










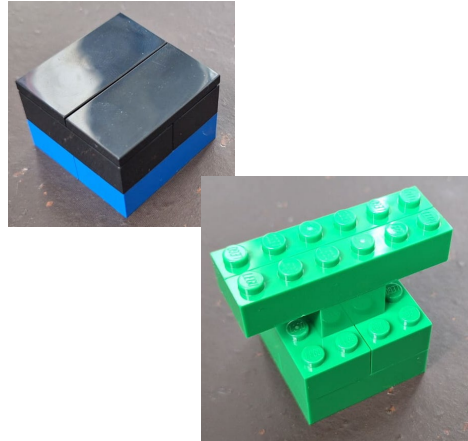


## AFTERNOON CHALLENGE – ELEMENTARY

The following game objects are used:

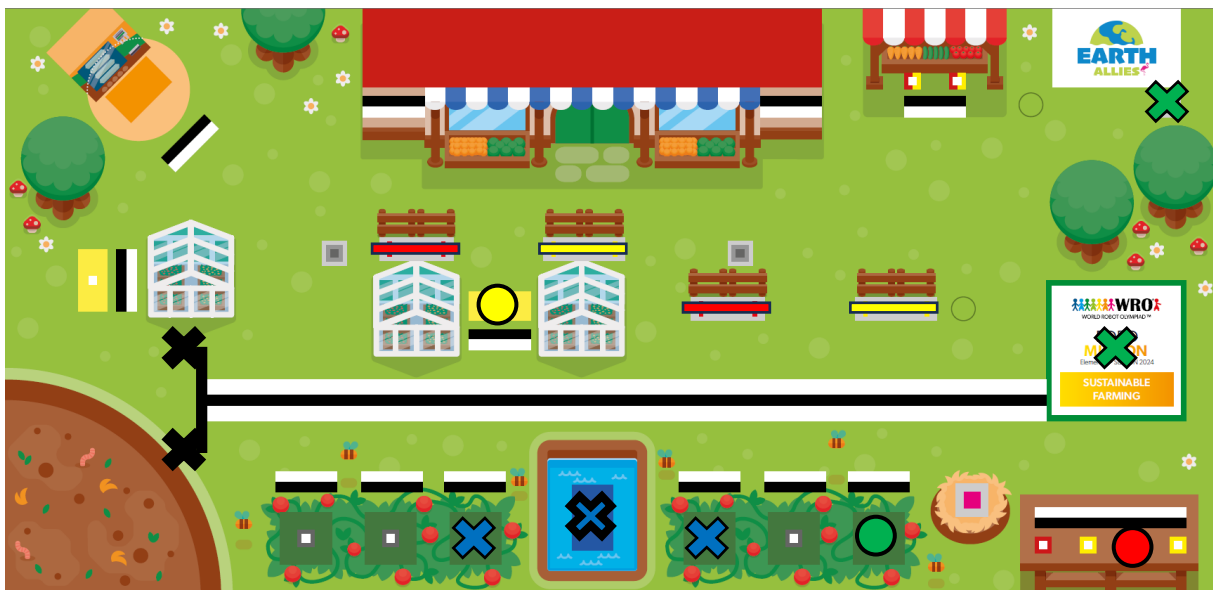
- 2 water objects 
- 1 contaminated water object 
- 2 seedlings 
- 2 earth blocks 
- 1 red vegetable 
- 1 yellow vegetable 
- 1 green vegetable 
- 1 water tower 
- 2 greenhouses 
- 2 red fences 
- 2 yellow fences 



Please remove all other game objects.

### YOUR MISSION

The robot must start in the starting area as usual. The game objects are placed on the playing field as shown below:



The greenhouses, the water tower and the fences are in the same places as always.  
 The contaminated water is in the upper part of the water tower.  
 The seedling in the starting area can be placed in, on or next to the robot within the starting area.

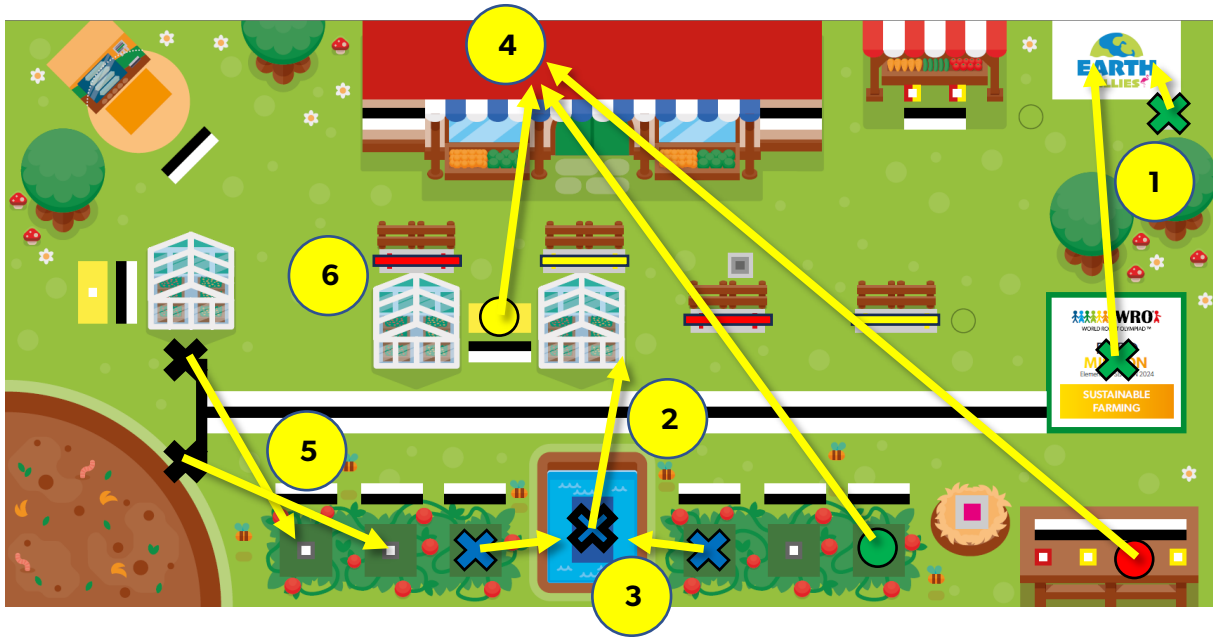
### TASKS

- **Sub-task 1:** Place the seedlings into the white area with the “Earth Allies” logo. One of the seedlings is directly in front of this zone, the other one is placed by the team inside the starting area together with the robot. Each seedling that is planted correctly is worth 5 points. This sub-task is worth **10 points maximum**.
- **Sub-task 2:** Remove the contaminated water from the water tower. The water is considered removed when it no longer touches the tower or the (light or dark) blue surface. This sub-task is worth **10 points**.
- **Sub-task 3:** Refill the water tower with fresh water. To do that, you must bring the two water objects to the tower in such a way that they touch the (dark or light) blue area around it. You receive 8 points for each (non-contaminated) water object that touches this area. This sub-task is worth **16 points maximum**.
- **Sub-task 4:** Prepare a salad and bring it to the market. You receive 8 points for each vegetable that you bring to the red market area. You receive an additional 6 points if your salad contains vegetables of each color. This sub-task is worth **30 points maximum**.
- **Sub-task 5:** Bring the composted earth into the garden. You will receive 8 points for each earth block which is inside any of the green garden squares. Only one earth block per square counts. This sub-task is worth **16 points maximum**.
- **Sub-task 6:** Take care of the obstacles. You receive 2 points for each fence that is neither damaged nor displaced. This sub-task is worth **8 points maximum** if you received any points in the sub-tasks 1 – 5.

Unless otherwise mentioned, no partial points are awarded if the objects are not completely inside their target area or if they are damaged.

Please note:

The robot can solve the sub-tasks in any order you like.



**Good luck, and enjoy solving the Afternoon Challenge!**

## GENERAL RULES

The maximum time for a competition run is 120 seconds. The maximum size of the robot is 25 cm x 25 cm x 25 cm.

You have the chance to show 4 competition runs (“runs”) to the judge. There are two deadlines, one at **15:45** and one at **17:00**. You can show two runs before either deadline. For each deadline, the better run of the two is counted towards the final result. The scores and the times of these two runs will be added to the score and time you already have from the normal RoboMission challenge. If you cannot show a run before a deadline, this will be scored as 0 points / 120 seconds.

Please inform the judge in time that you want him or her to judge a run.

## AFTERNOON CHALLENGE – ELEMENTARY

Team: \_\_\_\_\_ Run: \_\_\_\_\_

Tasks	Points possible	Points awarded
<b>Sub-task 1 – Plant the seedlings</b>		
5 points for each seedling that is completely inside the «Earth Allies» area.	<b>10</b> (5 + 5)	
<b>Sub-task 2 – Remove the contaminated water from the water tower</b>		
10 points if the contaminated water no longer touches the tower or the blue area.	<b>10</b>	
<b>Sub-task 3 – Refill the water tower</b>		
8 points for each water object that touches the blue area around the tower.	<b>16</b> (8 + 8)	
<b>Sub-task 4 – Salad in the market</b>		
8 points for each vegetable that is completely inside the red market area.	<b>24</b> (8 + 8 + 8)	
6 points extra if all three vegetables are inside the red market area.	<b>6</b>	
<b>Sub-task 5 – Put the compost earth into the garden</b>		
8 points for each earth block that is completely inside a green garden square (only one per square counts).	<b>16</b> (8 + 8)	
<b>Sub-task 6 – Fences (only if points were awarded in sub-tasks 1 to 5)</b>		
2 points for each fence that has not been damaged or displaced.	<b>8</b> (2 + 2 + 2 + 2)	
<b>Total</b>	<b>90</b>	
<b>Time in seconds</b>	<b>Max. 120</b>	

Signature Team:

Signature Judge: