Turntable demonstrator

User instructions

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Turning on the robots

Connect the robot with the power supply given. Toggle the robots switches to power them on. When the led at the back become blue or green, the robots are ready. You can calibrate them.

Then open two Niryo Studio application, connect one robot to each application and start the programs Robot 1 et Robot 2.

Finally, launch the scale program on the scale's Arduino board, and the master program on the Arduino Mega board.

Shutdown of the robots

To shutdown the demonstrator, you just have to stop the programs on the two robots on Niryo Studio, you then need to press the top button on each robot and wait for the led to turn purple (after about three seconds), then wait for the led to turn red and when it is, you can switch off the robots and unplug them.

Game play

Physical buttons

The two robots go on their starting position and wait for a push button to be pressed. When it is, the turntable rotate to the good position, the first robot moves to the object position, takes it, puts it on the scale and the turntable and the robot go back to their starting position.

The weight value is printed and sent to the Arduino board to define in which box the second robot needs to put the object. When the communication is done, the second robot takes the object on the scale, puts it in the right box and goes back to it starting position. Then, the two robots wait until a push button is pressed.

Bluetooth application

The two robots go on their starting position and wait for a button on the application to be pressed. Then, you need to activate the Bluetooth on your smartphone, start the application, connect to the Bluetooth and then choose a position by clicking on the corresponding button. When it is, the turntable rotate to the good position, the first robot moves to the object position, takes it, puts it on the scale and the turntable and the robot go back to their starting position.

The weight value is printed and sent to the Arduino board to define in which box the second robot needs to put the object. When the communication is done, the second robot takes the object on the scale, puts it in the right box and goes back to it starting position. Then, the two robots wait until a push button is pressed.