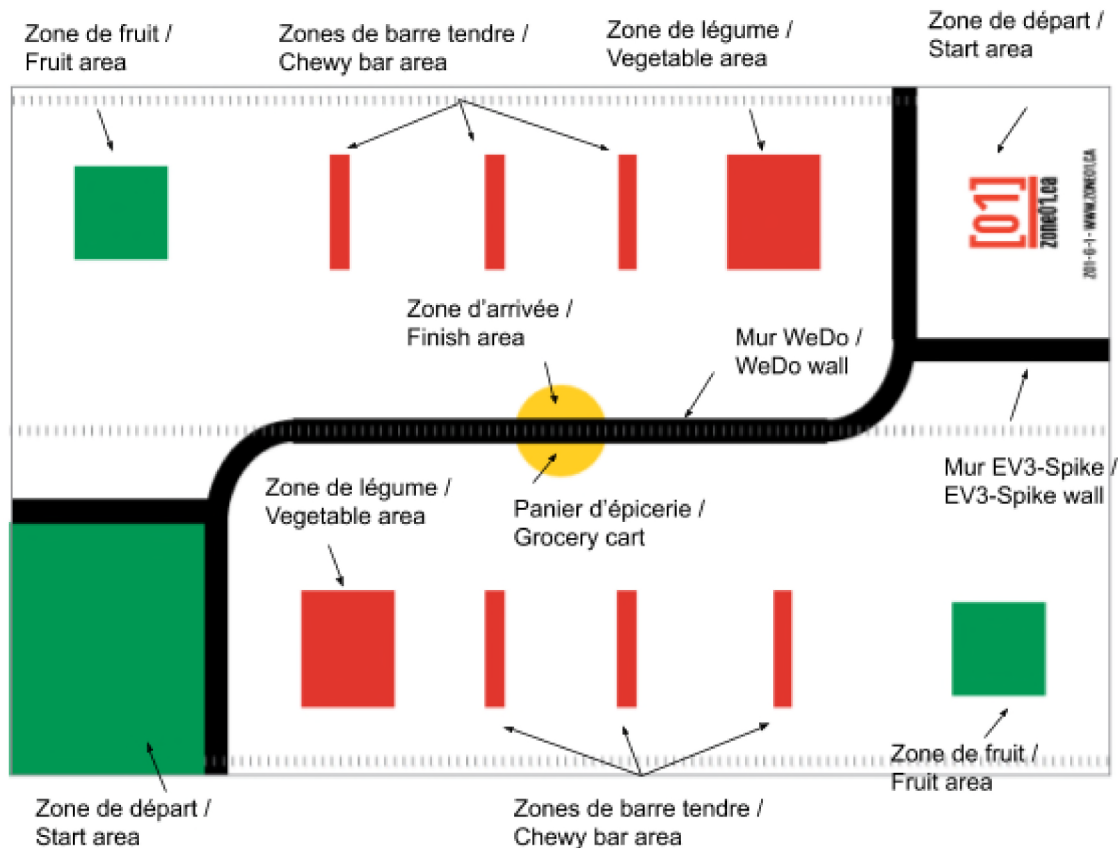


DESCRIPTION OF THE PLAYING FIELD

Mat used: Z01-G-1

The challenge is played on a challenge mat placed on a table or on the floor.



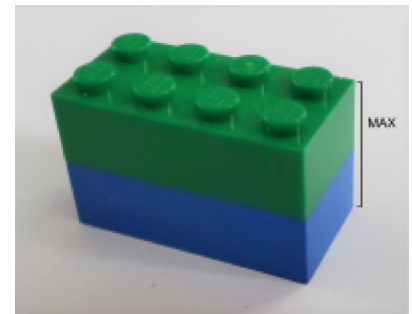
DESCRIPTION OF GAME OBJECTS

The robot will work in a very realistic environment. You will have to use real fruits and vegetables of your choice, as well as a real chewy bar in its packaging. You can choose for example a carrot, a pepper, a clementine, a banana, etc.

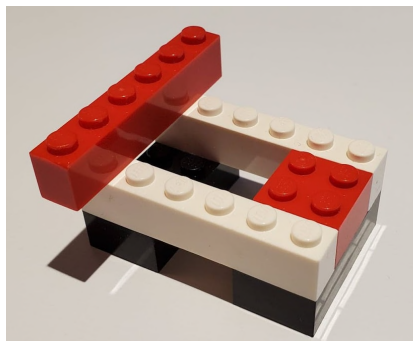
Fruits and vegetables must be at least 3 cm long for the WeDo category and 5 cm long for the EV3/Spike category. We suggest that you avoid choosing fruits and vegetables that are too fragile!

Game objects	Quantity
Fruits	2
Vegetables	2
Chewy bar	1
Grocery cart	1
Obstacle wall	1

You can place each fruit, vegetable and chewy bar on a small construction of your choice (paper, cardboard, LEGO blocks, etc.) without wheels, measuring max 7cm x 7cm, to make moving around easier. Height of the constructions cannot exceed 2 LEGO bricks.

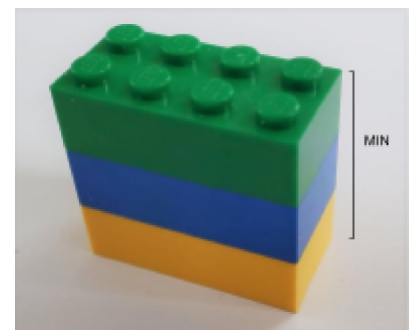


WeDo grocery cart

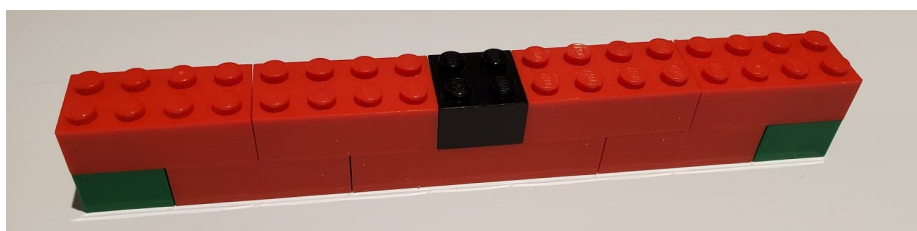


EV3/Spike grocery cart

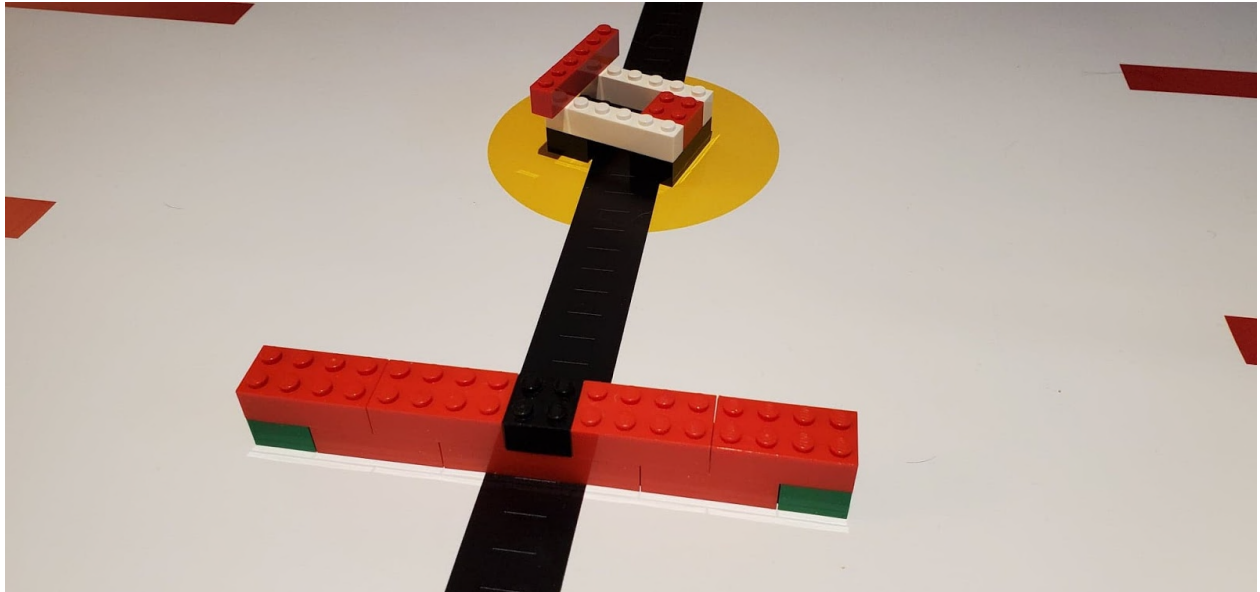
The grocery cart for the EV3/Spike category is a construction of the team's choice made of any material but with a maximum size of 10cm x 10cm and without moving parts. The height of the entire outline of the shopping cart must not be less than 3 LEGO bricks.



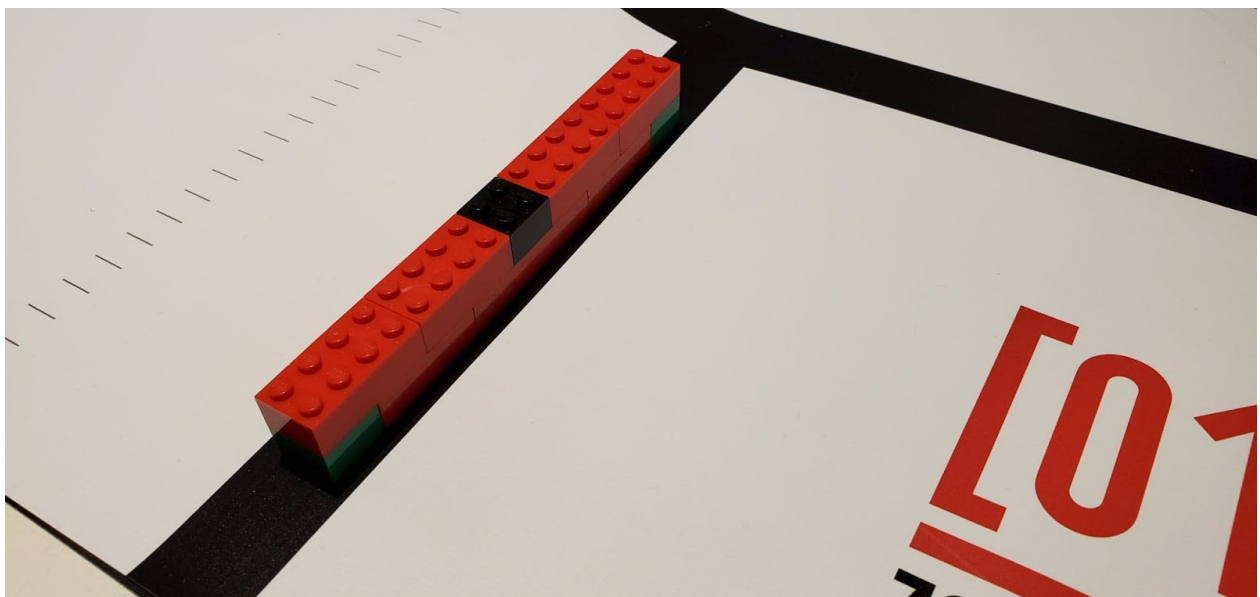
Obstacle wall



For the WeDo category, the obstacle wall is placed across the black line near the yellow circle at the 25cm line.



For the EV3/Spike category, the obstacle wall is placed in the centre of the black line near the [01] start area.



MISSION, STEP-BY-STEP (WeDo)

The team is allowed to move and align the robot as soon as it is in one of the starting areas. No LEGO parts may be added during the manipulations. Food may be added near the robot in the starting area during play. Several programs can be used.

1. The team installs its robot in one of the starting rectangles and places the grocery cart in the center of the yellow circle in the desired orientation.
2. At the judge's signal, the team starts its robot. Points will be awarded if the team starts the robot using the presence sensor.
3. The robot should push a fruit in each fruit area, a vegetable in each vegetable area and a chewy bar on one of the red lines.
4. The robot must bring the grocery cart back to a starting area without moving the obstacle wall.
5. The robot must complete its mission on the yellow circle

MISSION, STEP-BY-STEP (EV3/Spike)

The team is not allowed to touch its robot after the start. Only one program may be used.

1. The team installs its robot in one of the starting rectangles, places the grocery cart in the centre of the yellow circle, places the fruits and vegetables in their intended places and places a chewy bar on a red line.
2. At the judge's signal, the team starts its robot. Points will be awarded if the team starts the robot with the distance sensor.
3. The robot must collect the fruits, vegetables, the chewy bar and the grocery cart and bring them to the starting area identified with the logo [01].
4. Points are doubled for food that is placed in the grocery cart.
5. The robot must complete its mission on the yellow circle

END OF THE MISSION

The mission ends if:

- The maximum time has elapsed (1 minute).
- The team touches the robot or an accessory when it is not allowed to do so.

The best score of the 3 rounds will be kept. Time is not used to rank the teams.

Attention: A game object is considered in a zone if it touches the zone.

SCORING TABLE (WeDo)

	MAX PTS
Start the robot using a presence sensor	1
Place a fruit in a fruit zone (2 points per fruit)	4
Place a vegetable in a vegetable zone (3 points per vegetable)	6
Place a chewy bar on the red line	3
Bringing the grocery cart back to a departure area	4
End on the yellow circle	2
<i>Penalty for a displaced obstacle wall</i>	-2
Total	20

SCORING TABLE (EV3/Spike)

	MAX PTS
Start the robot using a distance sensor	3
Bring back a fruit in zone [01], 4 points per fruit in the cart, 2 points per fruit out of the cart.	8
Bring back a vegetable in zone [01], 6 points per vegetable in the cart, 3 points per fruit out of the cart.	12
Bring back the chewy bar in zone [01], 6 points if in the cart, 3 points if out of the cart.	6
Bring the grocery cart back to zone [01].	5
End on the yellow circle	6
<i>Penalty for displaced obstacle wall (touching outside the black line)</i>	-4
Total	40

