



---

# RoboCup Brazil Open

## RoboCup@Home

Instructions for Local Chair 2023

---

Last Build Date: August 6, 2025

## 1 arena

Do not use the same arena configuration for more than two consecutive years.

<b>area</b>	:	Between $80m^2$ and $100m^2$ .
<b>style</b>	:	Country standard.
<b>decoration</b>	:	According to the customs of the country.
<b>minimum Composition</b>	:	Living room, office, bedroom and kitchen.

### 1.1 walls

<b>Minimum height</b>	:	60 cm
<b>Maximum height</b>	:	It should not disrupt the public's view.
<b>Decoration</b>	:	The walls may contain poster or pictures.

### 1.2 Floor

<b>Type</b>	:	With some grip to prevent robots from shaking.
<b>Color/texture</b>	:	Same color or texture of the wall
<b>Steps</b>	:	There should be no steps.
<b>Carpet</b>	:	There should be no carpet.

### 1.3 Doors

<b>Amount</b>	:	At least two doors. Entry and exit of the arena. The entrance door should open to inside the house, as the output door should open to outside the house.
<b>Knobs</b>	:	The door handles should be rectangular preferably. Do not use round door handles.

### 1.4 Furniture

<b>Type</b>	:	Typical of the country.
-------------	---	-------------------------

1 small dining table with two to four chairs.

1 sofa with two or three places.

2 chairs or armchairs.

1 Television rack.

1 television with remote control.

1 bookshelf (with some books inside).

- 1 a refrigerator (should not be less than 120 cm).
- 2 plant glass.
- 1 dishwasher.
- 1 bed.
- 1 Office table with chair.
- 2 trash bins with 20 cm (minimum) diameter at the opening. They must have removable lids with rigid straps.

## 2 Arena objects

### 2.1 Table utensils

- 1 Set of dishes (minimum 3 items).
- 1 Set of bowls (minimum 3 items).
- 1 Set of cups (minimo 3 items).
- 1 Napkin package.
- 1 Set of cutlery (fork, knife and spoon).
- 10 plastic trash bags (medium size).
- 4 Shopping bags: Light and with rigid straps.
- 2 trays: tray or basket, intended for handling with both hands.
- 1 Object that I can put liquid (for example, jar).
- 1 heavy object: weight between 1.0kg and 1.5kg (for example, water bottle).
- 1 Tiny object: light, not larger than 5  $cm^3$  (for example, tea bag).
- 1 Fragile object: easy to break (for example, egg).
- 1 A deformable object: flexible that can appear in different forms (for example, cloth).

## 2.2 Objects for recognition and manipulation

The objects are presented to competitors with kits.

- Manipulation** : All objects must be parasible to manipulate with only one hand and weigh a maximum of 1.5kg.
- Amount** : The number of kits is defined by the number of participating teams. 1 kit for the arena and 1 kit for every 3 participating teams.
- Definition** : The items are defined during the competition (Warm Up).
- Items** : Kits should be between 15 and 20 items. The number of items should be balanced between categories. They may contain, for example, the following elements:

Drinks	Cleaning supplies	Pantry items	Fruits	Snacks	Cutlery
Coconut Water	Cleaner	Corn Flakes	Apple	Cookie	Spoon
Coke	Cloth	English Sauce	Banana	Pringles	Fork
Guarana	Sponge	Mustard	Orange	Doritos	Knife
Ice Tea	Brush	Tomato Sauce	Kiwi	Cornflakes	Plate
Tonic	dish polisher	Tuna Can	Lemon	Peanuts	Bowl
Water	steel wool	Corn Flakes	Tangerine	Gum Balls	Mug

NOTE: A representative of the local organization must accompany the category coordinator to a local supermarket to overcome the items.

## 3 Other materials

1 Stopwatch.

$n^*$  Poster supports.

1 Sound system with at least one lapel to connect to the robot.

1 Monitor for score presentation and information to the public.

1 Exclusive arena wifi network with internet connection.

\*  $n$  is the number of teams in the competition.