

i	$\Theta_i$	$d_i$	$a_i$	$\alpha_i$	$\sigma_i$
1	$q_1$	$L_1$	0	$90^\circ$	0
2	$q_2$	0	0	$90^\circ$	$90^\circ$
3	0	$q_3$	0	0	0

$i = 1$

	$\cos(q_1)$	0	$\sin(q_1)$	0
$A1=$	$\sin(q_1)$	0	$-\cos(q_1)$	0
	0	1	0	$L_1$
	0	0	0	1

$i = 2$

	$\cos(q_2+90)$	0	$\sin(q_2+90)$	0
$A2=$	$\sin(q_2+90)$	0	$-\cos(q_2+90)$	0
	0	1	0	0
	0	0	0	1

$i = 3$

	1	0	0	0
$A3=$	0	1	0	0
	0	0	1	$q_3$
	0	0	0	1

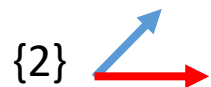
$i = 1$

$\Theta_1 = q_1$

$d_1 = L_1$

$a_1 = 0$

$\alpha_1 = 90^\circ$



$i = 2$

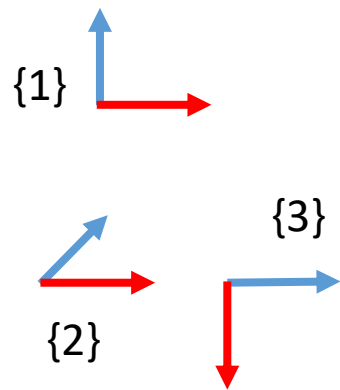
$\Theta_2 = q_2$

$d_2 = 0$

$a_2 = 0$

$\alpha_2 = 90^\circ$

$\sigma_2 = 90^\circ$



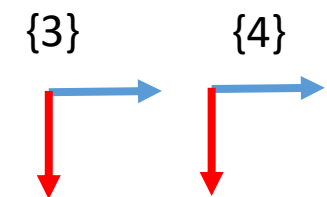
$i = 3$

$\Theta_3 = 0$

$d_3 = q_3$

$a_3 = 0$

$\alpha_3 = 90^\circ$



$$A = \begin{bmatrix} c(q_1) & 0 & s(q_1) & 0 \\ s(q_1) & 0 & -c(q_1) & 0 \\ 0 & 1 & 0 & L_1 \\ 0 & 0 & 0 & 1 \end{bmatrix} \begin{bmatrix} c(q_2+90) & 0 & s(q_2+90) & 0 \\ s(q_2+90) & 0 & -c(q_2+90) & 0 \\ 0 & 1 & 0 & 0 \\ 0 & 0 & 0 & 1 \end{bmatrix} \begin{bmatrix} 1 & 0 & 0 & 0 \\ 0 & 1 & 0 & 0 \\ 0 & 0 & 1 & q_3 \\ 0 & 0 & 0 & 1 \end{bmatrix}$$

$$A = \begin{bmatrix} c(q_1)c(q_2+90) & s(q_1) & c(q_1)s(q_2+90) & 0 \\ s(q_1)c(q_2+90) & -c(q_1) & s(q_1)s(q_2+90) & 0 \\ s(q_2+90) & 0 & -c(q_2+90) & L_1 \\ 0 & 0 & 0 & 1 \end{bmatrix} \begin{bmatrix} 1 & 0 & 0 & 0 \\ 0 & 1 & 0 & 0 \\ 0 & 0 & 1 & q_3 \\ 0 & 0 & 0 & 1 \end{bmatrix}$$

$$A = \begin{bmatrix} c(q_1)c(q_2+90) & s(q_1) & c(q_1)s(q_2+90) & c(q_1)s(q_2+90)q_3 \\ s(q_1)c(q_2+90) & -c(q_1) & s(q_1)s(q_2+90) & s(q_1)s(q_2+90)q_3 \\ s(q_2+90) & 0 & -c(q_2+90) & L_1 - c(q_2+90)q_3 \\ 0 & 0 & 0 & 1 \end{bmatrix}$$

$$dx/dq = [s(q_2+90)c(q_1)]dq_3 + [q_3c(q_2+90)c(q_1)]dq_2 - [q_3s(q_2+90)s(q_1)]dq_1$$

$$dy/dq = [s(q_2+90)s(q_1)]dq_3 + [q_3c(q_2+90)s(q_1)]dq_2 + [q_3s(q_2+90)c(q_1)]dq_1$$

$$dy/dq = [q_3s(q_2+90)]dq_2 - [c(q_2+90)]dq_3$$

