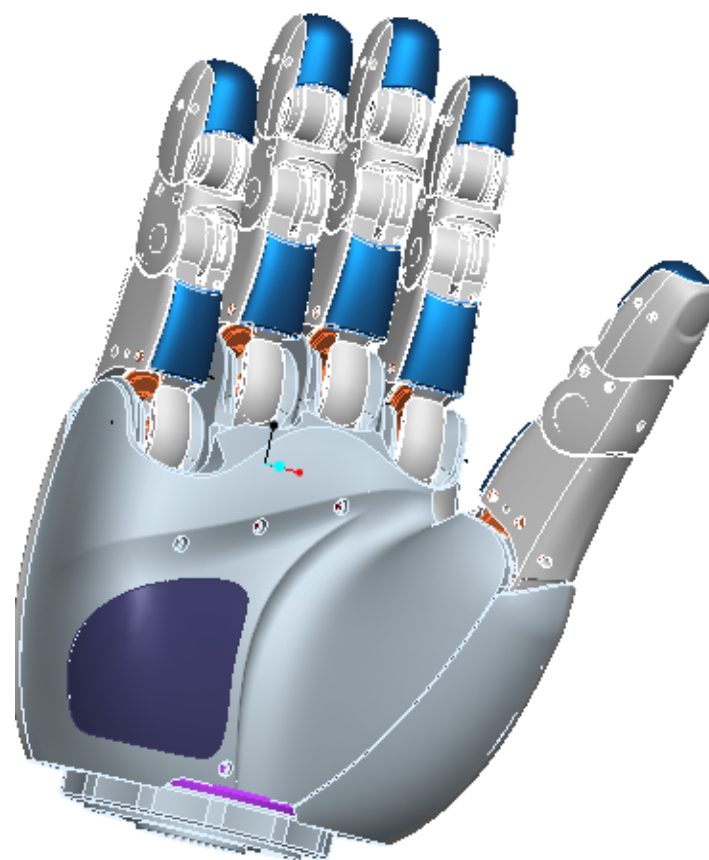


Left Hand



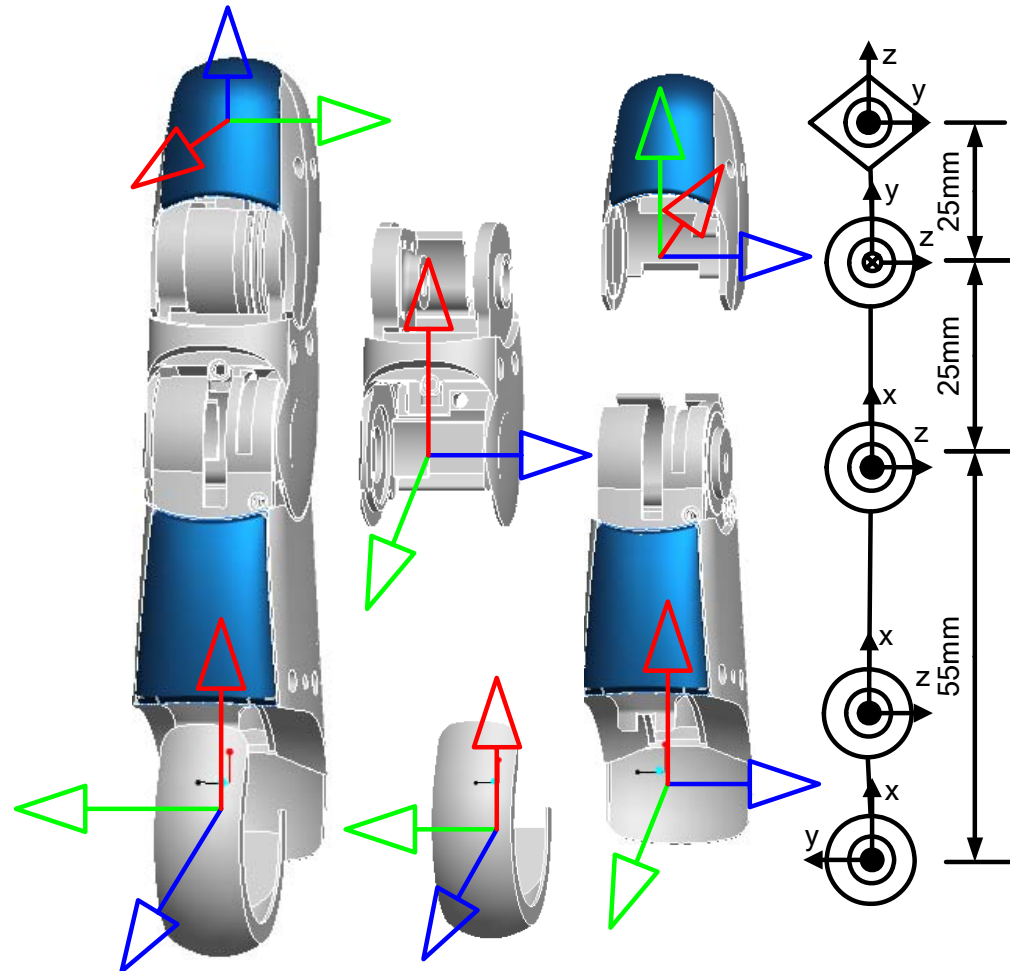
Right Hand

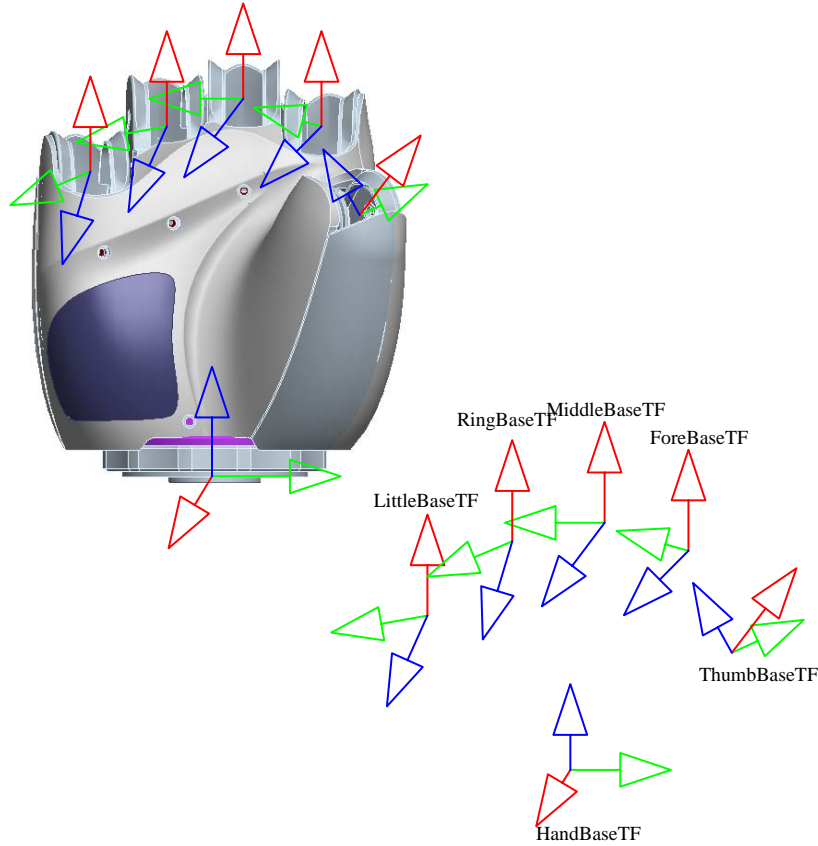
DH Parameter

Joint	D[mm]	$\varphi$	$a$ [mm]	$\alpha$
0	0	0	0	0
1	0	0	0	$\pi/2$
2	0	0	55	0
3	0	$-\pi/2$	25	0
4	25	$\pi$	0	$-\pi/2$

Joint Limits

Joint	Lower Limit	Upper Limit
0	$-15^\circ$	$15^\circ$
1	$5^\circ$	$85^\circ$
2	$5^\circ$	$65^\circ$





ThumbBaseTF:

$$T_{AR} = \begin{bmatrix} 0.429052 & -0.571046 & -0.699872 & 0.06217593 \\ 0.187171 & 0.814201 & -0.549586 & 0.044372912 \\ 0.883675 & 0.104806 & 0.456218 & 0.078734808 \\ 0 & 0 & 0 & 1 \end{bmatrix}$$

ForeBaseTF:

$$T_{BR} = \begin{bmatrix} 0 & -0.087156 & 0.996195 & -0.002529881 \\ 0 & -0.996195 & -0.087156 & 0.03680013 \\ 1 & 0 & 0 & 0.107783545 \\ 0 & 0 & 0 & 1 \end{bmatrix}$$

MiddleBaseTF

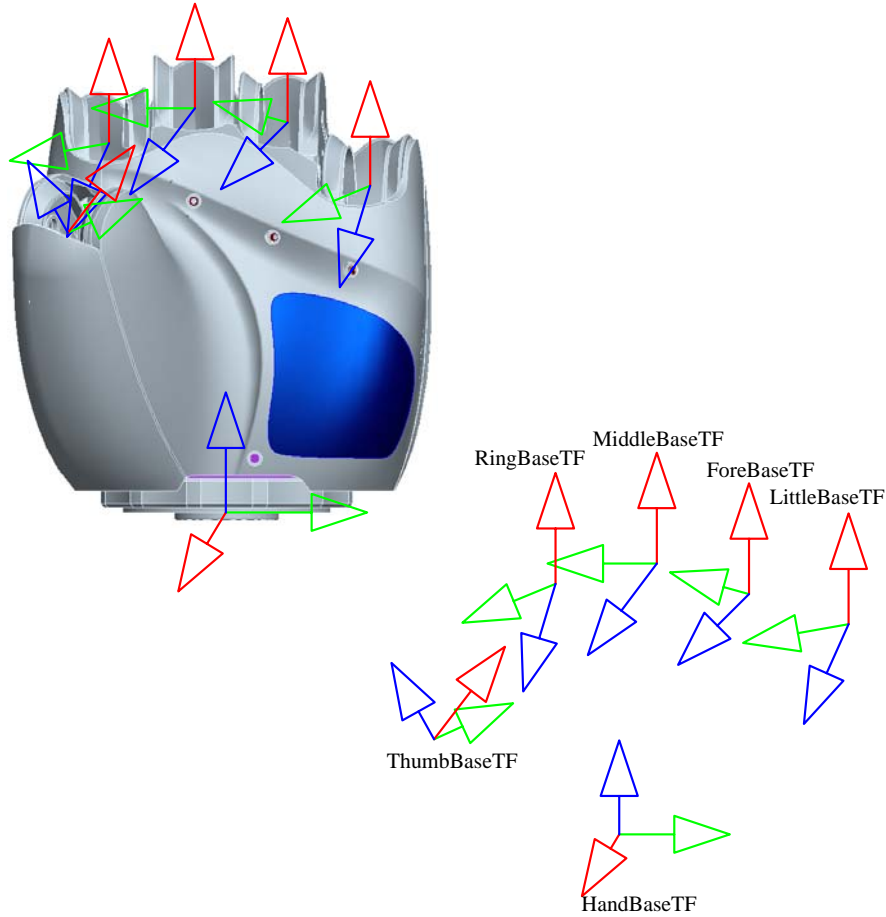
$$T_{CR} = \begin{bmatrix} 0 & 0 & 1 & -0.0037 \\ 0 & -1 & 0 & 0.01 \\ 1 & 0 & 0 & 0.117783545 \\ 0 & 0 & 0 & 1 \end{bmatrix}$$

RingBaseTF:

$$T_{DR} = \begin{bmatrix} 0 & 0.087156 & 0.996195 & -0.02529881 \\ 0 & -0.996195 & 0.087156 & -0.01680013 \\ 1 & 0 & 0 & 0.11258354 \\ 0 & 0 & 0 & 1 \end{bmatrix}$$

LittleBaseTF:

$$T_{ER} = \begin{bmatrix} 0 & 0.173648 & 0.984808 & 0.000971571 \\ 0 & -0.984808 & 0.173648 & -0.0433963 \\ 1 & 0 & 0 & 0.093583545 \\ 0 & 0 & 0 & 1 \end{bmatrix}$$



ThumbBaseTF:

$$T_{AL} = \begin{bmatrix} 0.429052 & 0.571046 & -0.699872 & 0.062175936 \\ -0.187171 & 0.814201 & 0.549586 & -0.04437291 \\ 0.883675 & -0.104806 & 0.456218 & 0.079234808 \\ 0 & 0 & 0 & 1 \end{bmatrix}$$

ForeBaseTF:

$$T_{BL} = \begin{bmatrix} 0 & 0.087156 & 0.996195 & -0.002529881 \\ 0 & -0.996195 & 0.087156 & -0.03680013 \\ 1 & 0 & 0 & 0.108283545 \\ 0 & 0 & 0 & 1 \end{bmatrix}$$

MiddleBaseTF:

$$T_{CL} = \begin{bmatrix} 0 & 0 & 1 & -0.0037 \\ 0 & -1 & 0 & -0.001 \\ 1 & 0 & 0 & 0.11828354 \\ 0 & 0 & 0 & 1 \end{bmatrix}$$

RingBaseTF:

$$T_{DL} = \begin{bmatrix} 0 & -0.087156 & 0.996195 & -0.002529881 \\ 0 & -0.996195 & -0.087156 & 0.01680013 \\ 1 & 0 & 0 & 0.11308354 \\ 0 & 0 & 0 & 1 \end{bmatrix}$$

LittleBaseTF:

$$T_{EL} = \begin{bmatrix} 0 & -0.173648 & 0.984808 & 0.971571 \\ 0 & -0.984808 & -0.173648 & 0.0433963 \\ 1 & 0 & 0 & 0.094083545 \\ 0 & 0 & 0 & 1 \end{bmatrix}$$