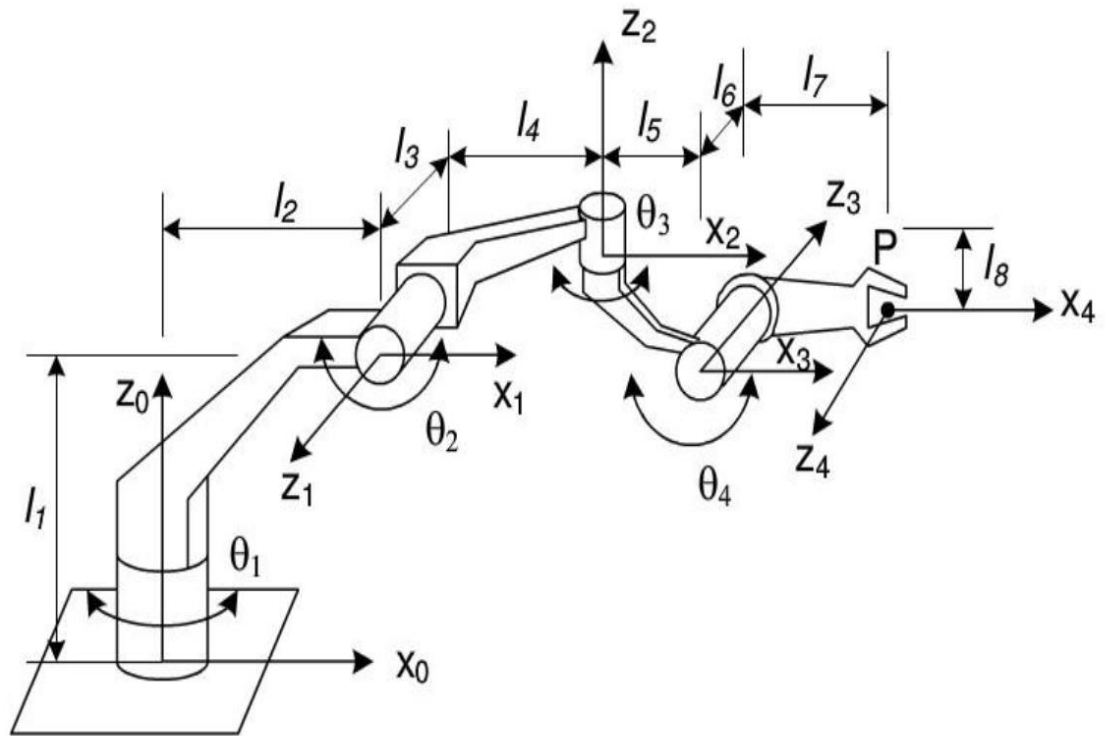


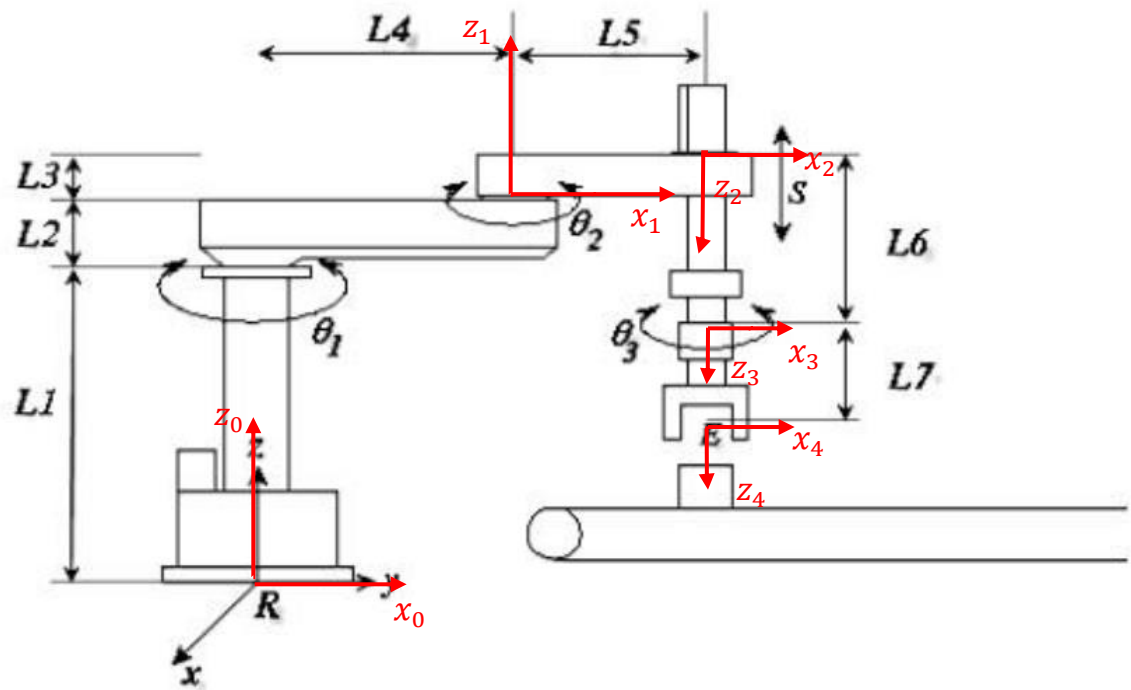
HOMEWORK 4

Bài 1:



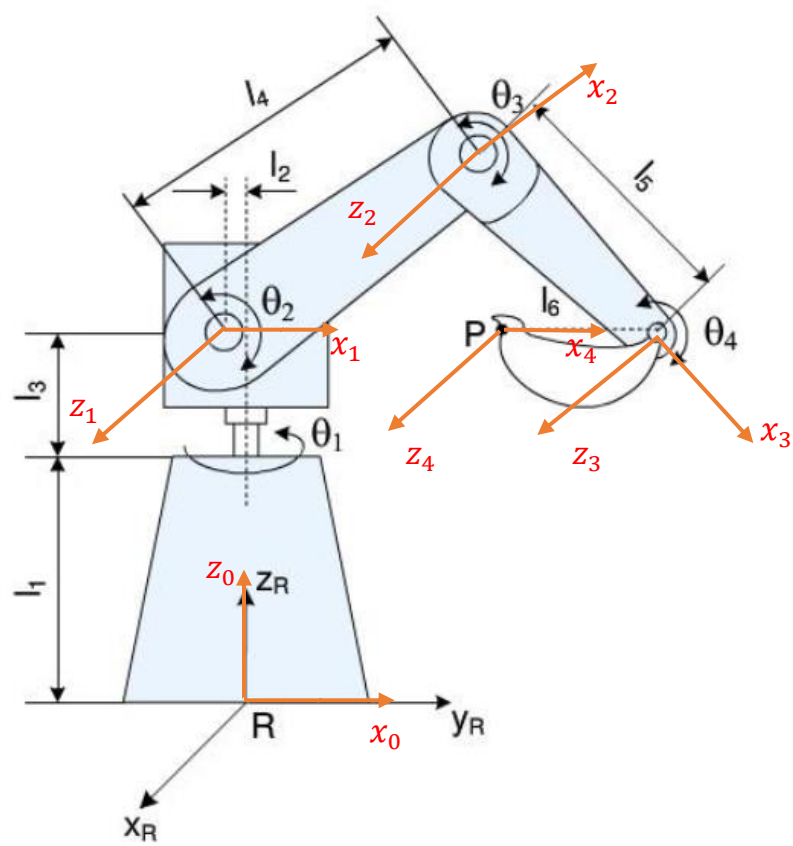
Khớp	θ	α	l	d	var
1	θ_1	$\frac{\pi}{2}$	l_2	l_1	θ_1
2	θ_2	$-\frac{\pi}{2}$	l_4	l_3	θ_2
3	θ_3	$-\frac{\pi}{2}$	l_5	l_6	θ_3
4	θ_4	π	l_7	l_8	θ_4

Bài 2:



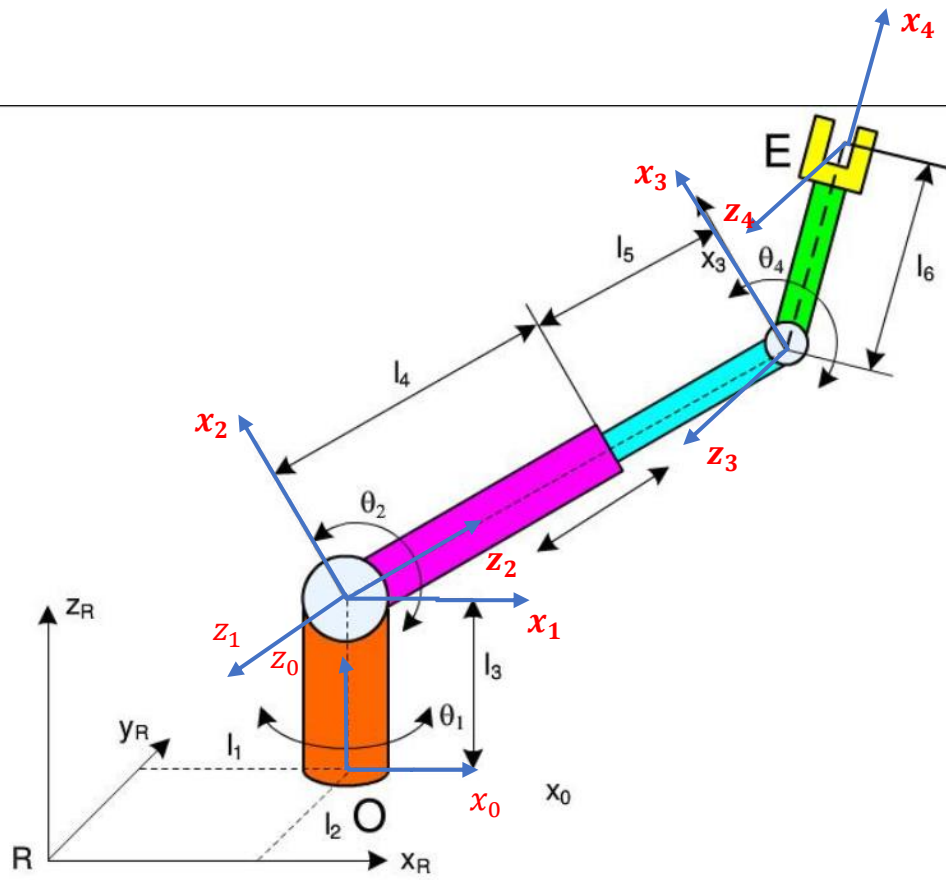
Khớp	θ	α	l	d	var
1	θ_1	0	l_4	$l_1 + l_2$	θ_1
2	θ_2	π	l_5	l_3	θ_2
3	0	0	0	$l_6 + s$	0
4	θ_4	0	0	l_7	θ_4

Bài 3:



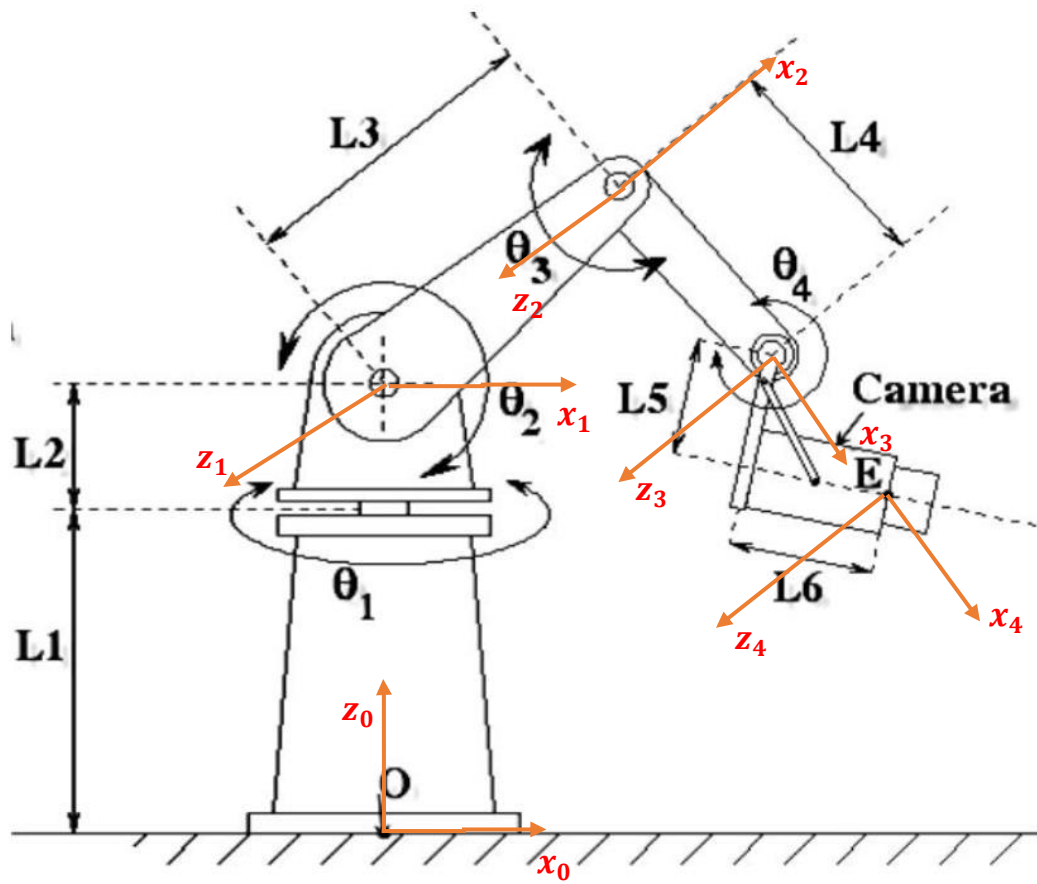
Khớp	θ	α	l	d	var	
1	θ_1	$\frac{\pi}{2}$	l_2	$l_1 + l_3$	θ_1	
2	θ_2	0	l_4	0	θ_2	
3	θ_3	0	l_5	0	θ_3	
4	θ_4	0	l_6	0	θ_4	

Bài 4:



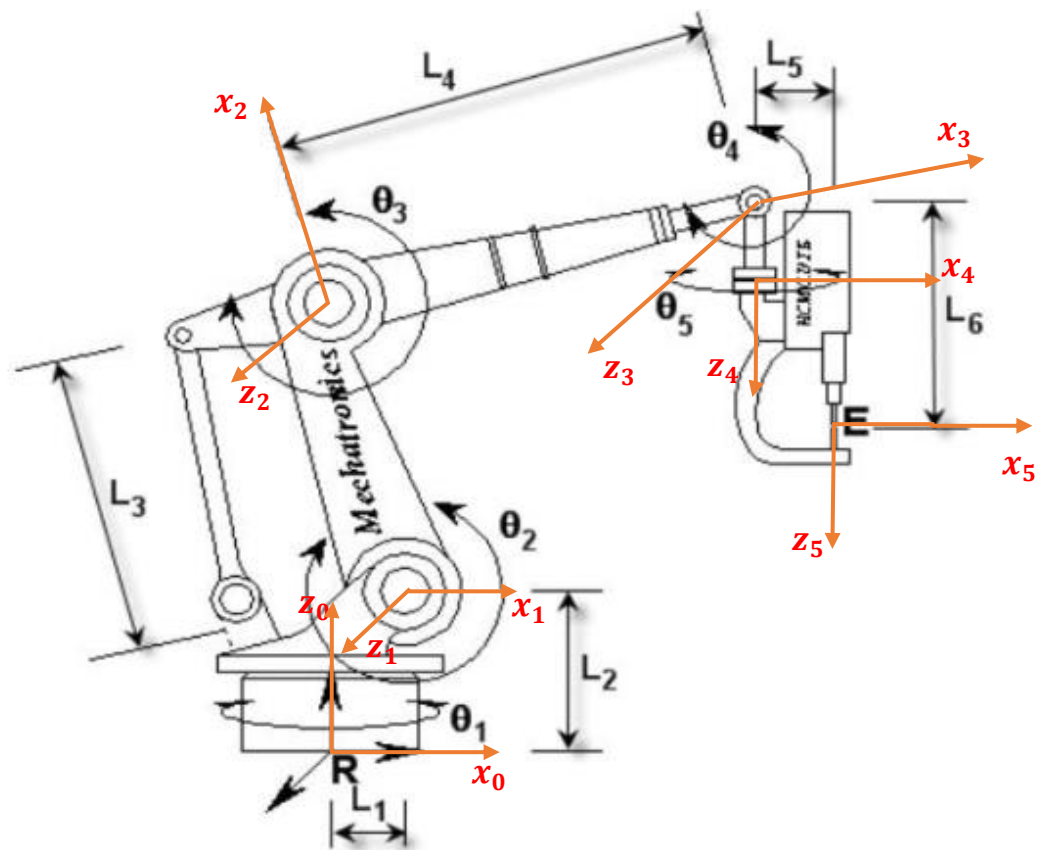
Khớp	θ	α	l	d	var
1	θ_1	$\frac{\pi}{2}$	0	l_3	θ_1
2	$\theta_2 + \frac{\pi}{2}$	$\frac{\pi}{2}$	0	0	θ_2
3	0	$-\frac{\pi}{2}$	0	$l_4 + l_5$	l_5
4	θ_4	0	l_6	0	θ_4

Bài 6:



Khớp	θ	α	l	d	var
1	θ_1	$\frac{\pi}{2}$	0	$l_1 + l_2$	θ_1
2	θ_2	0	l_3	0	θ_2
3	θ_3	0	l_4	0	θ_3
4	θ_4	0	$\sqrt{l_5 + l_6}$	0	θ_4

Bài 7:



Khớp	θ	α	l	d	var
1	θ_1	$\frac{\pi}{2}$	l_1	l_2	θ_1
2	θ_2	0	l_3	0	θ_2
3	θ_3	0	l_4	0	θ_3
4	θ_4	$\frac{\pi}{2}$	0	0	θ_4
5	θ_5	0	l_5	l_6	θ_5