

Follow me behavior (detection part) tests

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Follow me behavior (perception part): tests

1. Offline tests
2. Tests on robair

Follow me behavior (perception part): Testing

First, we need to start our nodes and Rviz:

- Open a terminal to run your nodes and Rviz :

```
cd ~/ros2_ws/src/follow_me/scripts  
./start_robot_detection_only.sh
```

- Open the graphical display in rviz:
select the graphical marker that you want to see

Follow me behavior (perception part): offline Test

To test offline (without a robot) :

- Open a terminal to play a rosbag file :

```
cd ~/ros2_ws/data_for_labs/follow_me/detection/old_laser  
ros2 bag play <data_file>.bag2
```

- Do not forget you can put your rosbag in pause by pressing the « space » key
- You can run your rosbag step by step with « s » key
- **When the rosbag finishes, it is better to KILL all your nodes**, and restart them before running `ros2 bag play` again.

Take a look at the different folders under `data_for_labs`. You will have to **use different rosbag files**, which represent different scenarios for testing.

In particular, make sure to use some “old_laser” and some “new_laser” files. **The laser on your RobAIR robots corresponds to the “new_laser”.**

Follow me behavior (perception part): offline Test

- Moreover you can directly debug you detection_node in vscode:
 - Add breakpoint
 - Look at the value of variables at a given breakpoint

Follow me behavior (perception part): offline Test

- Each rosbag of detection **must** be run for each function of your detection process:
 - Detect_motion;
 - Perform_clustering;
 - Detect_legs;
 - Detect_persons;
 - Detect_a_moving_person.
- Look carefully at the textual output of your detection_node and the appropriate graphical marker in rviz
- Your code will be automatically tested for your evaluation
=> make sure to test all the situations

Follow me behavior (perception part): tests

1. Offline tests
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Follow me behavior (perception part): tests on robair(1/2)

First, we need to start our nodes and Rviz:

- Open a terminal to run your nodes and Rviz :

```
cd ~/ros2_ws/src/follow_me/scripts  
./start_robair_detection_only.sh
```

- In the next step, you will use the keyboard keys to drive the robot using the smooth_teleoperation node. You should see it appear when you run the

start_robair_detection_only script, it has a **red background** colour.

- Open the graphical display in rviz:
select the graphical marker that you want to see

Follow me behavior (perception part): tests on robair (2/2)

1. Move in front of robair and check that you are detected;
2. Teleoperating the robot :
 - Click on the smooth_teleop terminal ;
 - **Only** using the green marker in the middle of your 2 legs, rotate robair so that it is facing you;
3. **Only** using the green marker in the middle of your 2 legs, move robair so that it stays close to you;
4. Ask a second person to move in front of robair while you are not moving
 - What happens with the green marker ?
 - If you move robair **only** using the green marker, is robair still following you ?