NRTDS

NRTDS contains robot trajectories of Pouring Water (PW) and Human Transfer (HT) Tasks. The tasks are conducted by 20 operators (indexed as A-T) with different skills. The training time of operators A-E (Expert) is 15-20 hours and 1-3 hours for F-T (Novice). The Data is kinematic records of nursing robot, and each column represents the joint data as follows:

Column	Dimensionality	Description of Variables
1	1	Angle of waist joint θ_1
2	1	Angle of hip joint θ_2
3-4	2	Angle of left shoulder joint θ_3,θ_4
5-6	2	Angle of left elbow joint θ_5,θ_6
7-8	2	Angle of left wrist joint θ_7,θ_8
9-17	9	Posture of left arm end effector A_1-A_9
18-20	3	Position of left arm end effector x_l,y_l,z_l
21-26	6	Angle of left manipulator θ_9-θ_{14}
27-28	2	Angle of right shoulder joint θ_{15},θ_{16}
29-30	2	Angle of right elbow joint θ_{17},θ_{18}
31-32	2	Angle of right wrist joint θ_{19},θ_{20}
33-41	9	Posture of right arm end effector A_{10}-A_{18}
42-44	3	Position of right arm end effector x_r,y_r,z_r
45-50	6	Angle of right manipulator θ_{21}-θ_{26}

Annotation records the segmentation point for each operator. In the specific experiment, we suggest that all 5 frames of data centered on the recorded point can be considered as the correct segmentation point, which is more practical.

Sub-Trajectory Segmentation:

Pouring Water (PW):

T1→T8→T3→T3→T4→T11→T11→T5→T10→T10

Human Transfer (HT):

T1→T8→T3→T3→T4→T9→T8→T9→T3→T3