

rq_register_bounding_box()

Description

This script is used to place a bounding box of a specific size, at a certain position according to a referential in the virtual environment of the robot. The robot will consider the bounding box an obstacle and plan its trajectories accordingly.

Declaration

```
rq_register_bounding_box(referential, position, dimensions)
```

Parameters

`referential` (type: integer)
`al`

Referential to be used for the bounding box. The most common are 0, 3 and 9.

0 = palletizer base

- AX: like #1 but at the lowest position of the axis, turn 180° from #3
- PE : on the ground under the robot base, turn 180° from #3

1= linear axis column / pedestal lower part

2 = linear axis chariot/ pedestal upper part

3 = RobotBase

4 = RobotBaseShoulder

5 = RobotShoulderElbow

6 = RobotElbowWrist1

7 = RobotWrist1Wrist2

8 = RobotWrist2Wrist3

9 = RobotFlange

position (type: pose) (unit: meter / RAD)

Format `p[X, Y, Z, Rx, Ry, Rz]`

The origin of the box is in the center of the face that is opposite to the direction of Z of the reference.

For a reference in 0 or 3, it is on the bottom of the box. For a reference in 9, it's on the top of the box.

Rotations are around the chosen referential's axis and in axis-angle (not euler).

For multiple rotations, the rotation around X axis will be applied first, then around Y and finally around Z.

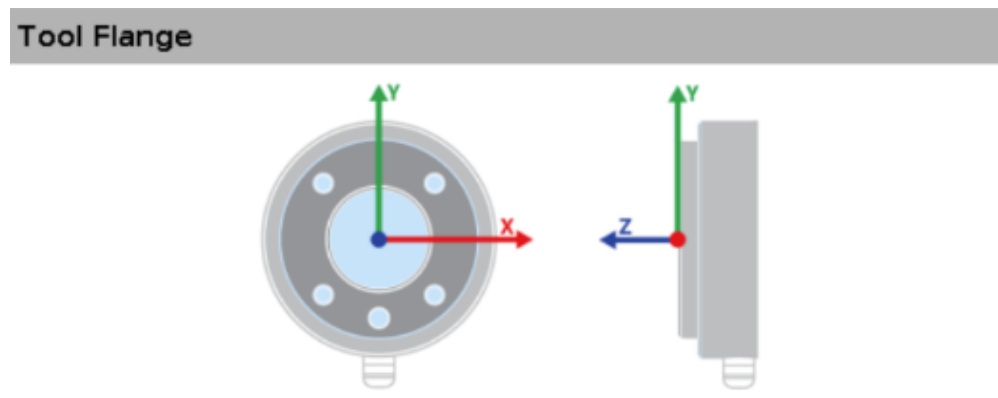
dimension (type: list) (unit: meter)

s

Format `[x, y, z]`

The dimensions of the box dimension in length, width and height according to the referential.

For referential 9, that would be the tool flange.



Return value

No value is returned.

Example

```
rq_register_bounding_box(0, p[0.52, -0.123, 0.427, 0, 0, 0], [1.4, 0.6, 2.7])
```

See [node_rpc_server.savePalletizerSceneToPlyFile\(\)](#) to validate the position and size of your box in the virtual environment of the robot.

In the base reference : [link](#)

In the tool flange reference : [link](#)