Install and configure Logical cameras

In Module 5.1, the Logical camera was introduced. We also learned that models can be added to Gazebo world files and we saw how different models were included in the `hrwros.world` file.

In this assignment you will get a chance to implement the theory you learned during this week by installing and configuring **two new logical cameras** in the factory simulation. The first camera will be above the conveyor belt near robot1, like it was shown in video lecture 5.1.1 and the second camera will be near the second robot where the TurtleBot is expected to deliver the object.

Those models and world files are included in the `hrwros_week5_assignment` package

This assignment will consist of two parts, first you will add the cameras to the a new world file, and then you will configure the models.

Week 5 - Assignment 1 - part 1 (of 2) --- 1 Point

In the assignment package of this week, the two new logical camera models have been included, named *new_logical_camera1* and *new_logical_camera2*. You can find them in the `hrwros_week5_assignment/models` folder

In the first part of this assignment, you only need to edit the *week5_assignment1.world* file, found it in the `hrwros_week5_assignment/worlds` folder.

Add the two new models in the following poses:

- Position of the new logical camera 1: 1.2 1.80 2.0
- Orientation of the new logical camera 1: 0 1.57 0

- Position of the new logical camera 2: -8.3 -1.23 1.8
- Orientation of the new logical camera 2: 0 1.57 0

Once you have added the new models, **Remember to save the .world file** and continue to the part 2 of the assignment.

Week 1 - Assignment 1 - part 2 (of 2) --- 2 Points

As we learned in the lectures, Just adding the cameras is not sufficient because we cannot use them without configuring them before.

So, in this part we will do that. For this you will have to update the `model.sdf` files in the folders for each new logical camera.
You need to add your code wherever you are instructed to <write_code_here>.

The following configuration parameters are desired:

Configuration for new logical camera 1:

- Model name: new_logical_camera_1
- Link name: new_logical_camera_1_link
- Sensor name: new_logical_camera_1

Configuration for new logical camera 2:

- Model name: new_logical_camera_2
- Link name: new_logical_camera_2_link
- Sensor name: new_logical_camera_2

After you have completed all the changes in the two `model.sdf` files you can tests the new models by following the steps below:

Step 1: Launch the `week5_assignment1` environment:

```
$ roslaunch hrwros_week5_assignment
week5_assignment1.launch
```

After the simulation comes up, you should see the new cameras on top of the two robots in Gazebo.

Step 2: Check that the new topics are present and that they are publishing some data.

Use tools you have learned from the first week, like `rostopic list, rostopic info, rostopic echo, etc.` To check that the topics exist and that the cameras are actually publishing some data, also take time to explore the knowledge you have acquired so far.

You might understand that we cannot give you every single command :)

This completes the first assignment of this week!

As with previous weeks, you only need to upload your files after completing all 3 assignments of this week.