

ISO 9787:2013-05 (E)

Robots and robotic devices - Coordinate systems and motion nomenclatures

Contents		Page
Foreword		iv
Introduction		v
1	Scope	1
2	Normative references	1
3	Terms and definitions	1
4	General rules for coordinate systems and motion nomenclature	3
4.1	Right-hand coordinate systems	3
4.2	Translations	3
4.3	Rotations	3
4.4	Nomenclature for manipulator axes	4
5	Coordinate systems	4
5.1	World coordinate system, $O_0 - X_0 - Y_0 - Z_0$	4
5.2	Base coordinate system, $O_1 - X_1 - Y_1 - Z_1$	4
5.3	Mechanical interface coordinate system, $O_m - X_m - Y_m - Z_m$	5
5.4	Tool coordinate system (TCS), $O_t - X_t - Y_t - Z_t$	6
5.5	Mobile platform coordinate system, $O_p - X_p - Y_p - Z_p$	7
5.6	Task coordinate system, $O_k - X_k - Y_k - Z_k$	7
5.7	Object coordinate system, $O_j - X_j - Y_j - Z_j$	8
5.8	Camera coordinate system, $O_c - X_c - Y_c - Z_c$	8
Annex A (informative) Examples of coordinate systems for different mechanical structures		9
Bibliography		12