

ENJOY AI 2024
INTERSTELLAR JOURNEY

CLOSING CEREMONY OF SPORTS



Scoring Rules

Objectives:

1. Get familiar with the competition rules and learn the criteria for penalties
2. Find out how to win more points



5+

Review



In the previous lesson, we learned how to fix the components of our robot. Let's have a review!



Review

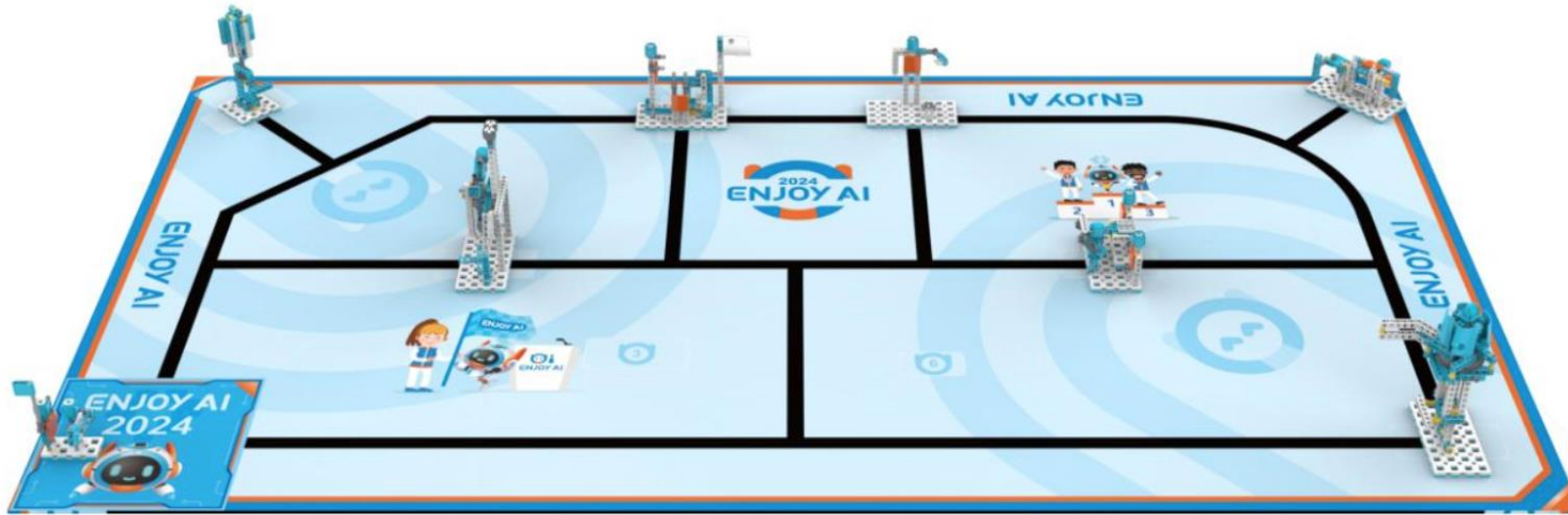
Troubleshooting

1. What are the typical structural issues of our robot?
2. What tools do we need to observe grayscale values during grayscale detection?
3. When do we need to reinforce our robot, and how to do that?

Challenges



Challenges



Now that we are familiar with the maintenance of our robot, let's learn how to win points in this competition!



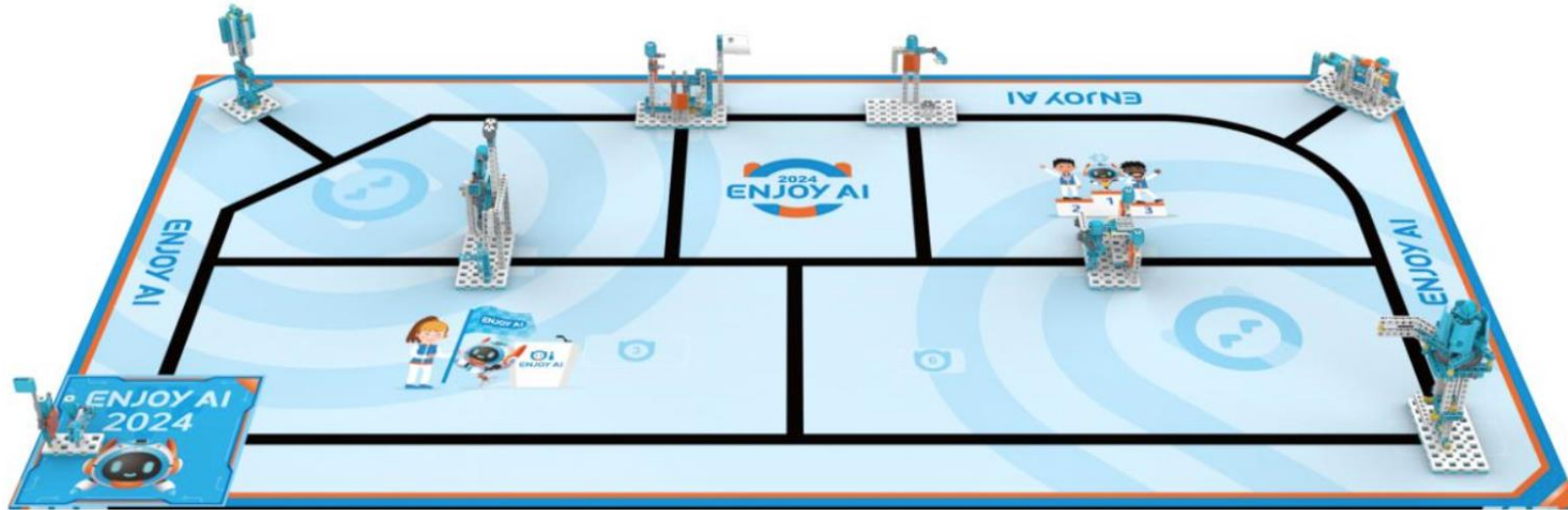
Challenges

Scoring Rules

1. Read the scoring rules for each task.
2. Learn about the factors that may affect the scoring.
3. Have a deep understanding of the scoring rules.

Challenges

Competition Environment



Field size: 216 x 120 cm

Factors that we must consider: whether the field is encircled by a fence, the illumination condition of the competition site, and whether the field ground is smooth

Task Scoring Rules



Challenges

Firework Display

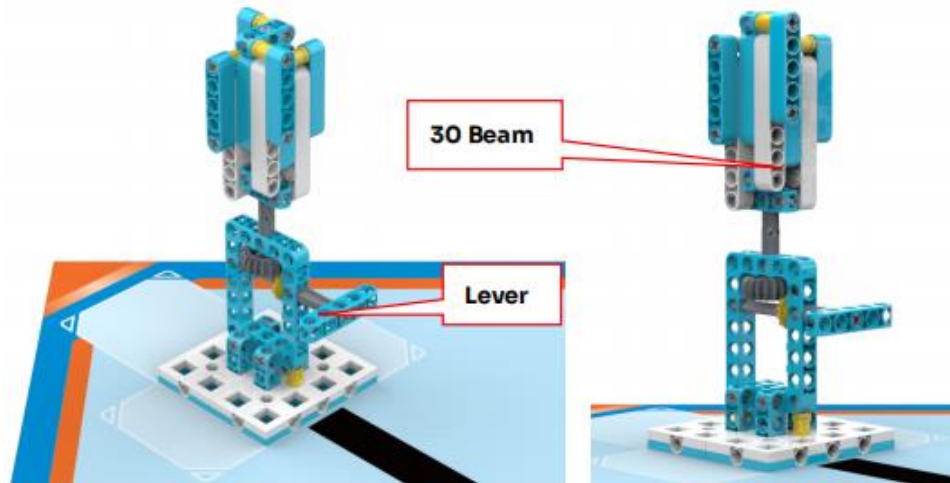


Figure 2. Initial State

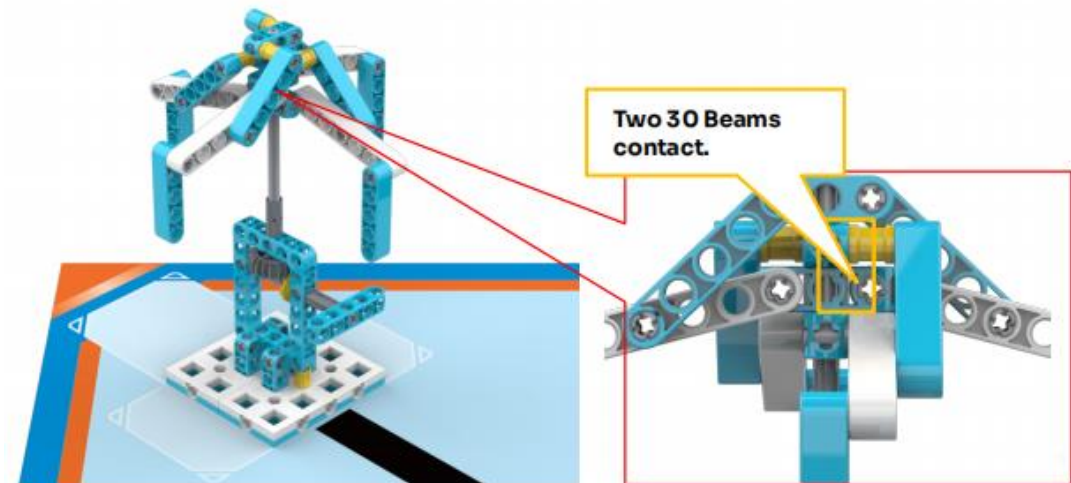
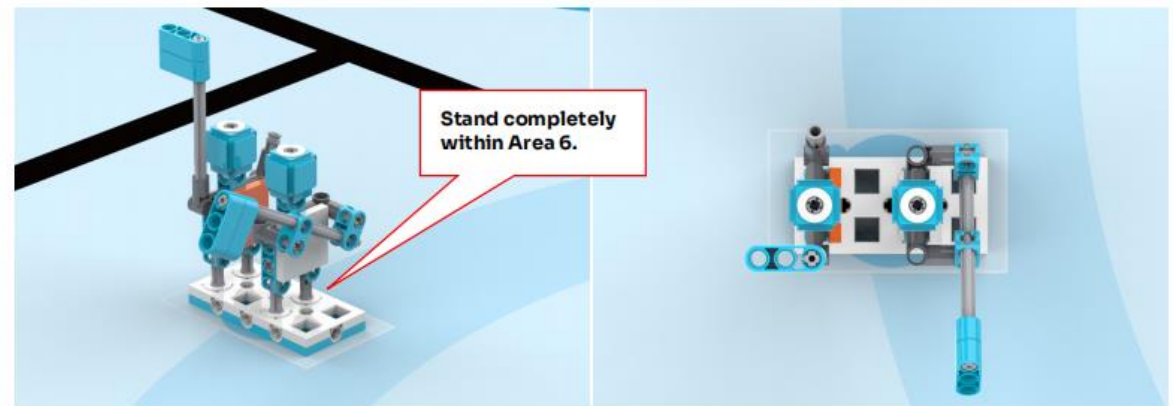
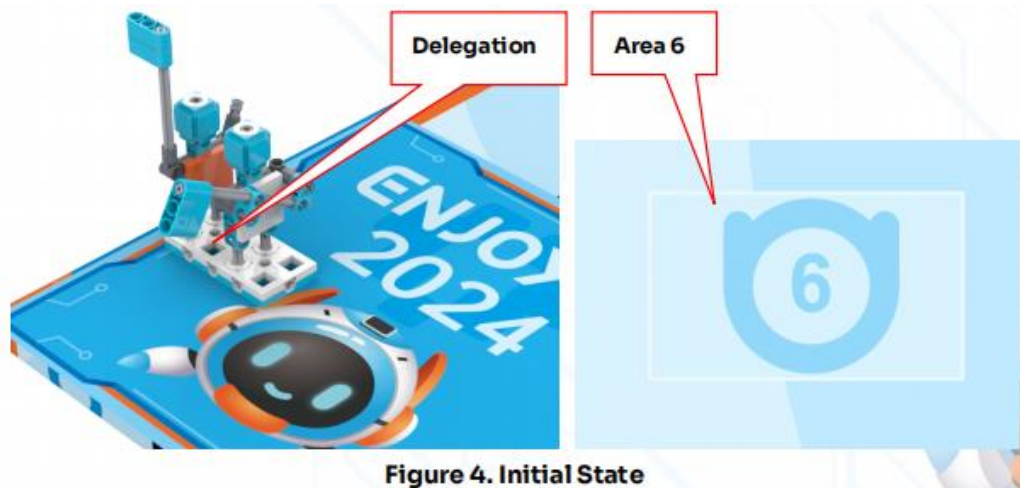


Figure 3. Final State

If two 30 beams contact, fireworks burst. In this case, you earn 50 points.

Challenges

Delegation Entry



If the delegation stands completely within Area 6, you earn 60 points.

Challenges

Delegation Entry

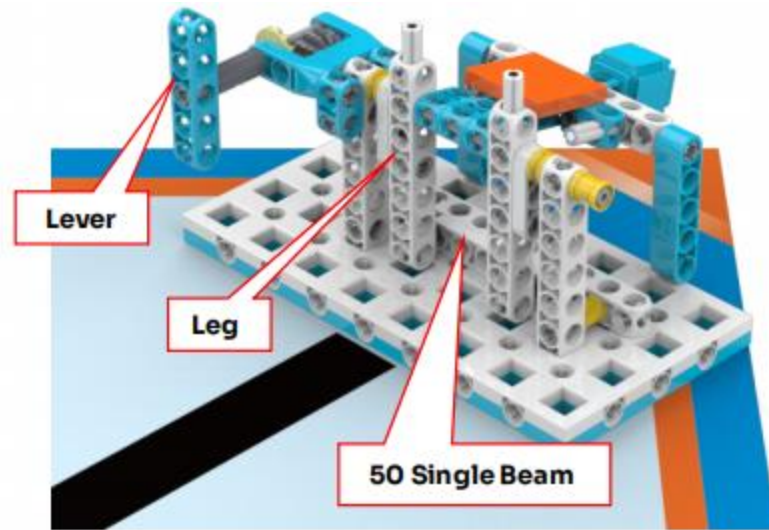


Figure 6. Initial State

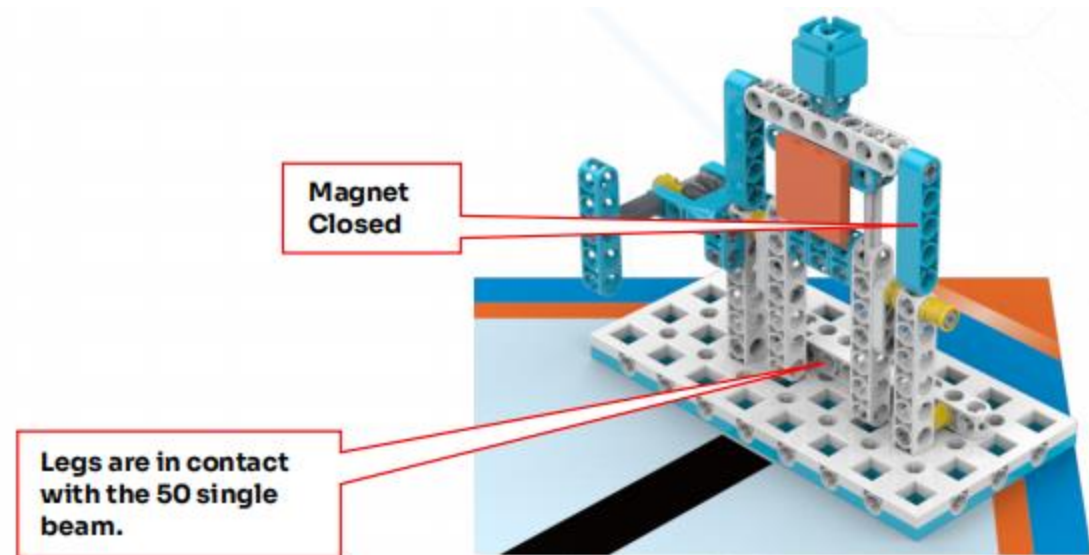


Figure 7. Final State

The dancer is in a standing position (magnet closed) with legs in contact with the 50 single beam at the bottom. In this case, you earn 60 points.

Challenges

Delegation Entry

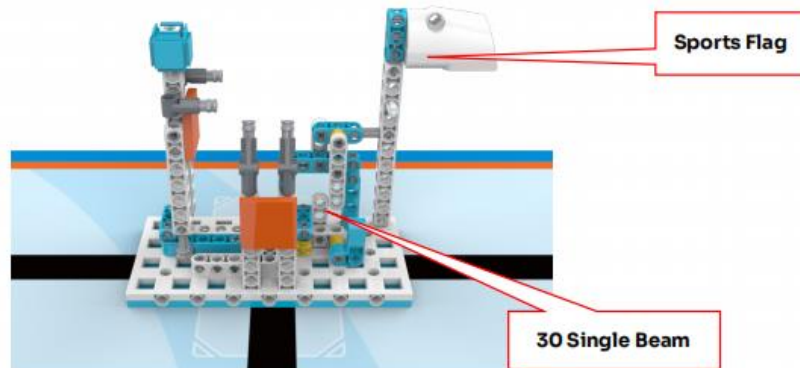


Figure 8. Initial State

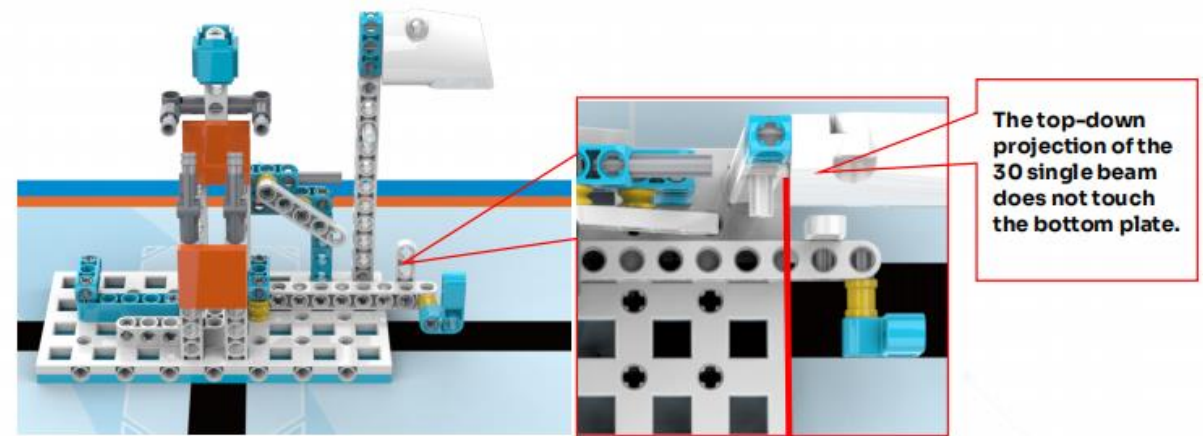


Figure 9. Final State

If the top-down projection of the 30 single beam does not touch the bottom plate, you earn 50 points.

Challenges

Flag Handover

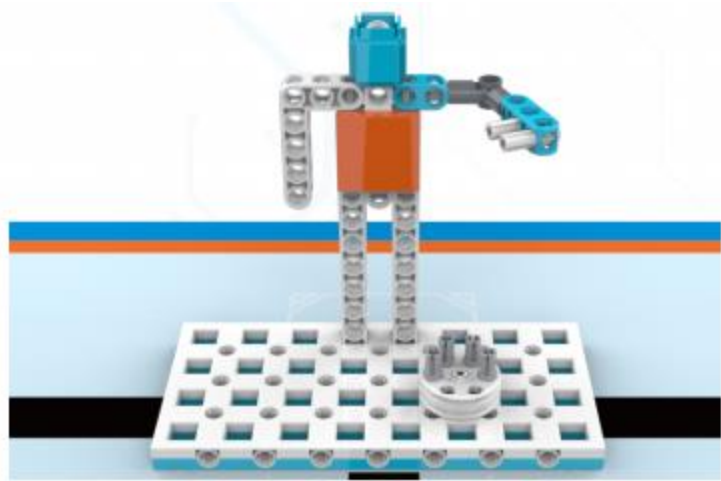


Figure 10. Initial State

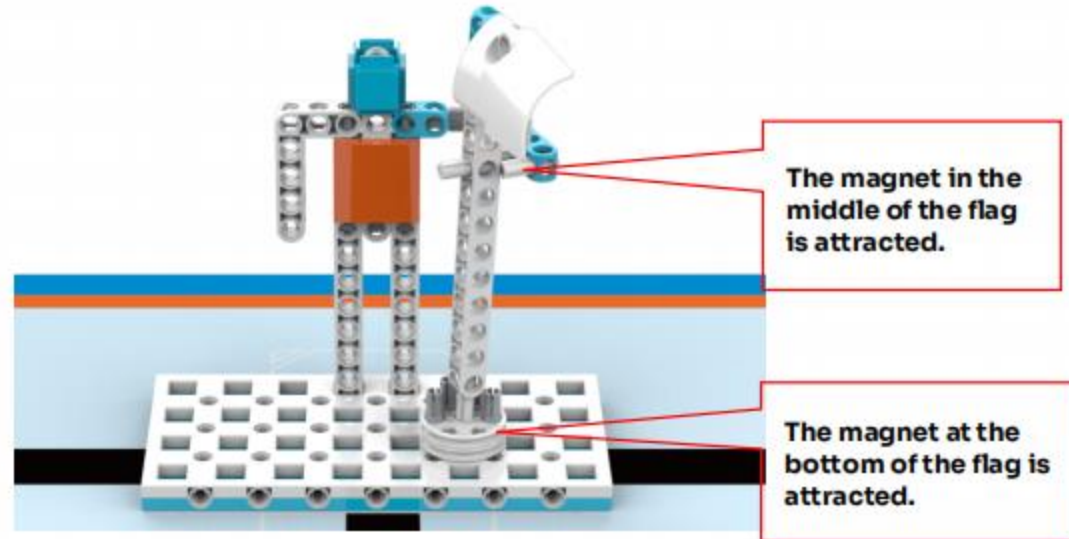


Figure 11. Final State

If the magnets at the bottom and middle of the flag respectively attract the magnets at the bottom and arm of the representative, 60 points are scored.

Challenges

Medal Presentation

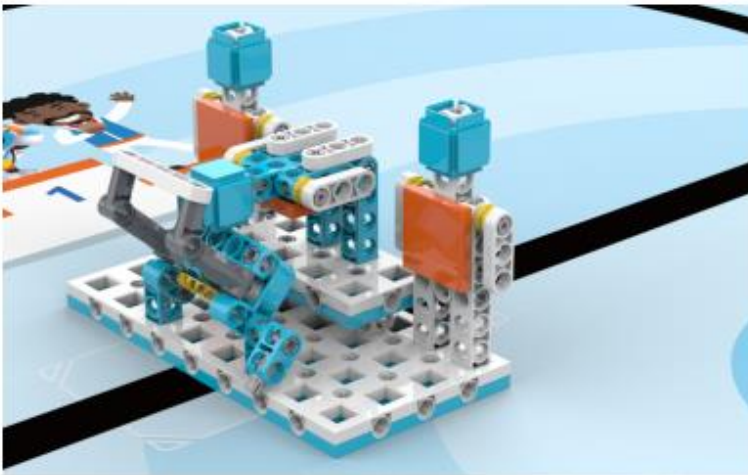


Figure 12. Initial State

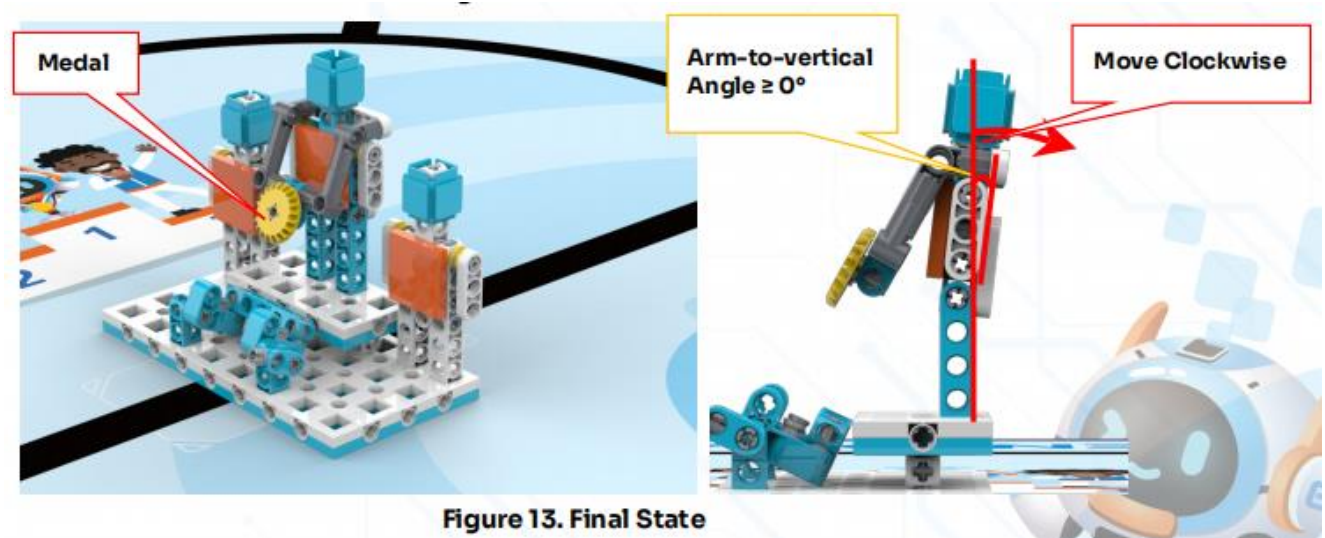


Figure 13. Final State

If the arm-to-vertical angle is or exceeds 0° and the athlete wears a medal, you earn 50 points.

Challenges

Torch Dousing

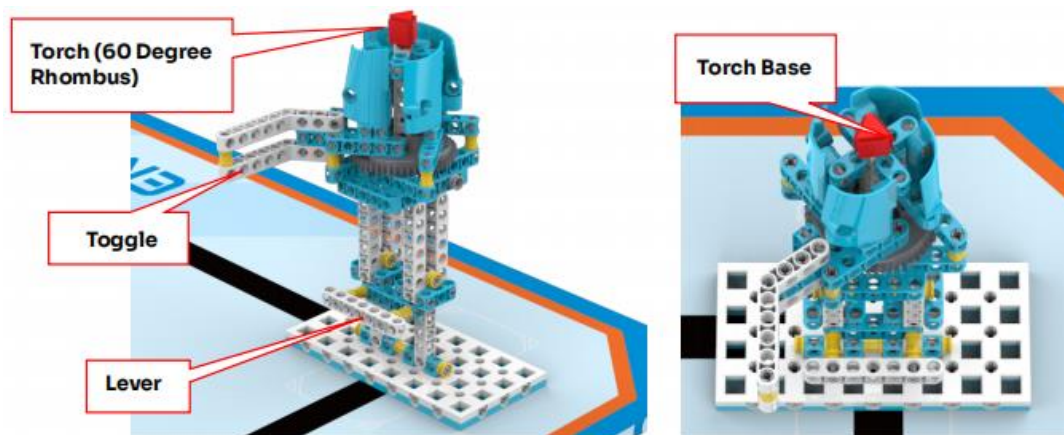


Figure 12. Initial State

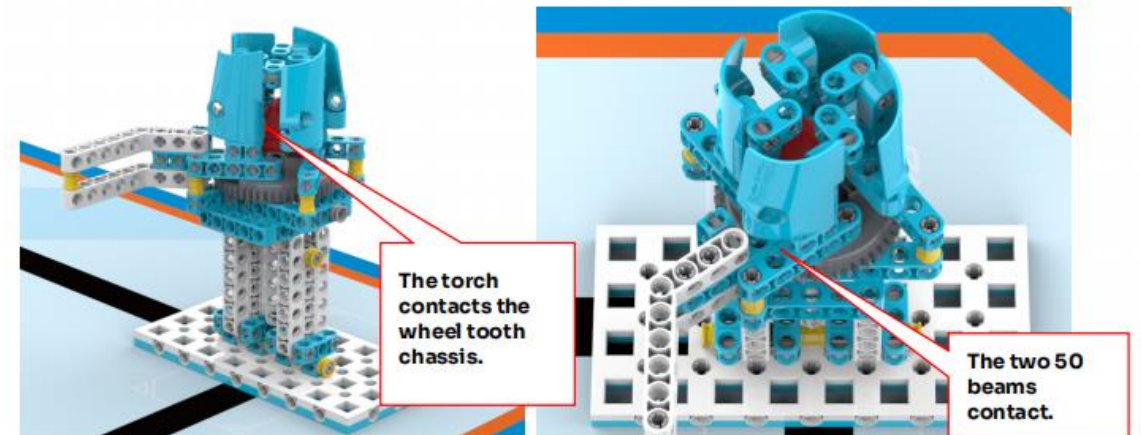


Figure 13. Final State

You earn 70 points if all of the following operations are performed: The lever is disengaged from the replica, the torch contacts the wheel tooth chassis, and the two 50 beams contact.

Challenges

Eight-minute Showcase



Figure 16. Initial State

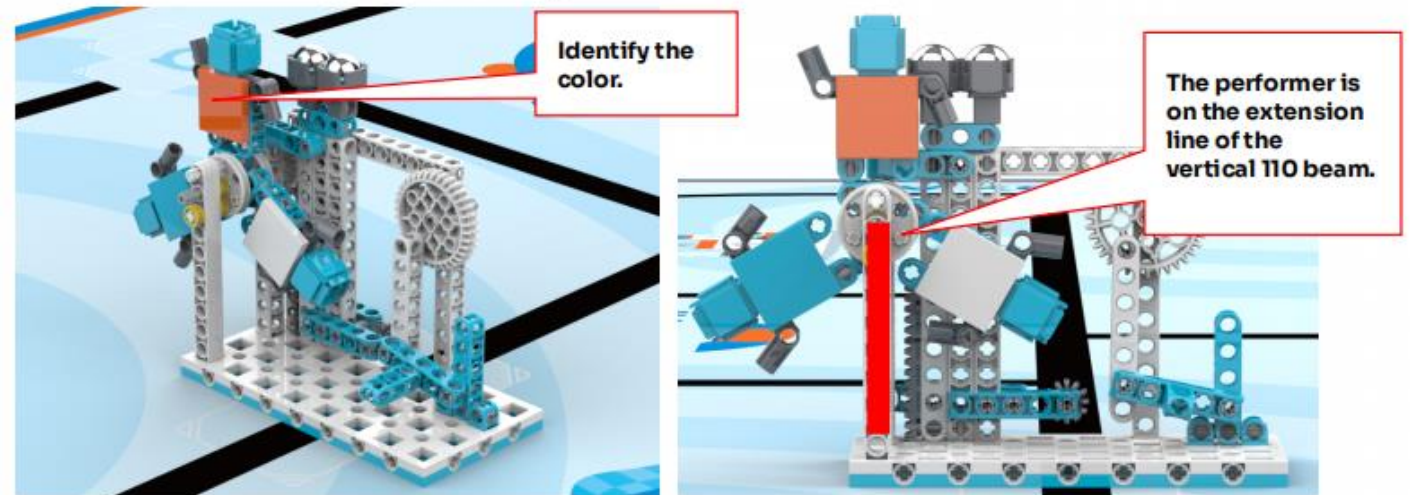


Figure 13. Final State

You earn points if the following operations are performed:

The robot enables the toggle. Then, the three performers circle around the pulley. After the performers stop, the performer that stands at the highest point is on the extension line of the vertical 110 beam. The robot identifies the color of the clothes worn by the performer at the highest point. Then, the indicator lights display the same color for at least two seconds.

The robot cannot return to the robot base when running this task. The indicator lights must be installed in places where the robot can easily find them.

Scoring Rules for Other Tasks



Challenges

Legacy of Honor

After the preceding tasks are complete, the robot automatically returns to the robot base. If the top-down projection of the robot overlaps or becomes within the robot base, you earn points.

No other operations can be performed after the robot returns.

You must complete this task within 150 seconds to win points.

Challenges

Bonus Task



There may be a bonus task in the competition. The structures and rules for the task will be announced in the robot debugging phase of the competition.

Practice Competition

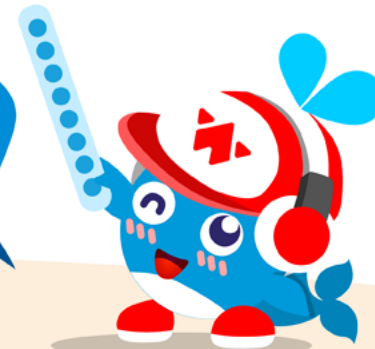


Challenges

Challenges accepted!



Let's attend a practice competition and see how many points we can get!



Give it a go!



See you next time!

