Assignment 5

The due date for submitting this assignment has passed.

As per our records you have not submitted this assignment.

Due on 2021-02-24, 23:59 IST.

1. We have a different type of robot which has a fixed pivot point on the work environment using the stereo camera instead of the wheel sensors. As in 4.1, you know there are three types of stereo sensors as listed below. Select the dimensions errors that can be eliminated by proper calibration of the system.

   • Limited resolution in determining the distance
   • Misalignment of the wheels
   • Uncertainty in the wheel diameter and in particular unequal wheel diameter
   • Variation in the contact point of the wheel
   • Uncertain flow control

   No, the answer is incorrect.

   Accepted Answer:
   • Misalignment of the wheels
   • Uncertainty in the wheel diameter and in particular unequal wheel diameter

2. Using the following data answer the question 6-8.

   For a different drive test the initial position is as given in point A and the robot moves to another point B. Given the distances between the two
   points in is 2 units and the right and left wheels traverse distances on 2 and 3 units respectively.

   6. What will be the change in the pressure from point A to point B?

   No, the answer is incorrect.

   Accepted Answer:
   2.40
   1.17
   1.20
   1.17
   1.40
   1.53
   1.20
   1.40

   7. Find the x coordinate of new pose of the robot singer. (up to two decimal places)

   No, the answer is incorrect.

   Accepted Answer:
   2.40
   1.17
   1.20
   1.17
   1.40
   1.53
   1.20
   1.40

   8. Choose the false statement:

   No, the answer is incorrect.

   Accepted Answer:
   Type: Option A
   1. It is an object level statement.
   2. It is an object level statement.
   3. It is not an object level statement.
   4. It is not an object level statement.

   9. Select the true statement:

   No, the answer is incorrect.

   Accepted Answer:
   Type: Option A
   1. It is not an object level statement.
   2. It is an object level statement.
   3. It is not an object level statement.
   4. It is not an object level statement.

   10. Choose the correct statement:

   No, the answer is incorrect.

   Accepted Answer:
   Type: Option A
   1. It is a predicate level statement.
   2. It is a predicate level statement.
   3. It is not a predicate level statement.
   4. It is not a predicate level statement.