

Welcome to National Robotics Competition 2023

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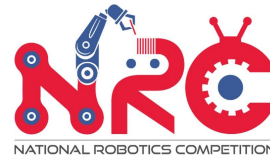


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NRC Regular Category 2023

Upper Primary | Secondary

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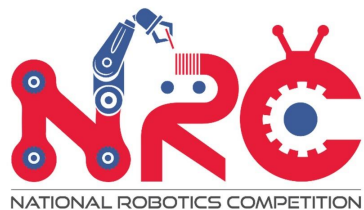


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Agenda for the Webinar

- Frequently Asked Questions (FAQs)
- Question & Answer (Q&A) Session
- Important Dates

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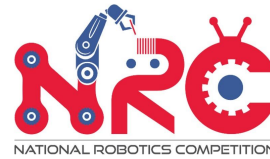


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FAQ – Regular Category

Upper Pri & Sec

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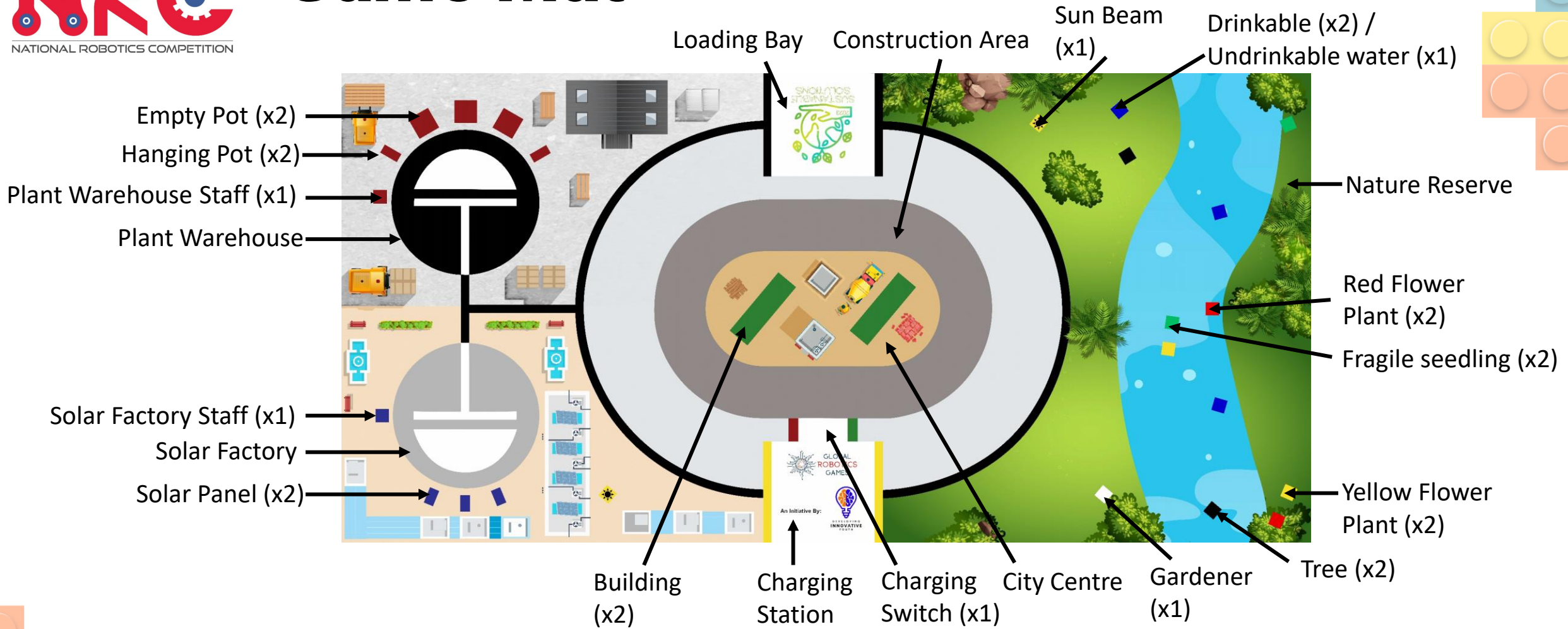
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Game Mat



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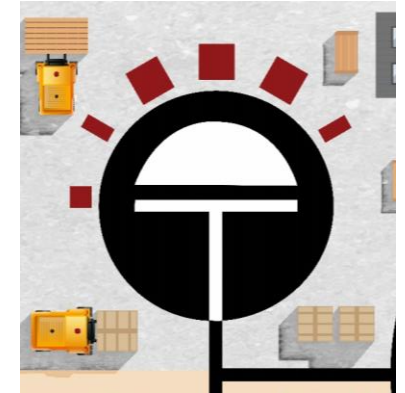


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Common Questions (I)

S/N	Topics	Questions	Answers
1	Playfield Mat	Where is the warehouse located?	The warehouse is located plant warehouse (the black circle).
2	Playfield Mat	Is the building in the city centre secure to the playfield?	Yes, the buildings & charging station are secured to the playfield mat. There will be penalty for moved and damages Buildings



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Common Questions (II)

S/N	Topics	Questions	Answers
3	Robot	<p>If robot can sweep back all the plants, water, trees, pots, hanging pots and solar panel back to loading bay, what can we touch by hand?</p> <p>What if the props that the robot carrying is partially touching the loading bay? Or if the robot is partially in but props are not.</p>	<p>If the robot is touching the loading bay and has come to a complete stop, the teams can proceed to unload the Fragile seedling, solar panel, red flower plants, and yellow flower plant and hanging pots that are on the robot even if they are not partially in the loading bay.</p> <p>OR</p> <p>If the props are not on the robot, teams can only physically touch the Fragile seedling, solar panel, red flower plants, and yellow flower plant and hanging pots when they are completely in the loading bay.</p> <p>Note: Other props that were brought into the Loading Bay cannot be physically manipulated by hand by the teams.</p>

Common Questions (III)

S/N	Topics	Questions	Answers
4	Robot	After the robot has come to a complete stop within the loading area, is the team allowed to physically move the robot before resuming the run?	<p>Once the robot comes to a complete stop and it is partially/fully within the loading bay,</p> <ul style="list-style-type: none"> Teams are allowed to touch their robot or switch programs by hand Teams are allowed to realign their robot and is only allowed to start off again from the loading bay, with the robot completely within the loading bay. They should only start their robot after all props have been moved to where the team requires (i.e. if the team is still rearranging the props onto the Construction Equipment, their robot should not start until they're done.) If the robot is in motion and the team is still handling the props, there may be penalties. Do note that teams are not allowed to reprogram or enter data into the robot at any point of the robot run.

Common Questions (IV)

S/N	Topics	Questions	Answers
5	Robot	Does it mean that the robot size can be of any size when we change the mechanism in the loading bay?	No. Teams are only allowed to switch program and reposition them after the robot comes to a complete stop and it is partially in the Loading Bay. Teams are not allowed to change the robot mechanisms.
6	Robot / Props	When the potable water, human staff, trees props and solar panel are all pushed into the loading bay, when the students reposition their robot inside the loading bay, can they rearrange these props onto/with the robot? The rules state that the robot operator can use their hands to manually shift the fragile seedlings, red, yellow flowerpots and hanging pot onto the construction equipment, but what about other props?	No. Teams are not allowed to touch the other props (Gardener, Plant Warehouse Staff, Solar Factory Staff, Drinkable Water, Undrinkable Water, Trees, Empty Pot and Sun Beam) that are brought into the Loading Bay by the robot. These props cannot be physically manipulated by hand by the teams.

Common Questions (IV)

S/N	Topics	Questions	Answers
7	Construction Equipment	<p>If the Construction Equipment is activated by the robot to extend, and it is touching the building and the props, would points be awarded?</p> <p>Are we allowed to leave the construction equipment touching the building?</p>	<p>If the Construction Equipment is activated but the mission (s) is not accomplished, no points are awarded.</p> <p>After the start of the match, teams' robot is allowed to push their construction equipment to be touching the building. Points are awarded based on the completion of the tasks listed in the scoring table. The Construction Equipment can be touching the building at the end of the run, and still score points provided the tasks are completed.</p> <p>Note: At the start of robot run, construction equipment cannot be touching the building.</p> <p>And bonus points are awarded when you bring the CE to the warehouse.</p>

Common Questions (V)

S/N	Topics	Questions	Answers
8	Construction Equipment	I have the construction equipment that is like a slope. Can I score points directly by loading the prop by hand onto the construction equipment and it slides into the designated area?	<p>Yes, you may. The end state of the required props will need to be in their designated location/orientation to score points.</p> <p>Do note that the construction equipment can only be touching the building during the robot run and with the action from the robot.</p> <p>To gain score for the missions related to the props on the building, this is the order:</p> <ol style="list-style-type: none"> 1. Load the required props on the construction equipment first 2. Then the robot activate/move the construction equipment.

Common Questions (VI)

S/N	Topics	Questions	Answers
9	Construction Equipment / Props	For the city management tasks, can the props (Fragile Seedlings, Red Flower Plants and Yellow Flower Plants, and the Hanging Pots only) be partially supported by the construction equipment as well as the relevant parts of the building to score points?	<p>No. The solar panel will need to latch on the top level of building.</p> <p>The yellow flower plant and hanging pot will need to be hanging at the plant wall of the building (can be of any level as long the base of the hanging pot is not touching the playfield mat)</p> <p>The red flower plant will need to completely in the mid-tier of the building.</p>
10	Construction Equipment / Props	For the fragile seedlings, red flower plants and yellow flower plants, are we given full points if we put them all in one building?	No, the scoring will be given to 1 prop only in the require location for one building. If there are two of the same prop in one building, only 1 score will be given.

Common Questions (VI)

S/N	Topics	Questions	Answers
11	Construction Equipment	Can the construction equipment come in 2 or more separate pieces as long as both are operated by a single robot?	Yes. Each team can place multiple construction equipment in the construction area. The base of the construction equipment will need to be within the construction area at the start of the robot run.
12	Construction Equipment / Props	Can the plant be toppled over in the building and still count?	<p>Full score will only be given when the props are standing upright at the required location.</p> <p>The criteria is when they are in/on the building, they will need to be standing upright to be consider as in/on the building.</p>

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Common Questions (VII)

S/N	Topics	Questions	Answers
14	Charging Station	Regarding the charging switch, must we complete other tasks before turning it on, or do we have to attempt the other missions?	The Charging Station mission (Mission 5.5) have to be the last mission of the entire attempt.

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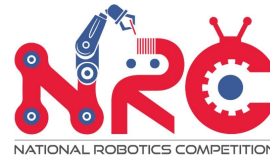
Important Dates

		Dates	Time	Remarks
	Trial Playfield	12 th June – 4 th August	9am – 430pm	
Upper Primary	Onsite Presentation	22 nd , 23 rd & 24 th Aug 2023	9am – 5pm	Subjected to changes
	Onsite Competition	5 th & 6 th Sept 2023	9am – 5pm	
Secondary	Onsite Presentation	28 th & 29 th Aug 2023	9am – 5pm	
	Onsite Competition	6 th & 7 th Sept 2023	9am – 5pm	
	Finals & Award Ceremony	9 th Sept 2023	9am – 5pm	

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Question & Answer

If you are shy, you can also write in to

NRC@science.edu.sg

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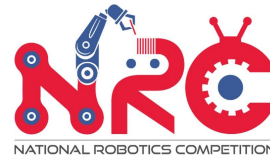


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