D-H Frame Rules

Rule 1: The Z-axis must be the axis of rotation for a revolute joint

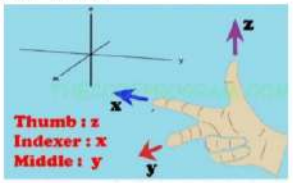
Rule 2: The X-axis must be perpendicular to its own Z-axis and to the Z-axis of the previous frame

Rule 3: Each X-axis must intersect the Z-axis of the previous frame

Note if Rule 3 is not satisfied:

- Translate the axis until it hits the other

Rule for Y-axis:



Rotation and Translation Parameters

Θ

Rotation around z_{n-1} by Θ, that is required to match x_{n-1} with x_n

α

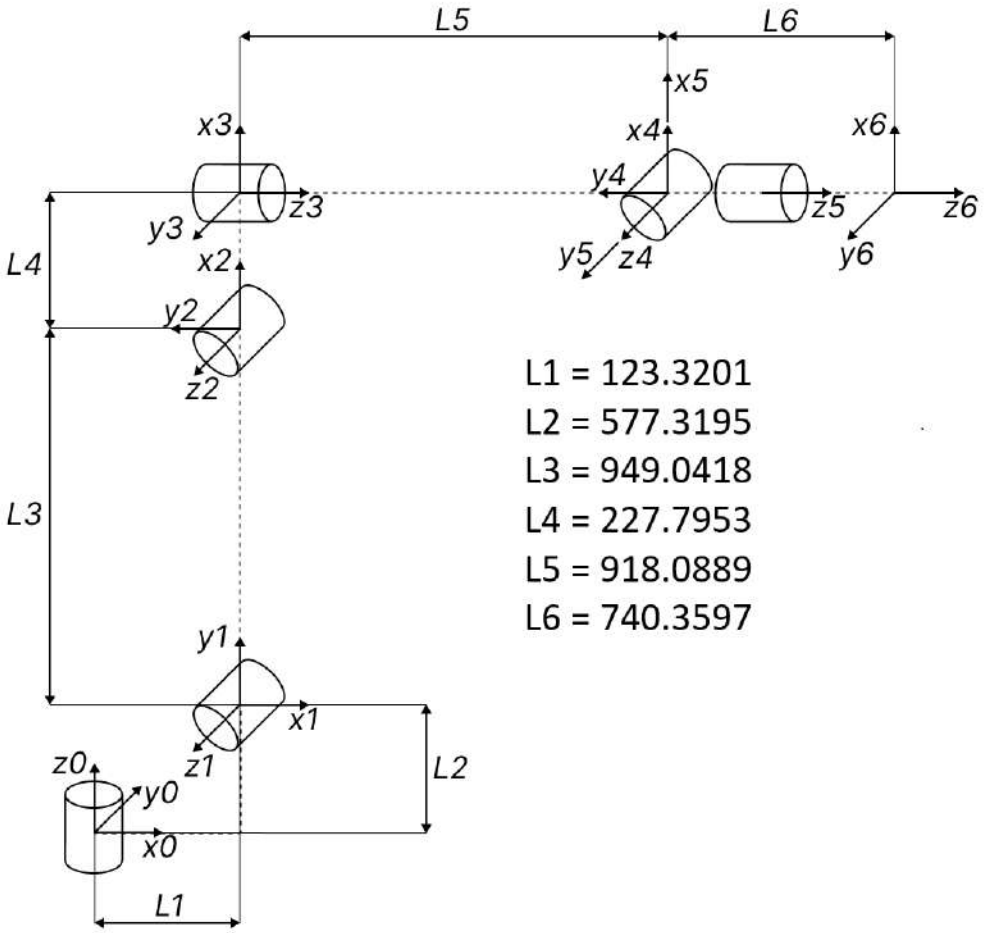
Rotation around x_n by α, that is required to match z_{n-1} with z_n

d

Distance between origins n-1 and n, along axis z_{n-1}

r

Distance between origins n-1 and n, along axis x_n



L1 = 123.3201
L2 = 577.3195
L3 = 949.0418
L4 = 227.7953
L5 = 918.0889
L6 = 740.3597

n	θ	α	r	d
1	θ	90°	L1	L2
2	θ+90°	0°	L3	0
3	θ	90°	L4	0
4	θ	270°	0	L5
5	θ	90°	0	0
6	θ	0°	0	L6