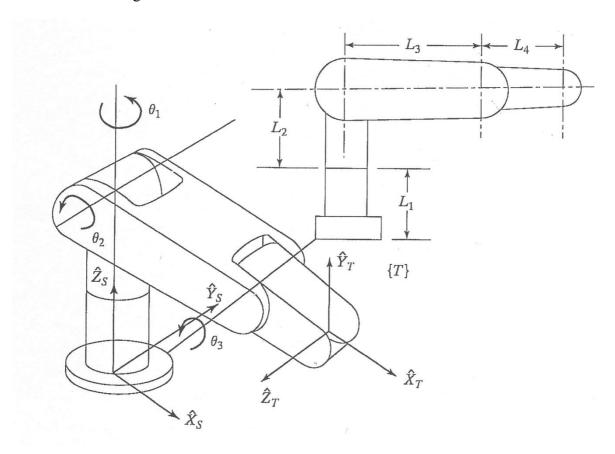


Forward Kinematics TODO

Given the following 3R robot



where L_1 =4, L_2 =3, L_3 =2, and L_4 =1.

- 1) Derive the DH-Std parameters and the neighbouring homogeneous transformation matrices ${}^{i-1}T$, for i=1,2,3, as functions of the joint angles. Draw the joint frames.
- 2) Implement the forward kinematics, that is, ${}_{3}^{0}T(\theta_{1},\theta_{2},\theta_{3})$.
- 3) Calculate the result for the following joint angles: (0, 0, 0), $(0, \pi/2, 0)$, and $(0, \pi/2, \pi/6)$.
- 4) Build the robot object using the obtained DH parameters and compare the results using the forward kinematics associated method with that obtained multipliying the neighboring matrices. Compare your results with the RTB 3R Manipulator model: mdl 3link3d ajust the DH parameters.