

$$\begin{pmatrix} \cos[\theta_1] \cos[\theta_2] \cos[\theta_3] + \sin[\theta_1] \sin[\theta_3] & \cos[\theta_3] \sin[\theta_1] - \cos[\theta_1] \cos[\theta_2] \sin[\theta_3] & \cos[\theta_1] \sin[\theta_2] \\ \cos[\theta_2] \cos[\theta_3] \sin[\theta_1] - \cos[\theta_1] \sin[\theta_3] & -\cos[\theta_1] \cos[\theta_3] - \cos[\theta_2] \sin[\theta_1] \sin[\theta_3] & \sin[\theta_1] \sin[\theta_2] \\ \cos[\theta_3] \sin[\theta_2] & -\sin[\theta_2] \sin[\theta_3] & -\cos[\theta_2] \end{pmatrix}$$