$$\left[{}^{W_0}_{GL}T\right] = \left[{}^{W_0}_{B}T\right]\left[{}^{B}_{0}T\right]\left[{}^{0}_{6}T\right]\left[{}^{6}_{GL}T\right]$$

$$\left[{}^{0}_{6}T\right] = \left[{}^{W_0}_{0}T\right]^{-1}\left[{}^{W_0}_{GL}T\right]\left[{}^{6}_{GL}T\right]^{-1}$$

$$\left\{{}^{0}P_6\right\} = \left\{{}^{0}P_4\right\} = \begin{Bmatrix} {}^{0}X_4 \\ {}^{0}Y_4 \\ {}^{0}Z_4 \end{Bmatrix}$$

$$\boxed{\theta_1 = \operatorname{atan2}\left({}^{0}Y_4, {}^{0}X_4\right)}$$

$C_1 = \cos\theta_1$

$$E = 2L_h\left(L_1 - \frac{{}^{0}X_4}{C_1}\right) \; ; \; F = 2L_h\,{}^{0}Z_4 \; ; \; G = \frac{{}^{0}X_4^2}{C_1^2} + L_1^2 + L_h^2 - L_4^2 + {}^{0}Z_4^2 - 2\frac{L_1\,{}^{0}X_4}{C_1}$$

$$t_{1,2} = \frac{-F \pm \sqrt{E^2 + F^2 - G^2}}{G - E}$$

$S_{2\,1,2} = \operatorname{Sen}\theta_{2\,1,2} \; ; \; C_{2\,1,2} = \cos\theta_{2\,1,2}$

$$\boxed{\theta_{2\,1,2} = 2\operatorname{Tan}^{-1}(t_{1,2})}$$

$$\boxed{\theta_{4\,1,2} = \operatorname{atan2}\left(-{}^{0}Z_4 - L_h S_{2\,1,2} \, , \, \frac{{}^{0}X_4}{C_1} - L_1 - L_h C_{2\,1,2}\right) - \theta_{2\,1,2}}$$

$$\left[{}^{3}_{6}R(\theta_5, \theta_6, \theta_7)\right] = \left[{}^{0}_{3}R(\theta_1, \theta_2, \theta_3)\right]^{-1}\left[{}^{0}_{6}R\right] = \begin{bmatrix} R_{11} & R_{12} & R_{13} \\ R_{21} & R_{22} & R_{23} \\ R_{31} & R_{32} & R_{33} \end{bmatrix}$$

$$\boxed{\theta_5 = \operatorname{atan2}(R_{33}, R_{13})}$$

$$\boxed{\theta_7 = \operatorname{atan2}(-R_{22}, R_{21})}$$

$$\boxed{\theta_6 = \operatorname{atan2}\left(\frac{R_{21}}{C_7}, -R_{23}\right)}$$

$\cos\theta_7$