



$$SO(3) = \{R \mid R^T R = I, \det(R) = 1\}$$

roll, pitch, yaw

$$q = q_0 + q_1 i + q_2 j + q_3 k$$

$$T = \begin{bmatrix} R & t \\ 0^T & 1 \end{bmatrix} \in SE(3)$$