Advanced perception:
tracking of a moving person

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Advanced follow me behavior (perception part: 1/3)

Detecting a person using only the current laser scan is good, but is it enough ? Let's see !

1. Move in front of robair and check that you are detected;
2. 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 to a second person to move in front of robair while you are not moving
   - In a real environment, there is always several persons present
   - What happen with the green marker ?
   - If you move robair only using the green marker, is robair still following you ?

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Advanced follow me behavior (perception part: 2/3)

5. Why do we need to track the followed moving person ?

   In this lab, we will implement the tracking mechanism explained in the lecture slides, to avoid these failure cases.

   Have a look on datmo course: tracking part (from slide 28);

Advanced follow me behavior (perception part: 3/3)

7. In tracking_node.cpp:
    - Nothing to implement here.
    - This is the main update loop which will call the tracking functions implemented in datmo.cpp.
    - Read the code and understand the sequence of function calls.

8. In datmo.cpp :
    Implement the tracking functions :
    - initialize_tracking
    - track_a_person
    - detect_and_track_a_person .

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