PRACTICA 1

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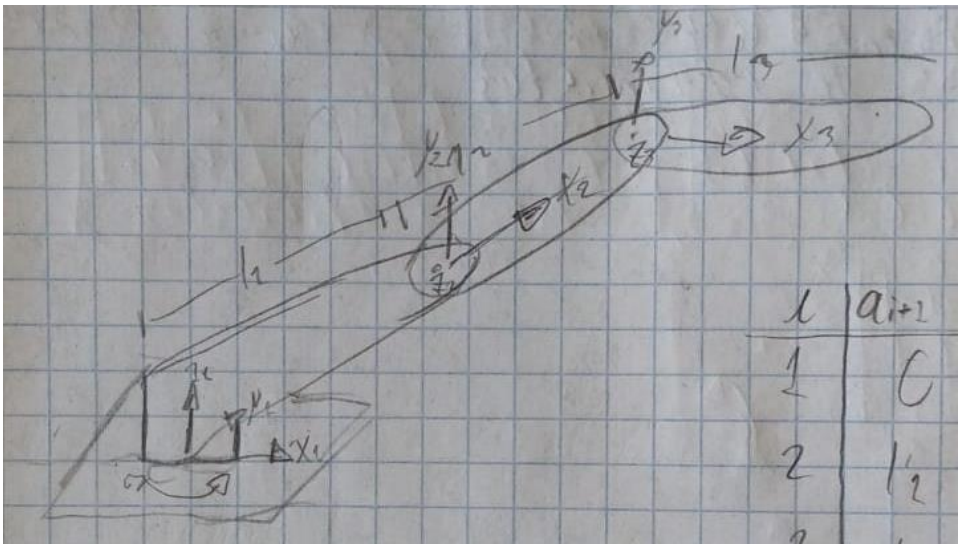
Ing. Mecatrónica

8°B T/M

Cinemática de robots



i	ai-1	$\alpha i-1$	di	θi
1	0	-90	0	$\theta 1$
2	L1	0	0	$\theta 2$
3	L2	0	0	$\theta 3$

$$T_i^{i-1} = \begin{bmatrix} C\theta_i & -S\theta_i & 0 & a_{i-1} \\ S\theta_i C\alpha_{i-1} & C\theta_i C\alpha_{i-1} & -S_{i-1} & -d_i S\alpha_{i-1} \\ S\theta_i S\alpha_{i-1} & C\theta_i S\alpha_{i-1} & C_{i-1} & d_i S\alpha_{i-1} \\ 0 & 0 & 0 & 1 \end{bmatrix}$$

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

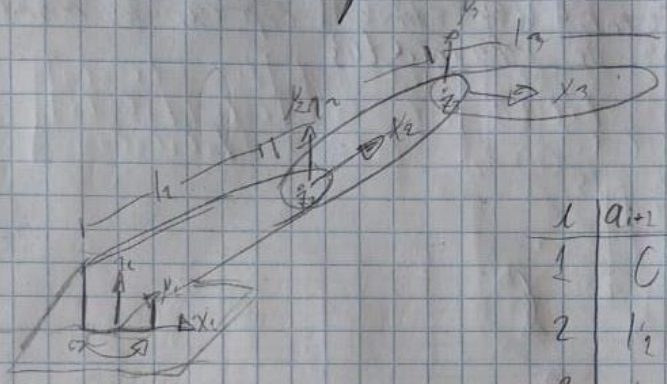
$$T_2^1 = \begin{bmatrix} C\theta_1 & -S\theta_1 & 0 & 0 \\ 0 & 0 & 0 & 0 \\ -S\theta_2 & -C\theta_2 & 1 & 0 \\ 0 & 0 & 0 & 1 \end{bmatrix}$$

$$T_3^2 = \begin{bmatrix} C\theta_3 & -S\theta_3 & 0 & 0 \\ S\theta_3 & C\theta_3 & 0 & 0 \\ 0 & 0 & 1 & 0 \\ 0 & 0 & 0 & 1 \end{bmatrix}$$

EMA

FECHA

Practica 1



i	a_{i-1}	α_{i-1}	d_i	θ_i
1	0	0	0	θ_1
2	l_1		0	θ_2
3	l_2	0	0	θ_3

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

$$T_2^1 = \begin{bmatrix} C\theta_2 & -S\theta_2 & 0 & l_1 \\ 0 & 0 & 1 & 0 \\ -S\theta_2 & -C\theta_2 & 0 & 0 \\ 0 & 0 & 0 & 1 \end{bmatrix}$$

$$= \begin{bmatrix} C\theta_3 & -S\theta_3 & 0 & l_2 \\ S\theta_3 & C\theta_3 & 0 & 0 \\ 0 & 0 & 1 & 0 \\ 0 & 0 & 0 & 1 \end{bmatrix}$$