Brazilian-Institute-of-Robotics / **timon_hm-2-5** Private

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leolima21 ... on May 23

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README.md

BIR 2.5 CHALLENGE - Timon-HM Team

This package refers to challenge 2.5 proposed by the BIR (Brazilian Institute of Robotics). In this challenge, four DARwin-OP robots provided by Robotis was used to solve the missions.

The robots made two different missions:

1. Made a syncronized march during 2 meters.

2. Made relay race where every robot ran during 2 meters to change the baton to the next robot.

Requirements

Software

- Ubuntu 18.04 LTS
- ROS Melodic (OpenCV included)
- OpenCV

Dependencies

This original package was used to develop the Challenge-2.5 package:

ROBOTIS OP 2 ROS packages

Packages

To reproduce these results it's necessary install these packages below.

- **DARwin-OP:**

```
$ git clone https://github.com/HumaRobotics/darwin_gazebo.git
```

- **Control packages:**

```
$ sudo apt-get install ros-melodic-ros-control ros-melodic-gazebo-ros-
control ros-melodic-controller-manager ros-melodic-effort-controller ros-
melodic-joy-* ros-melodic-joint-state-controller ros-melodic-joint-state-
publisher
```

- **Hector gazebo packages:**

```
$ sudo apt-get install ros-melodic-hector-gazebo ros-melodic-hector-gazebo-
plugins
```

Mission 1: March

Demo

Launch Gazebo world :

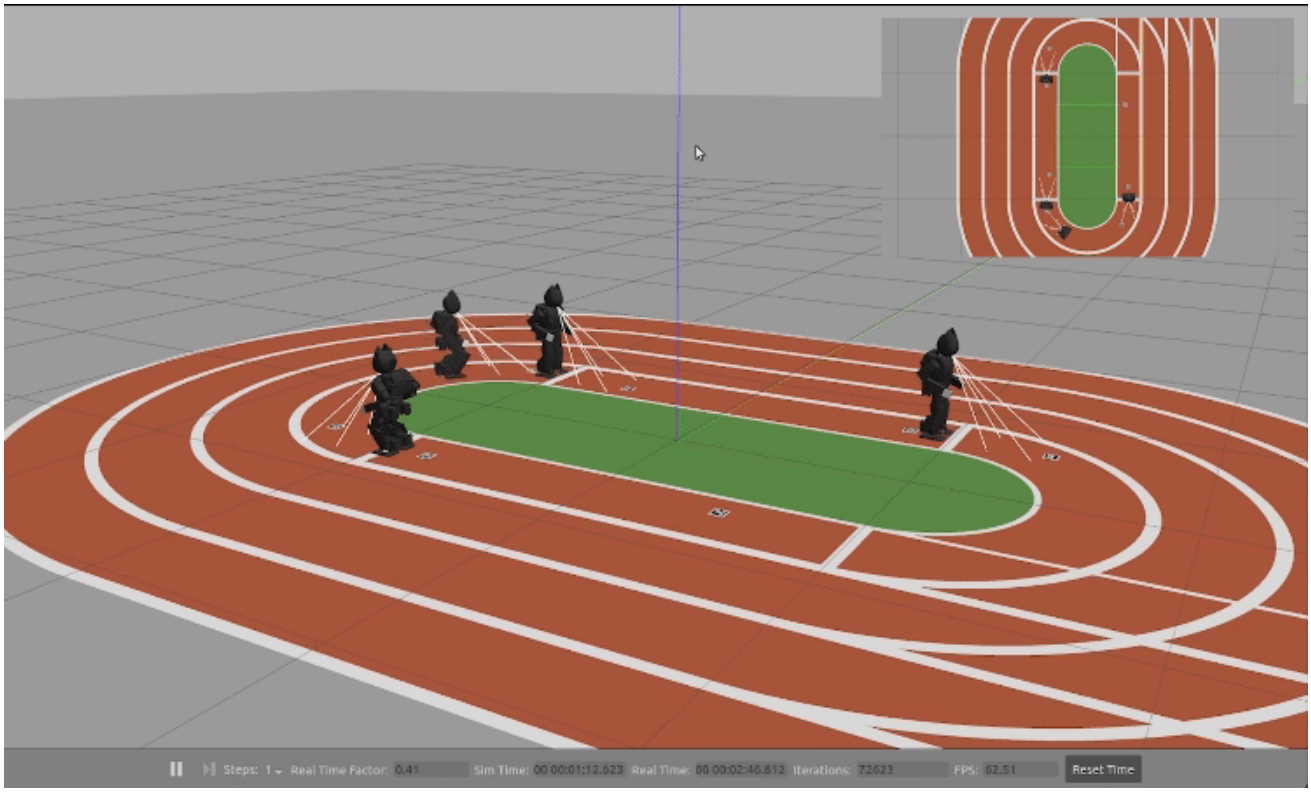
```
$ roslaunch multi_robot main_march.launch
```

Execute the mission 1 : *

```
$ rosrun multi_robot march.py
```

Mission 2: Relay Race

Demo



Launch Gazebo world :

```
$ roslaunch multi_robot main_race.launch
```

Execute mission 2 : *

```
$ rosrun multi_robot race.py
```

***Before executing the mission, don't forget to press play in Gazebo.**

Releases

No releases published
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Packages

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Languages