

King Saud University  
College of Computer and Information Sciences  
Computer Engineering Department

First Semester, 1429/1430 Academic Year.

CEN459 - Robotics

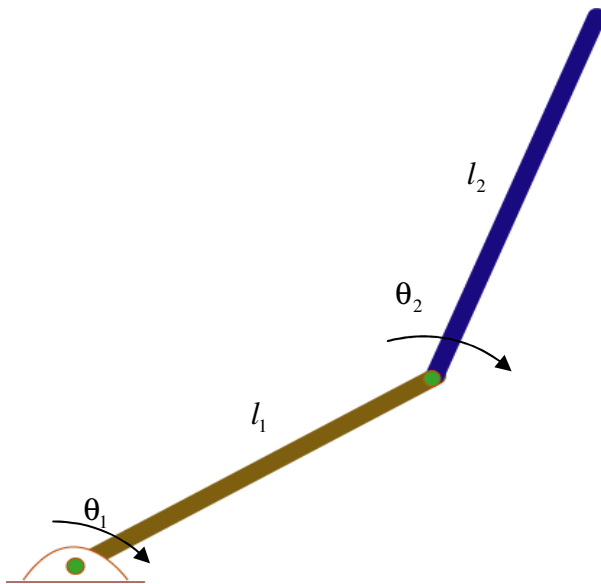
Home Work # 3

Due date: 24/11/1429 - 22/11/2008

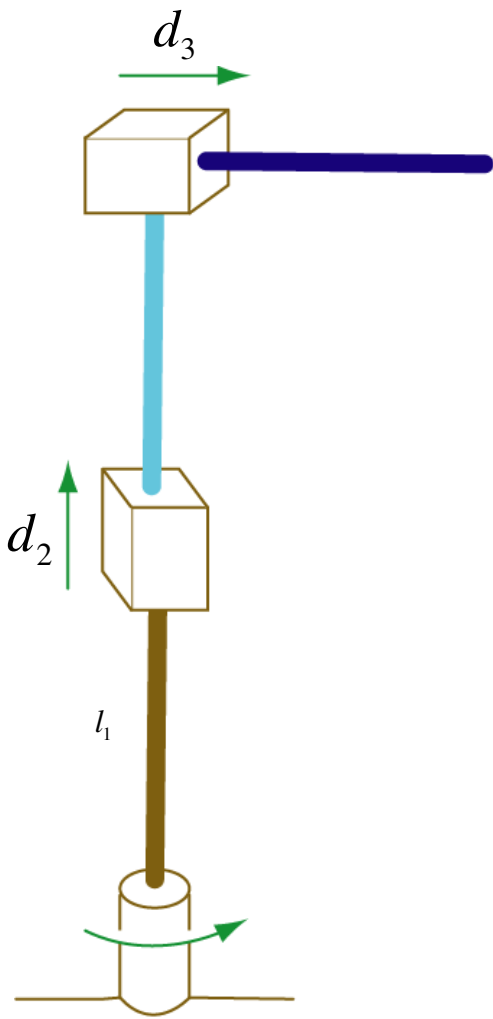
Student Name:

Student No:

Assign frames for the following robots. By using DH convention find the homogenous matrix  ${}^{i-1}A_i$  and  ${}^0A_n$ . Deduce the forward kinematics for each robot.

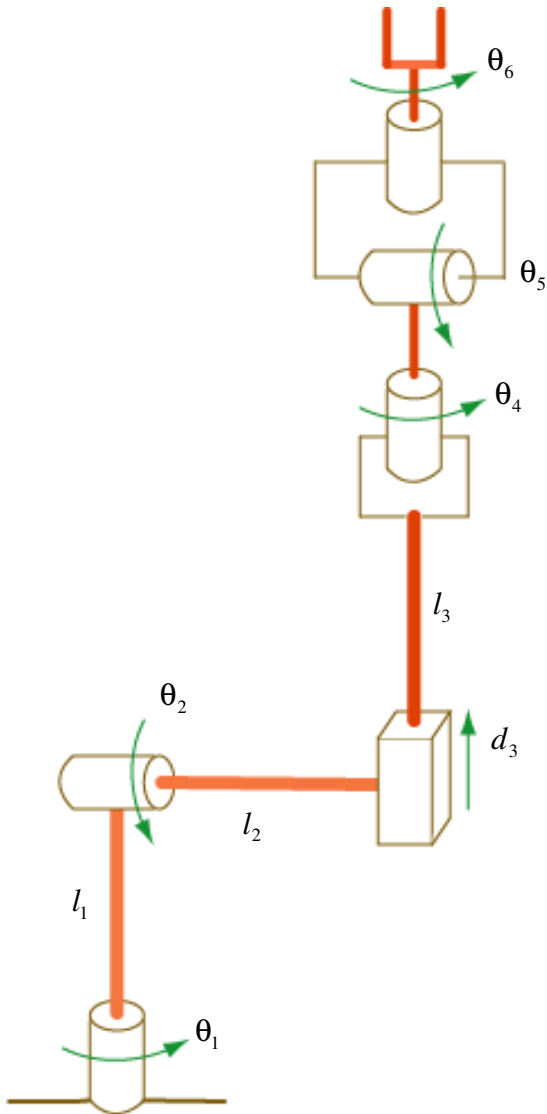


Link	$a_i$	$\alpha_i$	$d_i$	$\theta_i$
1				
2				



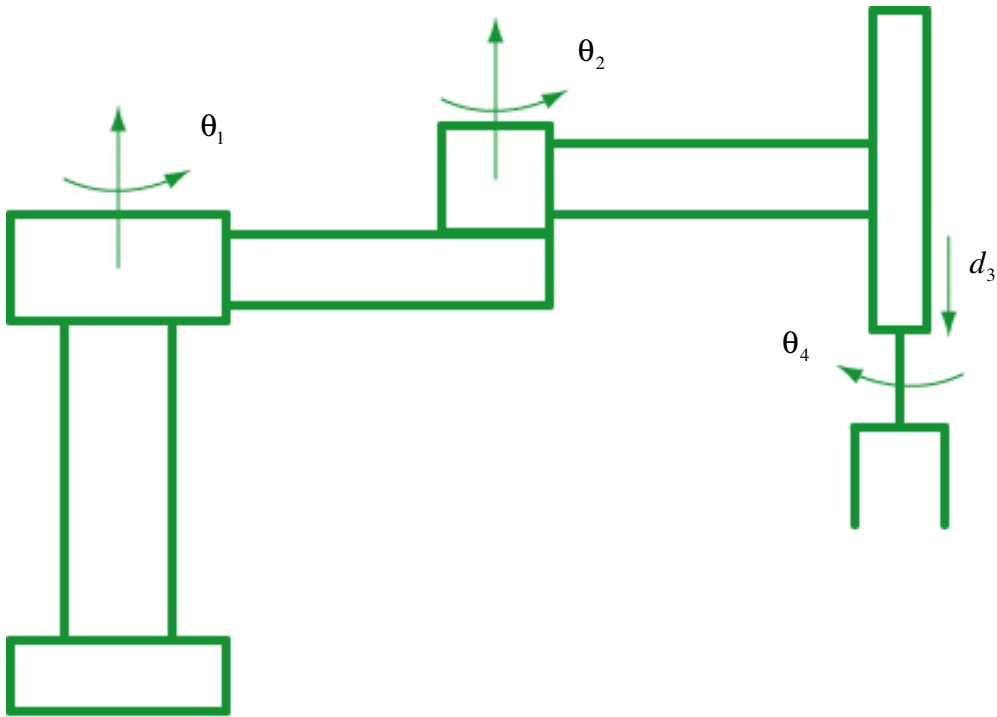
Link	$a_i$	$\alpha_i$	$d_i$	$\theta_i$
1				
2				
3				

## Stanford Manipulator



Link	$a_i$	$\alpha_i$	$d_i$	$\theta_i$
1				
2				
3				
4				
5				
6				

# SCARA Manipulator



Link	$a_i$	$\alpha_i$	$d_i$	$\theta_i$
1				
2				
3				
4				