

APPENDIX

Reference trajectory

The reference trajectory for the arm elevation movement and the corresponding velocity and acceleration profile are generated with the minimum angular jerk method and are shown in Fig. 1.

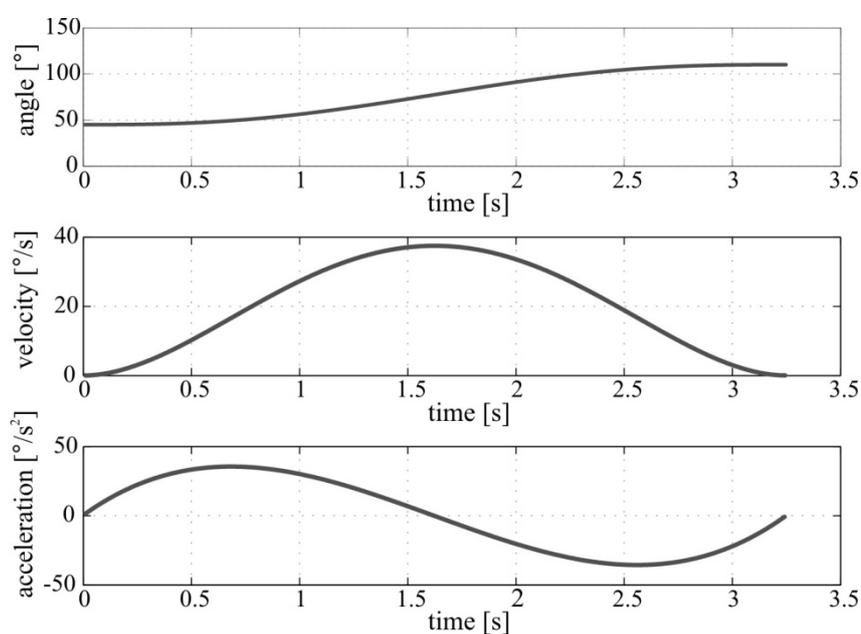


Figure 1: Trajectory generated with the minimum angular jerk method. The start position was 45° and the target position 110° . As mean velocity $20^\circ/\text{s}$ was used.

Inverse dynamic robot model

Example trajectories of the inverse dynamic robot model compared to the measured motor torque are shown in Fig. 2. The trajectories were recorded during position controller multijoint movements without subjects in the robot.

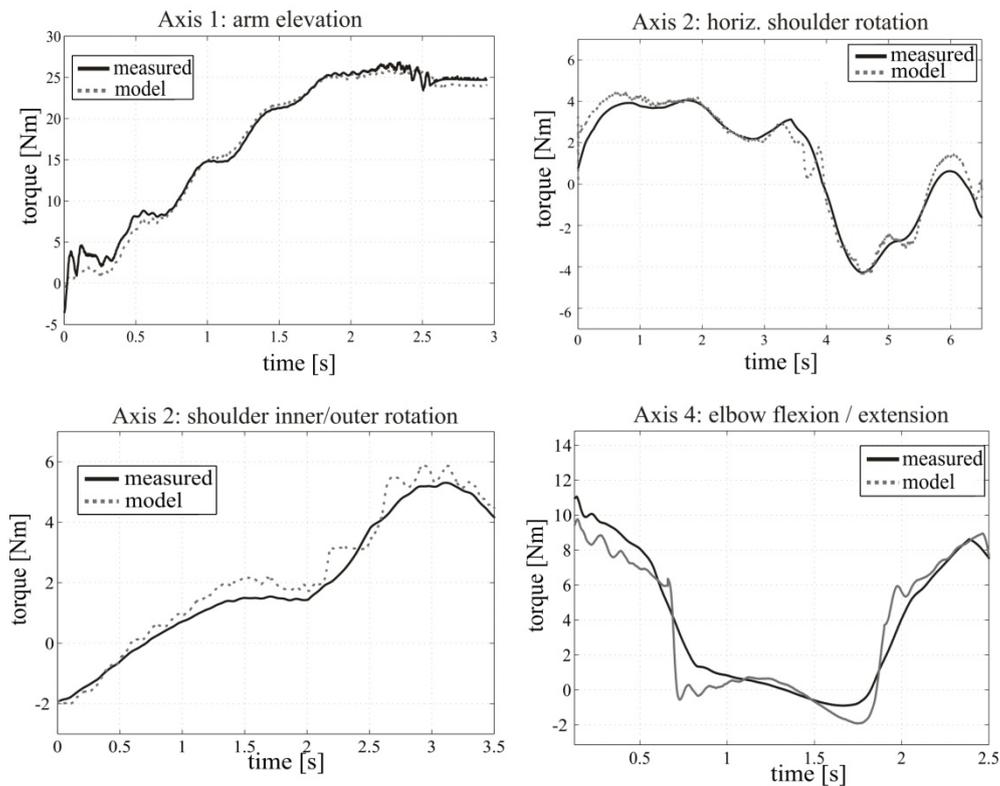


Figure 2: Example trajectories of recorded torque and inverse dynamic robot model during position controlled multijoint movements without subject

Correlation of FM score with the estimated user contribution

The estimated user contribution for the two movements is plotted against the proximal FM score of the patients to show possible correlation (Fig. 3).

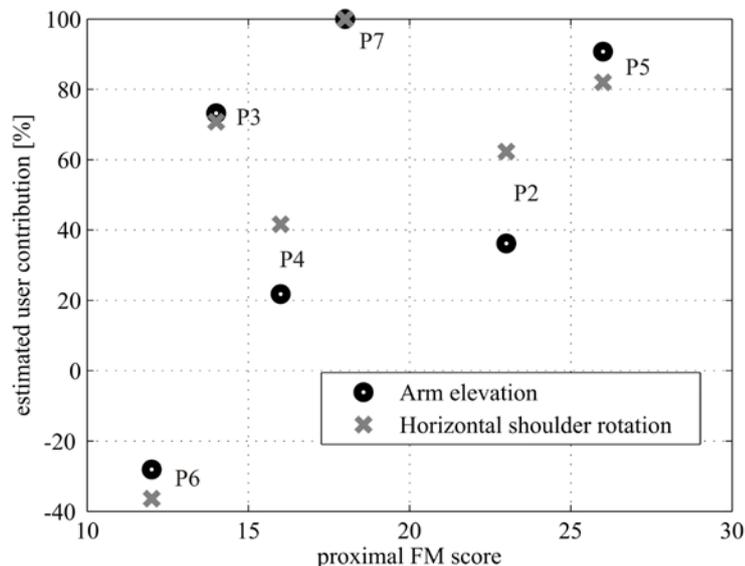


Figure 3: The estimated user contribution is plotted against the FM score for the six stroke patients