



RoboCup Brazil Open

RoboCup@Home

Instructions for Local Chair 2023

Last Build Date: March 28, 2023

1 arena

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

1.1 walls

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

1.2 Floor

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

1.3 Doors

| | | |
|---------------|---|--|
| Amount | : | 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. |
| Knobs | : | The door handles should be rectangular preferably. Do not use round door handles. |

1.4 Furniture

| | | |
|-------------|---|-------------------------|
| Type | : | 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.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 | | Knife |
| Ice Tea | | Tomato Sauce | Kiwi | | Plate |
| Tonic | | Tuna Can | | | Bowl |
| Water | | Corn Flakes | | | Mug |

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

3 Other materials

2 Stopwatch.

8 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.