cm from the floor.

- b) There are 2 blue dropping zones on the track and 2 orange dropping zones with a size of 20 x 14 cm.
- c) Contained dropping areas will have an exterior wall 10 cm high and a maximum of 1 cm thick.
- d) 10 cubes of 5 x 5 x 5 cm (+- 2mm) will be used as objects with a maximum weight of 100 gr each. These will be located at the beginning of each round in the marked position on the track.

## 8. Penalties

Teams may receive a time penalty for not complying with any of these regulations. The points penalties are -50 points for each foul.

The judges and / or the staff can disqualify any team, at any time, for any fault that in their opinion is serious and is against the respect, ethics and education that is sought in the event. This includes, but is not limited to, any of the following situations:

- a) Fraud in the information shared with the organization or in the competition
- b) Dishonesty in the challenge, deliberately breaking the rules.
- c) Disrespect to judges or participants, during the competition or in the comments during the live streaming.

## 9. Claims

- a) The captains can file a claim in front of the judges, in case of having any disagreement.
- b) The final decision on any claim is at the discretion of the judges and / or the organizer, who are considered the last instance in the resolution of this situation and their decision is final, cannot be appealed.

## 10. Prizes

The first 3 places will be awarded with credentials for a ROBOJAM event. All other teams can request participation certificates.

Other additional prizes, such as cash prizes or sponsor gifts, will be assigned and communicated by the organizer at his own discretion, after the registration due date, but before the competition date.



**Any question, please send us a message to**

**[Info.RoboJam@gmail.com](mailto:Info.RoboJam@gmail.com)**

- - RoboJam is a registered trademark in Mexico, under IMPI registration 2671192. Its use by third parties must be explicitly authorized in writing by prior agreement. -
- - The RoboJam challenge regulations are a written work, protected by copyright, therefore any modification, distribution or use by third parties must be explicitly authorized in writing by prior agreement. -
- - -