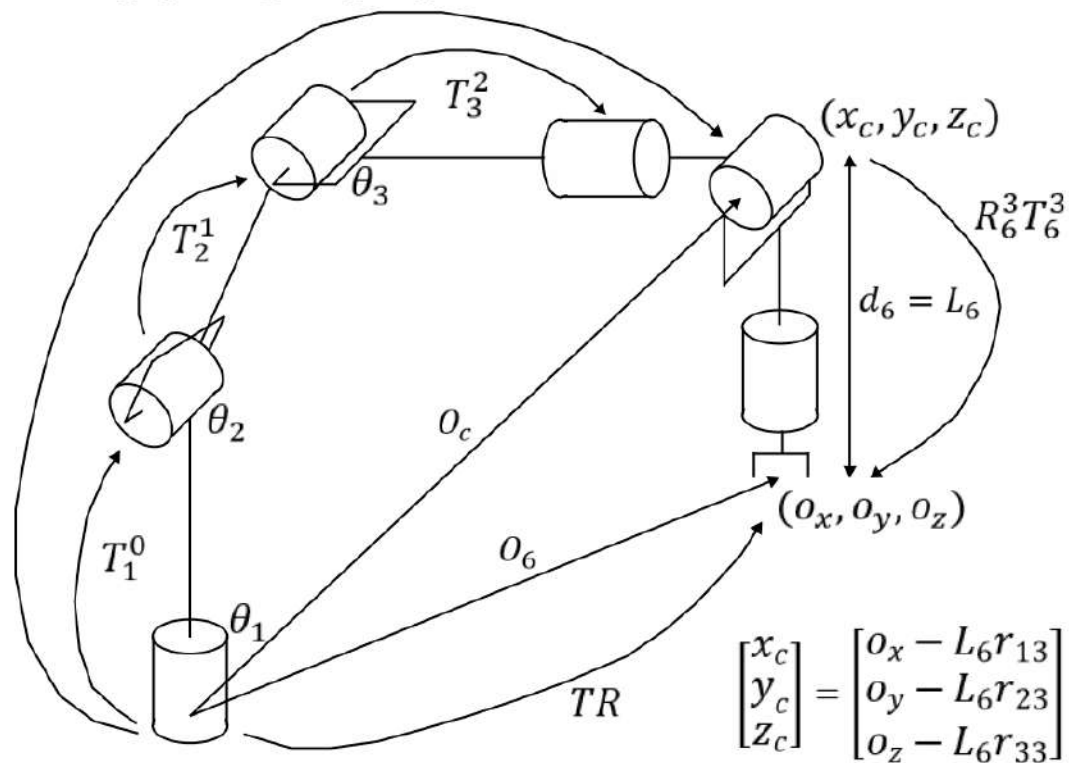
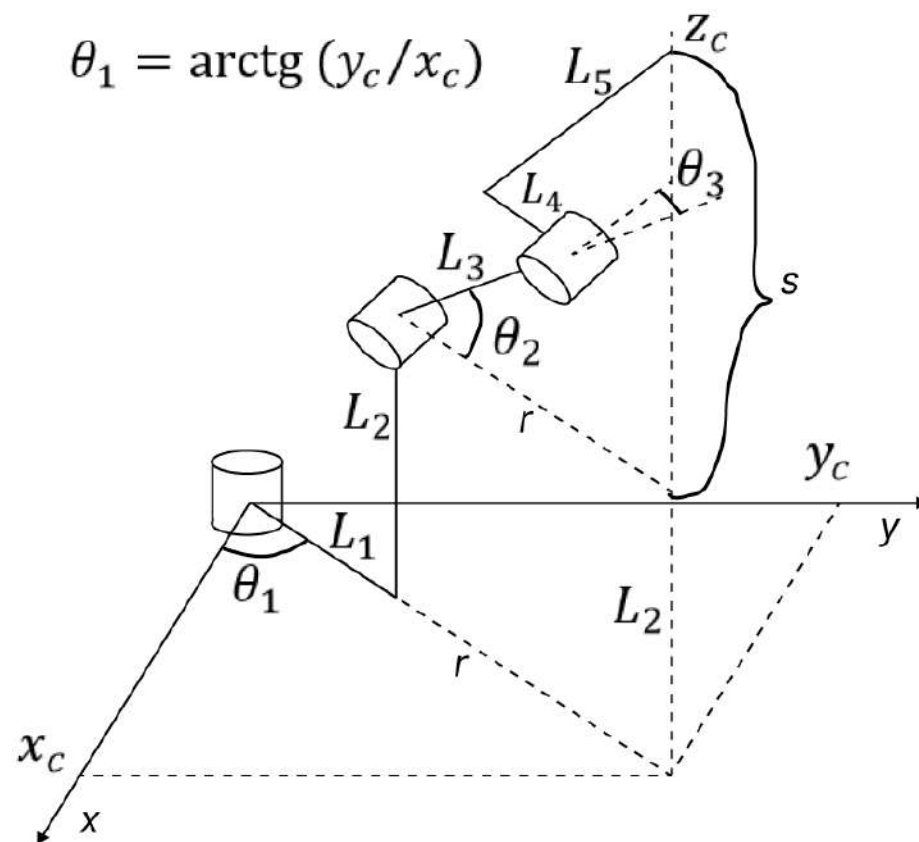


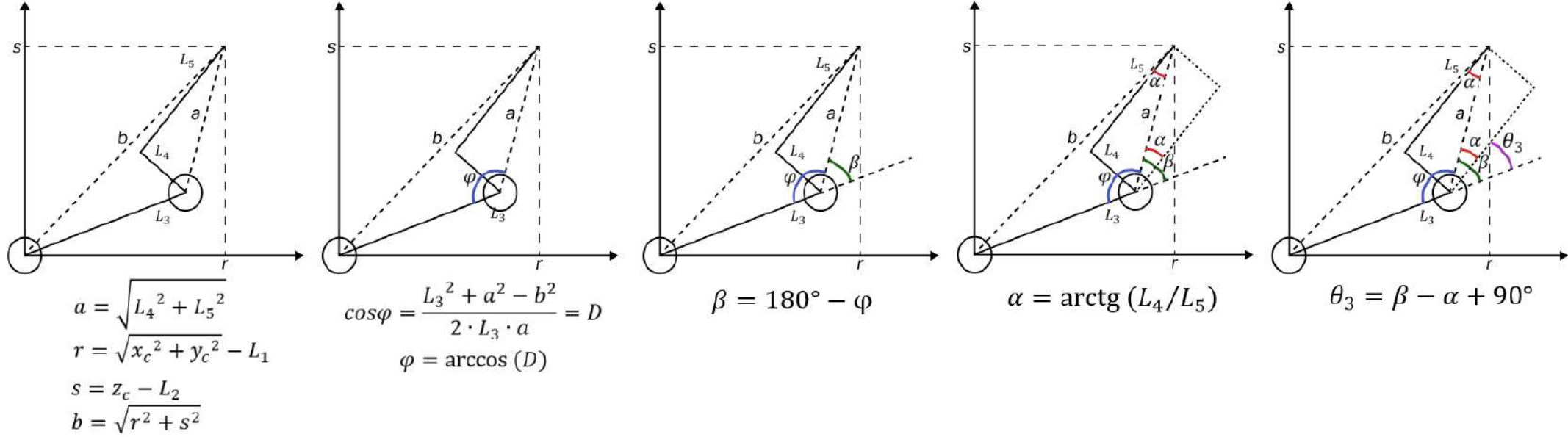
$$R_3^0 T_3^0 = T_1^0 \cdot T_2^1 \cdot T_3^2$$



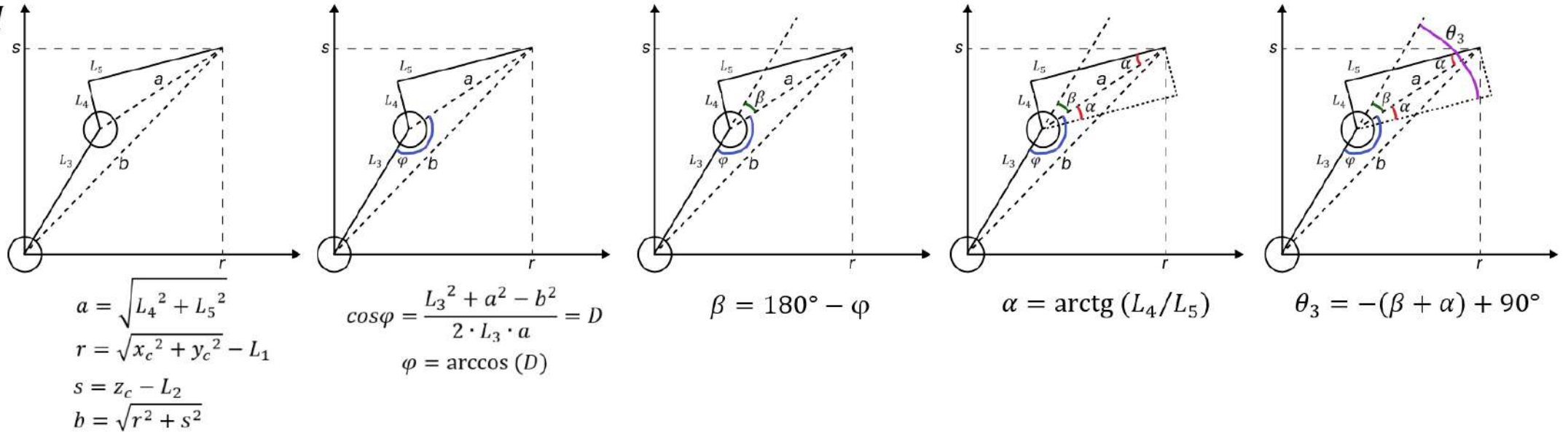
$$\theta_1 = \arctg(y_c/x_c)$$

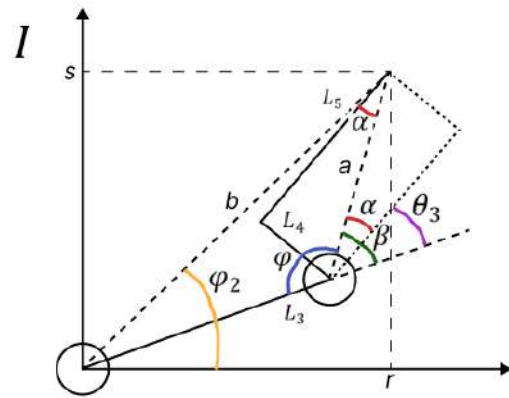


I

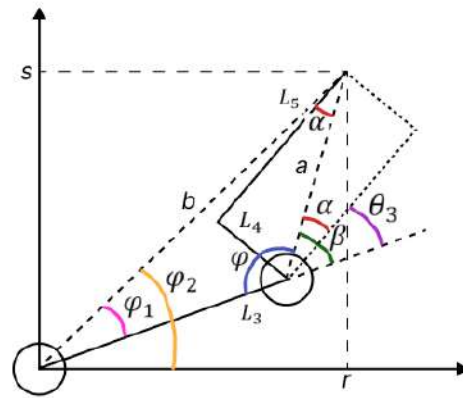


II



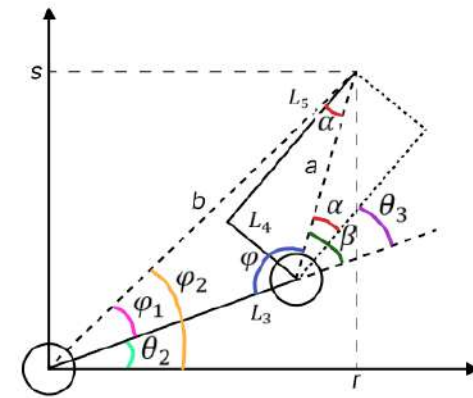


$$\varphi_2 = \arctg(s/r)$$

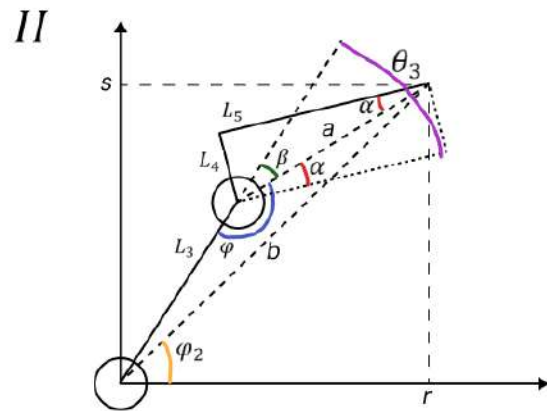


$$\cos \varphi_1 = \frac{L_3^2 + b^2 - a^2}{2 \cdot L_3 \cdot a} = D_1$$

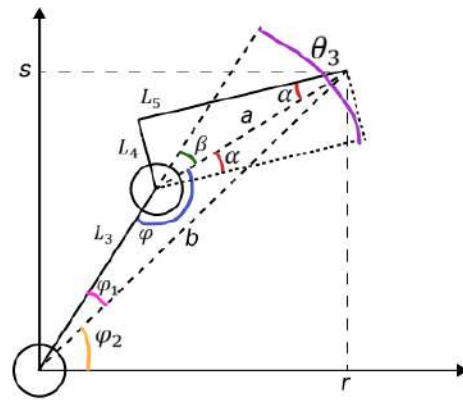
$$\varphi_1 = \arccos(D_1)$$



$$\theta_2 = \varphi_2 - \varphi_1$$

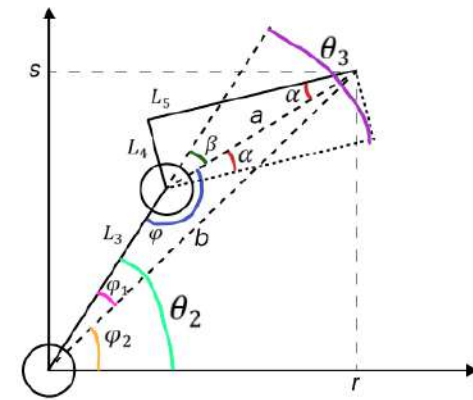


$$\varphi_2 = \arctg(s/r)$$

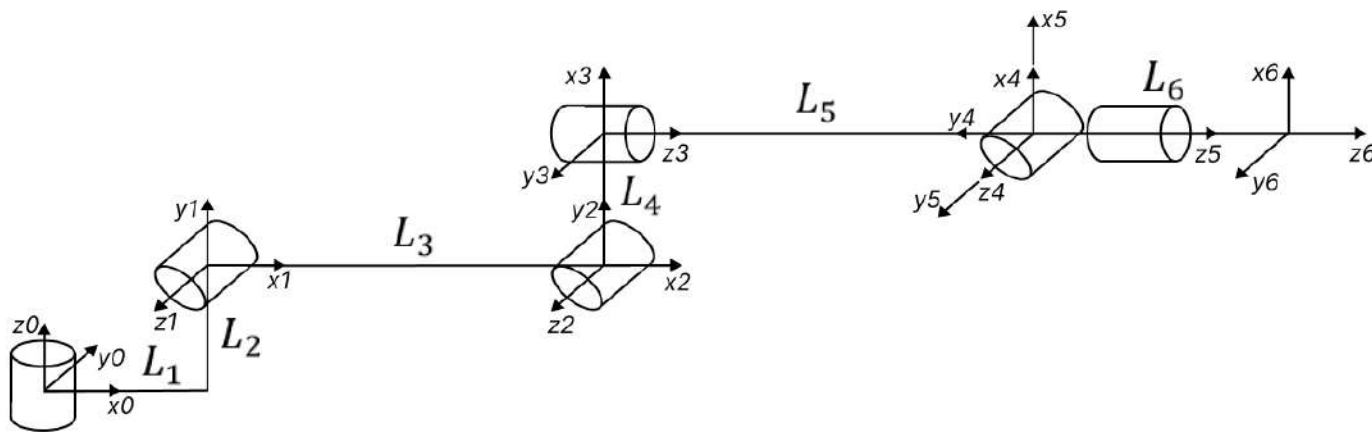


$$\cos \varphi_1 = \frac{L_3^2 + b^2 - a^2}{2 \cdot L_3 \cdot a} = D_1$$

$$\varphi_1 = \arccos(D_1)$$



$$\theta_2 = \varphi_2 + \varphi_1$$



$n$	$\theta$	$\alpha$	$r$	$d$
1	$\theta$	$90^\circ$	$L_1$	$L_2$
2	$\theta$	$0^\circ$	$L_3$	0
3	$\theta + 90^\circ$	$90^\circ$	$L_4$	0
4	$\theta$	$270^\circ$	0	$L_5$
5	$\theta$	$90^\circ$	0	0
6	$\theta$	$0^\circ$	0	$L_6$

$$R_6^3 = \begin{bmatrix} \cos\theta_4 \cos\theta_5 \cos\theta_6 - \sin\theta_4 \sin\theta_6 & -\cos\theta_4 \cos\theta_5 \sin\theta_6 - \sin\theta_4 \cos\theta_6 & \cos\theta_4 \sin\theta_5 \\ \sin\theta_4 \cos\theta_5 \cos\theta_6 + \cos\theta_4 \sin\theta_6 & -\sin\theta_4 \cos\theta_5 \sin\theta_6 + \cos\theta_4 \cos\theta_6 & \sin\theta_4 \sin\theta_5 \\ -\sin\theta_5 \cos\theta_6 & \sin\theta_5 \sin\theta_6 & \cos\theta_5 \end{bmatrix}$$

$$\theta_4 = \arctg(R_6^3(2.3)/R_6^3(1.3))$$

$$\theta_5 = \arccos(R_6^3(3.3))$$

$$\theta_6 = \arctg(-R_6^3(3.2)/R_6^3(3.1))$$

$$R = R_3^0 \cdot R_6^3 \rightarrow R_6^3 = R \cdot (R_3^0)^T$$