



UNITED ROBOTIC OLYMPIAD

RoboMission

ElementaryGameRules

Season 2026



MY ROBOT MY FRIEND

GreenBot

Official Game Rules for the URO International Final. Version: 2026

(Note: Rules for local URO events may vary!)



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PART ONE – GAME DESCRIPTION

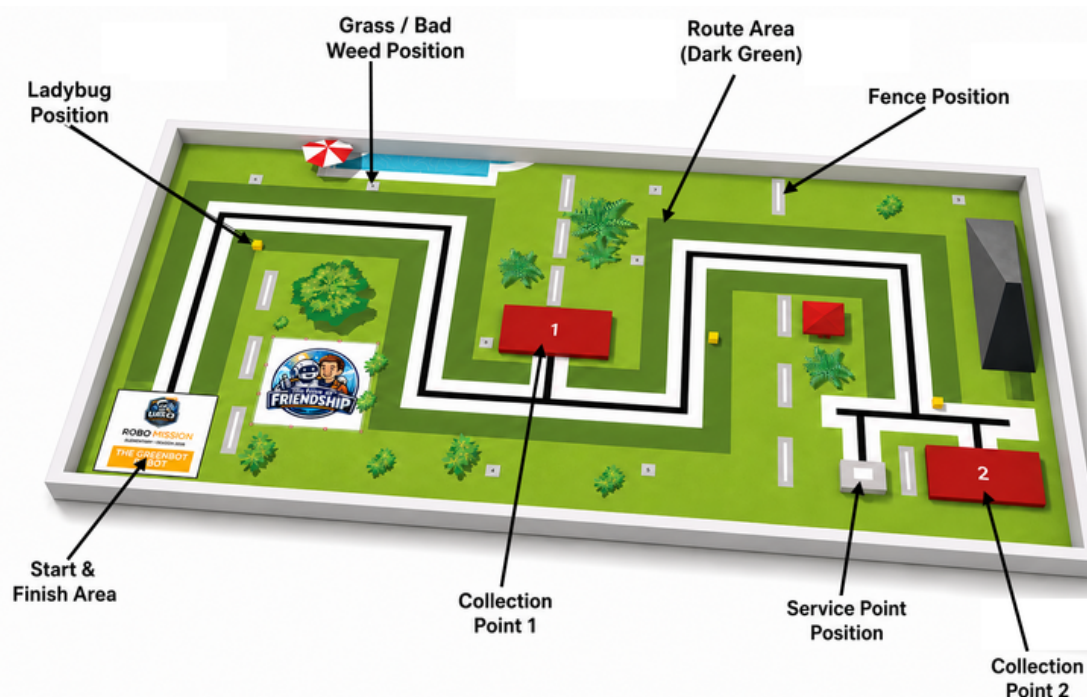
1. Introduction

There are countless ways robots can be utilized in our homes and everyday lives. One notable example is garden robots, which can carry out a variety of tasks. These robots can clean pools, plant seeds, or water flowers.

In the Elementary game, the robot is responsible for mowing the grass and removing unwanted weeds. Simultaneously, it must be cautious of ladybugs in its path and ensure they are safely moved away.

2. Game Field

The graphic below illustrates the game field, highlighting its various areas.



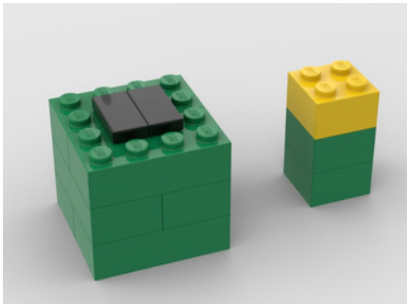
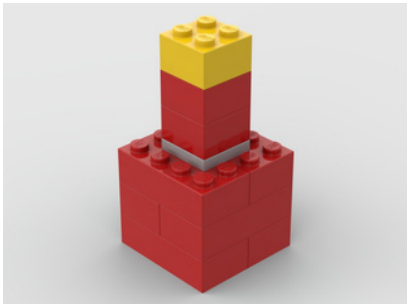
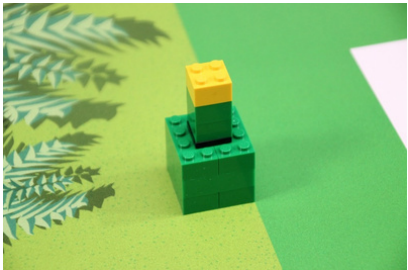
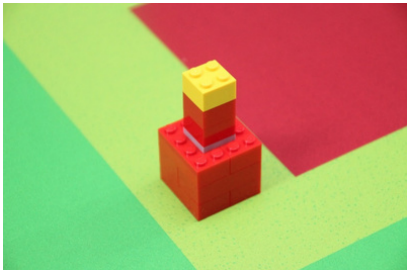
If the table exceeds the size of the game mat, position the mat against the wall, aligning it with both sides of the starting area.

For detailed specifications regarding the table and game mat, refer to the URO Robo Mission General Rules.

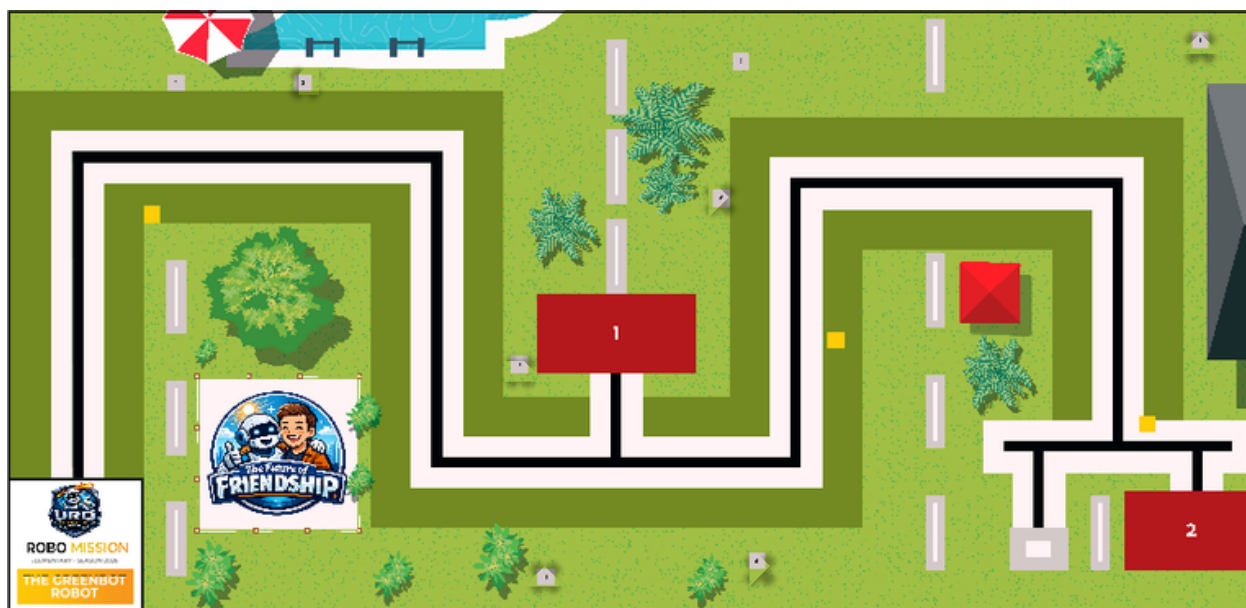
3. Game Objects, Positioning, Randomization

Grass (3x) & Bad Weeds (3x)

In each round, three grass elements and three undesirable weed elements are randomly positioned within six of the eight grey spaces on the game field, leaving two grey positions vacant.

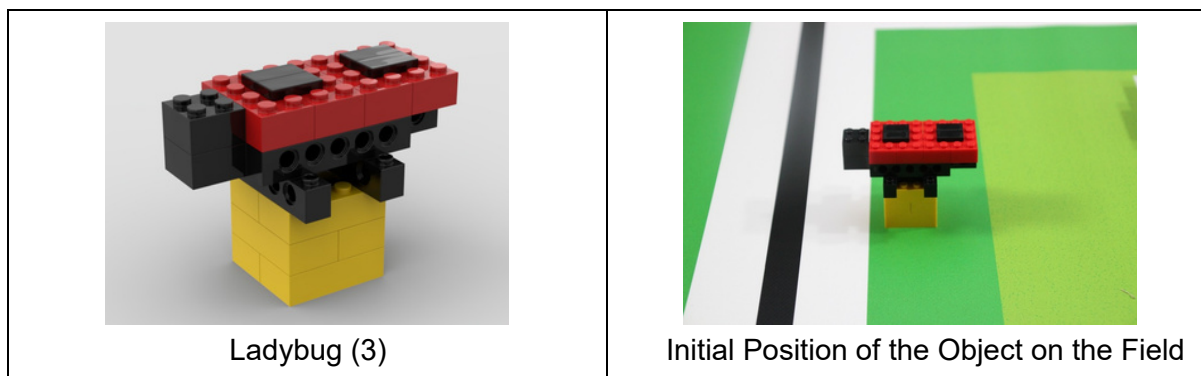
 Grass The grass element is made up of two components: a base on the left and a top on the right.	 Bad Weeds The bad weed consists of just one component, where the base and top are intertwined.
 Starting Position of the Object on the Field (on grey area)	 Initial Position of the Object on the Field (on grey area)

One possible randomization you can see here (green X for grass, red X for bad weed):



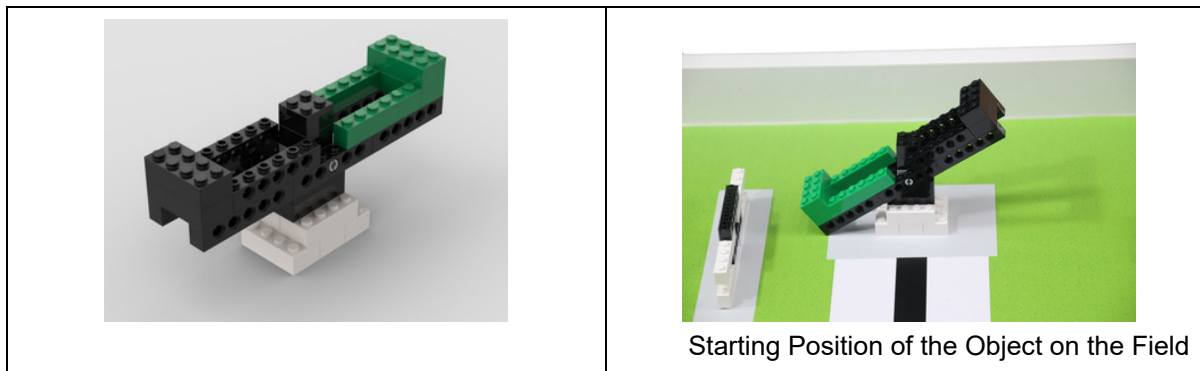
Ladybugs (3x)

Three ladybugs are consistently positioned on the yellow sections of the field. They always face left, towards the starting area.



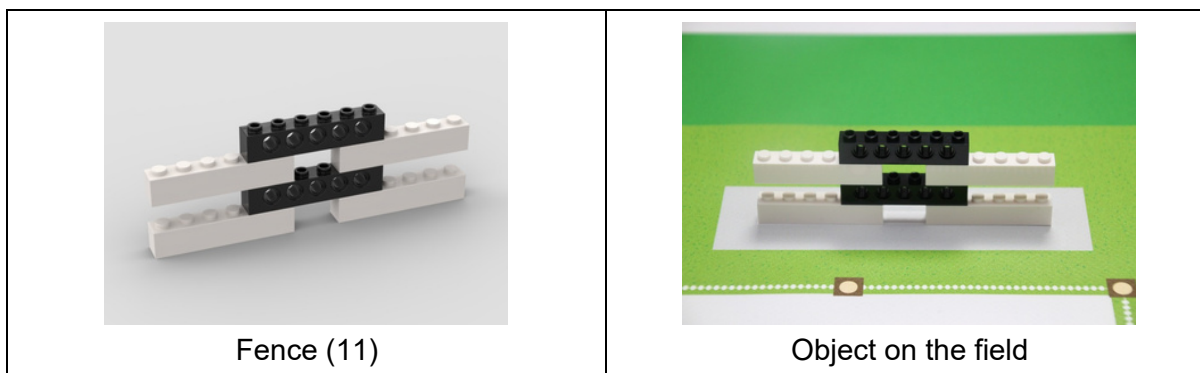
Service point (1x)

The service point is positioned within the white rectangle located inside the grey area. It is consistently arranged so that the green section is on the left and at the bottom. During missions, the green side must be elevated.



Fences (11x)

There are eleven fences in the field that must remain undisturbed and intact. Each fence is positioned along the white line within a designated grey area.





4. Robot Missions

For a clearer understanding, the missions will be detailed across several sections.
The team has the flexibility to determine the sequence in which they will tackle the missions.

4.1 Push Ladybugs Away

The gardening robot's mission includes cutting grass and eliminating undesirable weeds. To achieve this, the robot must gently push the ladybugs away from its designated path.

- Full points are awarded when the base of a ladybug is positioned outside the route area (the dark green area marked by the black line with white surrounding) and is standing upright.

4.2 Cut High Grass

One of the primary functions of the gardening robot is to trim grass. It should detect the grass elements located on the grey areas and proceed to cut them, effectively removing the tops.

- Full points are awarded if the top of the grass is no longer visible above the base, while the base remains in contact with the grey area.

4.3 Collect Bad Weeds

Another essential task for the gardening robot is to gather bad weeds. The robot should identify these weeds situated on the grey areas and transport them to a designated collection point.

- There are two collection points (brown areas) on the field. Points are granted if a bad weed element is completely within one of the collection points. Additional points are awarded if the robot delivers the weeds to collection point 2, located at the end of the game field.

4.4 Activate Service Point

After successfully navigating through the garden, the gardening robot should activate the service point. This action will send a notification to the user's smartphone, confirming that the gardening task has been completed.

- Points are awarded if the service point element changes from black to green (with green on top), at least nine fences remain undisturbed on the field, and the service point is entirely located within the grey area.

4.5 Park the Robot

The mission is considered complete when the robot returns to the Start & Finish area, comes to a stop, and ensures that its chassis is fully (from a top view) within the Start & Finish area (cables may extend outside of this area).

4.6 Get Bonus Points

Bonus points will be given for maintaining the original position of the fences without any movement or damage.



5. Scoring

Definitions for the scoring

“Completely” refers to a game object that is solely in contact with the designated area, excluding the black lines.

Tasks	Each	Total
Save Ladybugs		
A ladybug is situated entirely outside the designated route area and is standing upright.	5	15
Cut High Grass		
The upper part of the grass is no longer in contact with the grass element, while the base of the grass element remains in contact with the grey area.	7	21
Gather unwanted weeds.		
The negative weed element is entirely located within Collection Point 1.	9	27
The undesirable weed element is entirely located within collection point 2.	12	36
Activate Service Location		
Service point is properly established, with a minimum of nine fences in place, and the base of the service point is entirely within the designated grey area.		17
Park the robot.		
Robot Halts in the Start & Finish Area (Only applicable if other points, excluding bonus points, are assigned.)*		14
Get bonus points		
Fence that is not moved or damaged	2	22
Maximum Score		125



Scoring Sheet

Team name: _____

Round: _____

Tasks	Each	Total	#	Total
Save ladybugs				
Ladybug positioned upright and entirely outside the designated route area.	5	15		
Cut high grass				
The upper part of the grass is no longer aligned with the base, while the grass element's base continues to make contact with the grey area.	7	21		
Gather Unwanted Weeds				
The undesirable weed element is entirely located within Collection Point 1.	9	27		
The undesirable weed element is entirely located within Collection Point 2.	12	36		
Activate service point				
Service point has been properly established, with a minimum of nine fences in place, and the base of the service point entirely located within the gray area.		17		
Place the robot .				
Robot stops in the Start & Finish Area (only if other points, not bonus, are assigned)		14		
Get bonus points				
Fence that is not moved or damaged	2	22		
Sum of Game Score		125		
Surprise Rule				
Total Score in this run				
Time in full seconds				

Signature Team

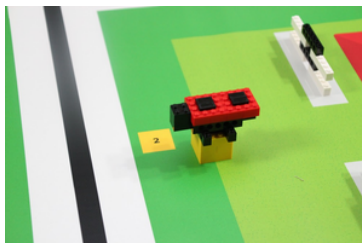
Signature Judge

Scoring Interpretation

Ladybug is positioned upright and entirely outside the designated route → 5 points area.



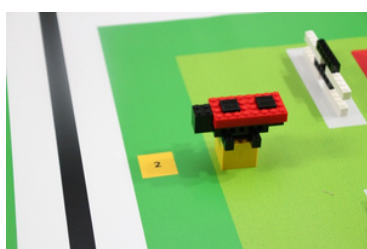
5 points



0 points (partly outside)



0 points (not standing)



5 points (base outside)

The top of the grass is no longer aligned with the base, while the base of the grass element continues to make contact with the grey area. → 7 points each.



7 points



7 points



7 points (only touching from the side not on top)

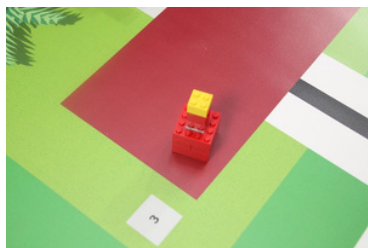


0 points (lying on top)



0 points (base not touching)

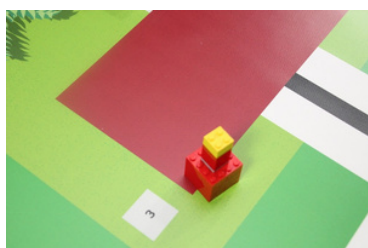
The undesirable weed is entirely in collection point 1. → 9 points each



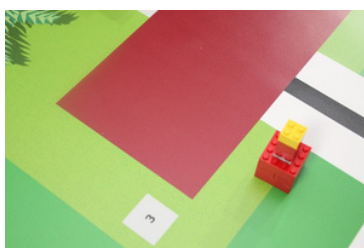
9 points



9 points (OK if not standing)



0 points
(not completely inside)



0 points
(not inside)

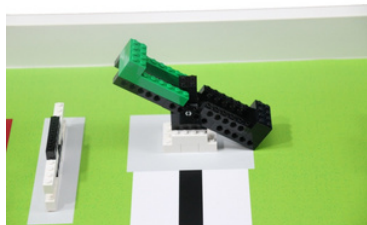
The undesirable weed element is entirely located within Collection Point 1, with a total of 9 points each.



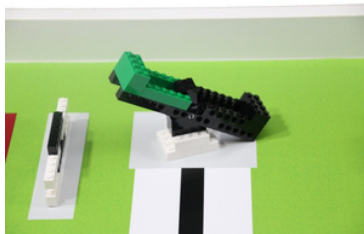
12 points

All the circumstances outlined for Collection Point 1 are also applicable to Collection Point 2.

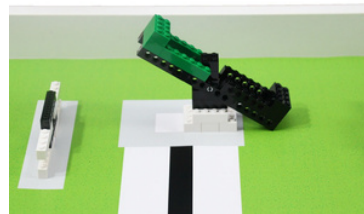
Service point is correctly established, with a minimum of nine fences in place and the base of the service point entirely within the designated grey area, earning a total of 17 points.



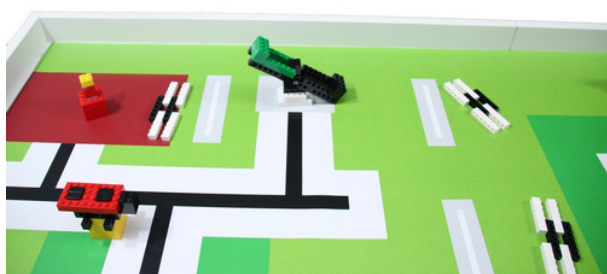
17 points



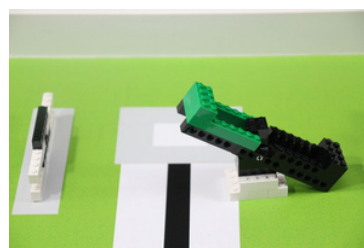
17 points (moved inside grey area is OK)



17 points, the base of the service point is still inside



0 points (9 fences must be OK, here are 3 already outside of their areas)



0 points (moved outside grey area)

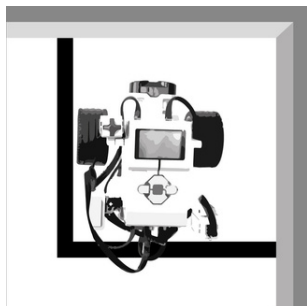


0 points (object turned around, green is not on top)

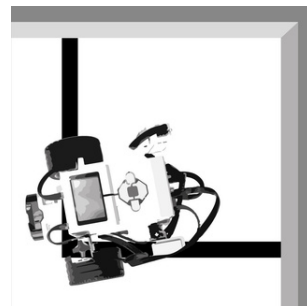
The robot halts in the Start & Finish Area (provided that other points, excluding bonus points, are designated) for a total of 14 points.



The projection of the robot is completely inside the start/finish area.



The projection of the robot is completely inside, and cables are out. That is still OK.



No points if the projection of the robot is not in the start/finish area.

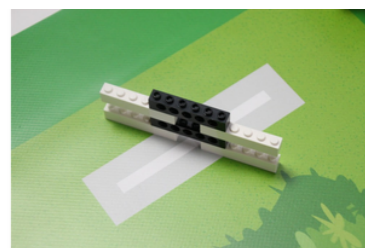
Fence not moved or damaged → 2 points each



2 points, not moved.



2 points, only moved inside the grey area.



0 points, moved outside of grey area.



0 points, moved outside of grey area.

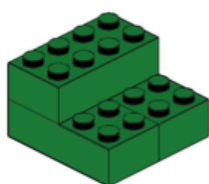
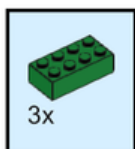


0 points, damaged.

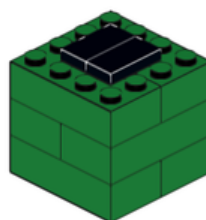
PART TWO – ASSEMBLY OF GAME OBJECTS

Grass (3x)

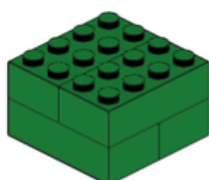
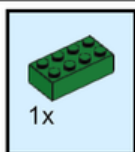
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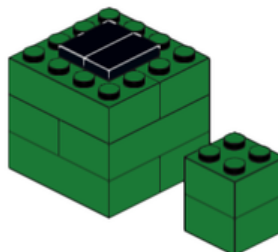
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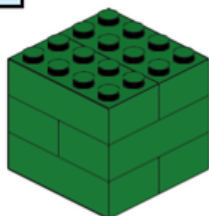
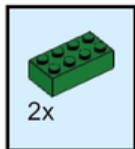
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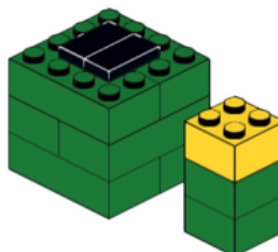
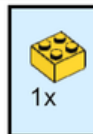
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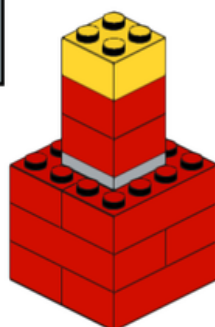
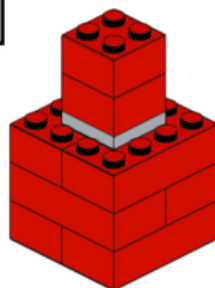
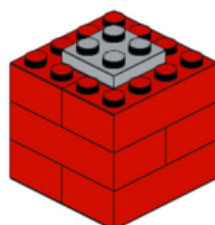
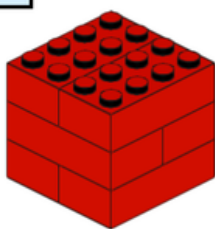
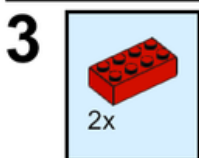
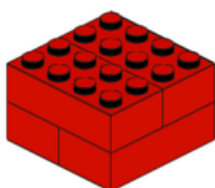
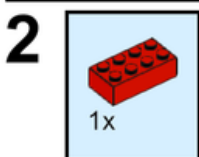
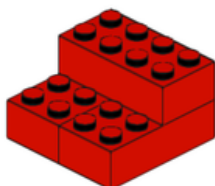
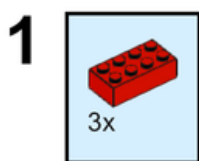
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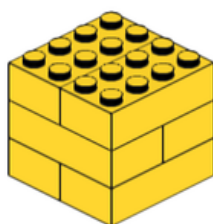
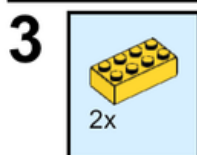
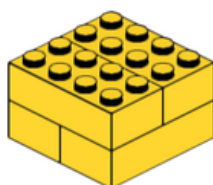
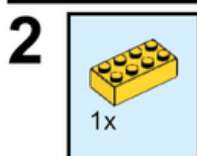
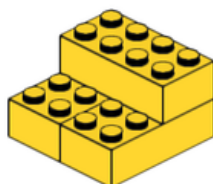
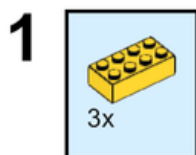
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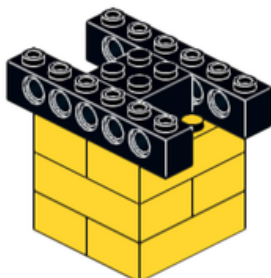
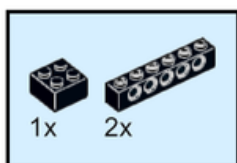
Bad Weeds (3x)



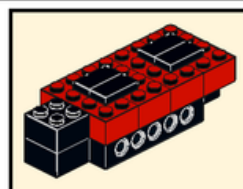
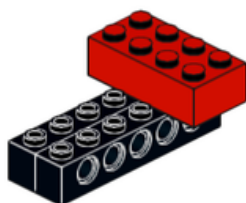
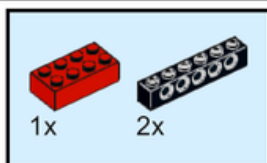
Ladybug (3x)



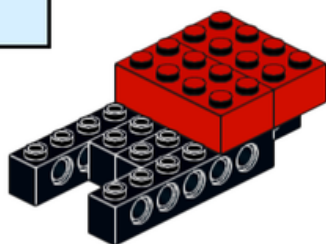
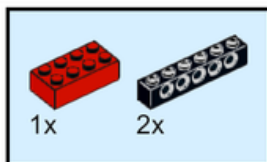
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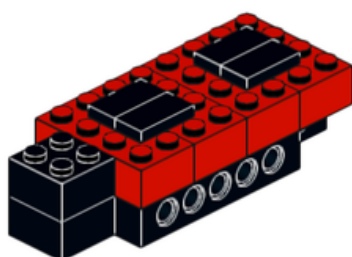
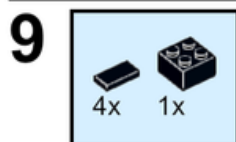
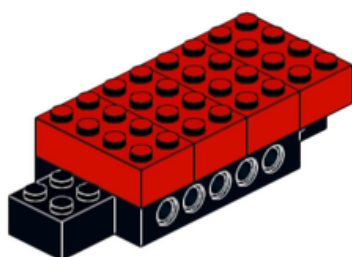
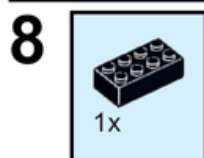
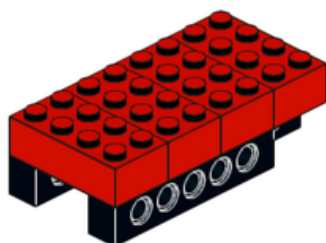
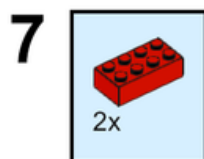


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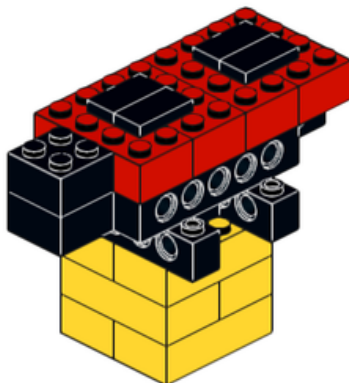
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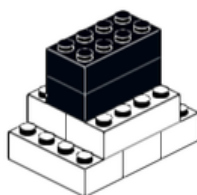
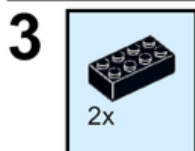
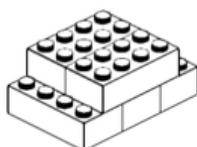
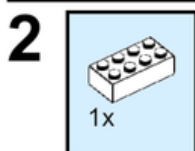
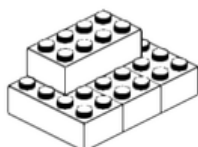
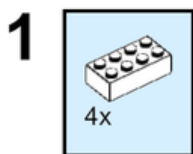




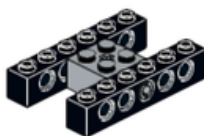
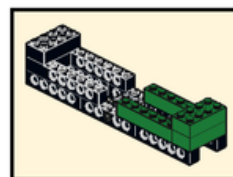
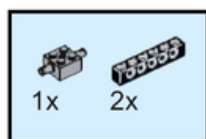
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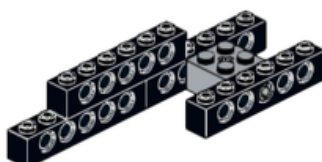
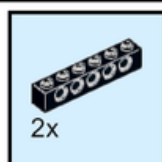
Service point (1x)



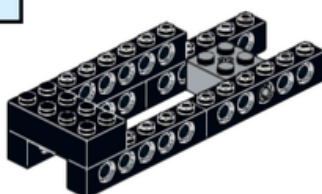
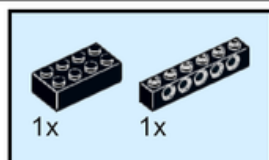
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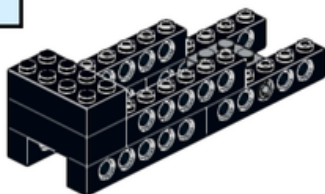
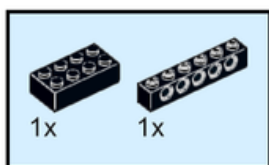
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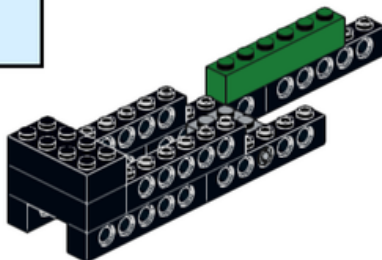
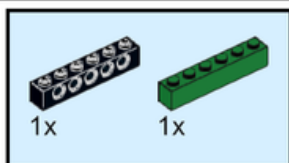
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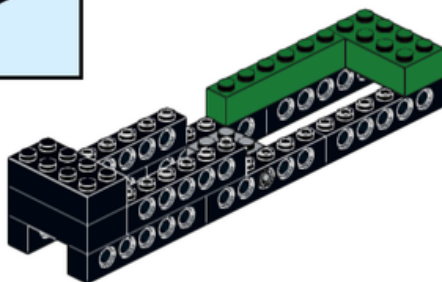
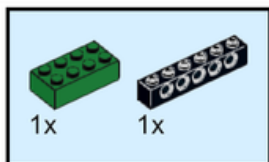
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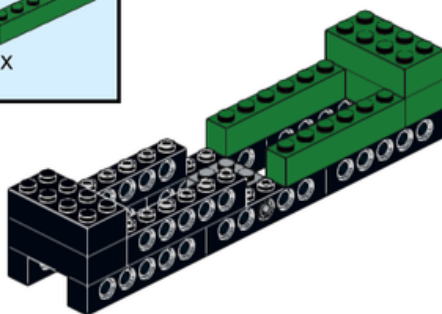
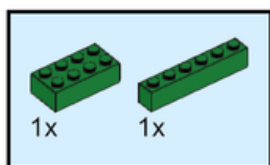
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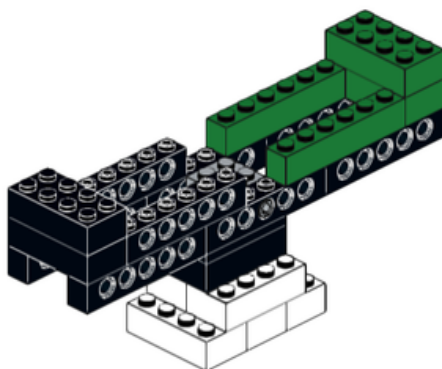
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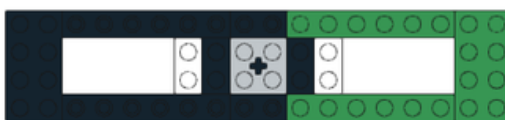
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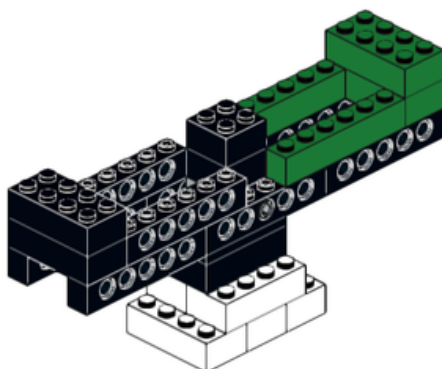
11



12



13



Fence (11x)

