TAREA: MATRICES PROYECTO

Cinemática De Robots

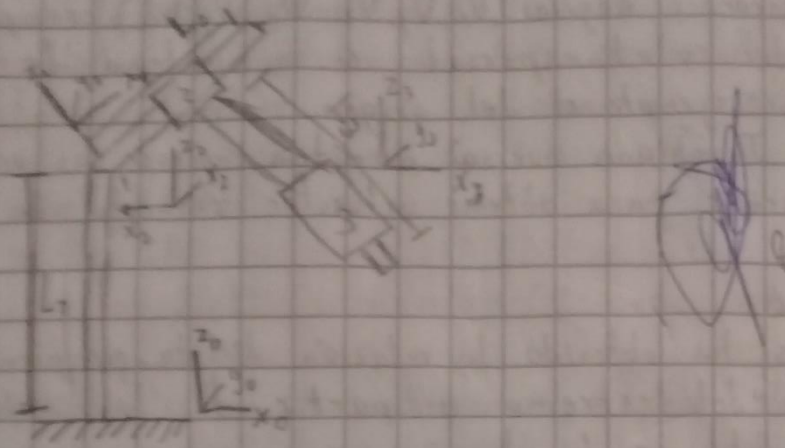
8 DE MARZO DE 2019

JESÚS ALBERTO GÁRCIA CAMACHO
8.-B T/M

i	Ai-1	∝i-1	di	θi
1	0	0	0	Θ1
2	L1	-90	0	Θ2
3	L2	-90	0	Θ3
4	L3	0	0	Θ4

$T_1^0 =$
[cos(theta1) –sen(theta1) 0 0, sen(theta1) cos(theta1) 0 0, 0 0 1 0, 0 0 0 1]
T_2^1=
[cos(theta2) –sen(theta2) 0 L2, 0 0 1 0, -sen(theta2) –cos(theta2) 0 0, 0 0 0 1]
T_3^2=
[1 0 0 L2, 0 0 1 0, 0 -1 0 0, 0 0 0 1]
T_4^3=
[1 0 0 L3, 0 1 0 0, 0 0 1 0, 0 0 0 1]
T_4°=
[(cos(theta1)(cos(theta2)) -(cos(theta1))(sin(theta2)) 0 L1+L2+L3,(cos(theta1))((sen(theta))
(sen(theta1))(sen(theta1)) 0 0, 0 0 -1 0, 0 0 0 1]

Jesus Alberto Garcia Camacho 20/02/2019



i	ai-1	αi-1	di	θi
1	0	0	0	θ1
2	L1	-90	0	θ2
3	L2	-90	0	0
4	L3	0	0	0

$$T_1^0 = \begin{bmatrix} C\theta_1 & -S\theta_1 & 0 & 0 \\ S\theta_1 & C\theta_1 & 0 & 0 \\ 0 & 0 & 1 & 0 \\ 0 & 0 & 0 & 1 \end{bmatrix} \quad T_2^1 = \begin{bmatrix} C\theta_2 & -S\theta_2 & 0 & L_1 \\ 0 & 0 & 1 & 0 \\ -S\theta_2 & -C\theta_2 & 0 & 0 \\ 0 & 0 & 0 & 1 \end{bmatrix}$$

$$T_3^2 = \begin{bmatrix} 1 & 0 & 0 & L_2 \\ 0 & 0 & 1 & 0 \\ 0 & -1 & 0 & 0 \\ 0 & 0 & 0 & 1 \end{bmatrix} \quad T_4^3 = \begin{bmatrix} 1 & 0 & 0 & L_3 \\ 0 & 1 & 0 & 0 \\ 0 & 0 & 1 & 0 \\ 0 & 0 & 0 & 1 \end{bmatrix}$$

$$T_4^0 = \begin{bmatrix} (\cos(\theta_1))(\cos(\theta_2)) & -(\cos(\theta_1))(\sin(\theta_2)) & 0 & L_1+L_2+L_3 \\ -(\sin(\theta_1))(\sin(\theta_2)) & -(\cos(\theta_1))(\sin(\theta_1)) & & \\ (\cos(\theta_1))(\sin(\theta_2)) & (\sin(\theta_1))(\sin(\theta_1)) & 0 & 0 \\ -(\cos(\theta_2))(\sin(\theta_1)) & -(\cos(\theta_1))(\cos(\theta_1)) & & \\ 0 & 0 & -1 & 0 \\ 0 & 0 & 0 & 1 \end{bmatrix}$$

Scribe