

ECE 489 Robotics Dynamics and Control

Homework # 1

Due Date: 01/30/2007

The first three problems are from the textbook. If you have the preliminary paperback version, please check to make sure you are doing the correct problems.

1. Problem 2-2
2. Problem 2-3
3. Problem 2-9
4. For each of the manipulators shown below:
 - (a) Establish coordinate frames at each link according to the DH-convention. Draw the coordinate frames directly on the figure.
 - (b) Create a table of DH-parameters.

Note: You need not compute the A -matrices or forward kinematics.

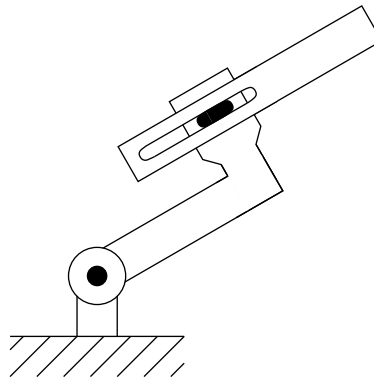


Figure 1: A two-link RP manipulator

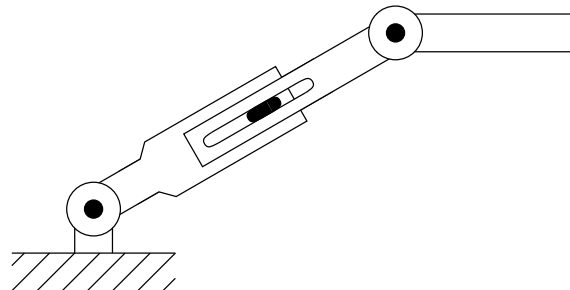


Figure 2: A three-link RPR manipulator