

Lab 5 Questions

Robotics & Automation
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Instructions. Print your name at the top of the page. Turn in this sheet at the end of lab: your lab grade will be based on your answers.

Question 1. Define X and X_d in terms of p .

$$X = \quad \quad \quad X_d =$$

Question 2. Write the Jacobian J you will use for numerical inverse kinematics.

$$J_1 = \quad \quad \quad J_2 = \quad \quad \quad J_3 =$$

Question 3.

Signed by lab GTA: _____

Question 4.

marker	error	marker	error	marker	error
1		2		3	
4		5		6	
7		8		9	

Question 5.

Question 6. Please make your drawing on the back of this page.

Question 7.

- Yes / No for $\theta_0 = [2\pi, 0, 0]^T$:
- Yes / No for $\theta_0 = [0, 0, -\pi/4]^T$:
- Yes / No for $\theta_0 = [0, 0, \pi]^T$:

Action 5. List and label all parameters below.