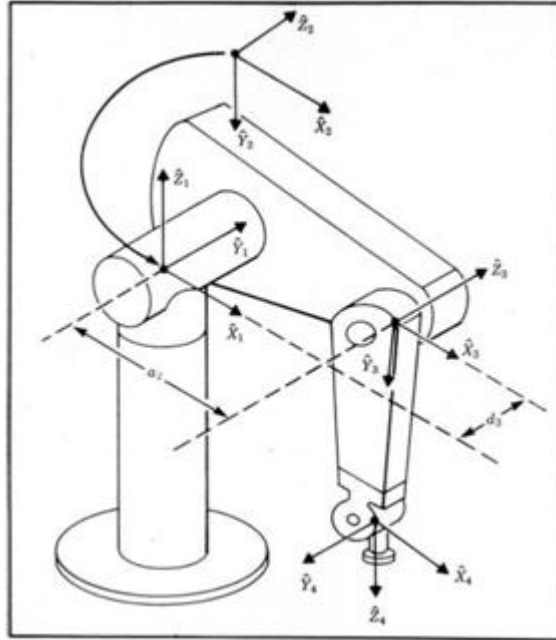


## MMC Homework 2

### 1. Program Forward Kinematics for Puma 560 Robots using Matlab



choose  $[a_2, a_3, d_3, d_4]$  as  $[1 \ 0.3 \ 0.5 \ 1]$  and  ${}^6P_T = [0 \ 0 \ 0.3]^T$

- When  $\theta_1 = 30^\circ$ ,  $\theta_2 = 30^\circ$ ,  $\theta_3 = 45^\circ$ ,  $\theta_4 = 90^\circ$ ,  $\theta_5 = 30^\circ$ ,  $\theta_6 = 30^\circ$ , find  ${}^0_T T$ .
- Find 8 sets of solution from Inverse Kinematics with the  ${}^0_T T$   
Confirm that one of 8 solution sets is the joint angle set in a)