

**Table S4. Variability in the assessment parameters measured.**

	Mean(Range, i.e. difference between max and min value)								Mean(Standard deviation)	
	m1	m2	m3	m4	m5	m6	m7	m8		
aROM [°]	47.9(4.2) 130.8(1.1)	46.7(3.9) 130.7(1.3)	-34.9(6.3) 123.6(2.0)	-28.6(3.5) 87.9(2.3)	-0.5(0.7) 118.9(2.1)	-88.8(2.9) 44.6(18.3)	-34.1(4.2) 37.4(4.0)	-	QOM Time [ms]	1566(395)
pROM [°]	50.3(7.5) 130.2(0.9)	47.7(3.9) 130.6(0.7)	-29.1(12.1) 121.3(2.5)	-27.5(3.7) 89.7(1.3)	-0.6(0.4) 116.7(4.1)	-89.7(1.1) 85.5(6.9)	-33.8(3.9) 36.6(3.5)	-	QOM Peak [°]	18.6(9.4)
STRENGTH [Nm]	37.7(11.2) 30.6(12.2)	37.5(15.8) 45.5(15.4)	28.6(11.1) 32.5(8.0)	15.9(4.8) 14.8(3.9)	21.8(5.2) 24.3(7.3)	4.9(2.4) 3.1(1.7)	4.2(1.1) 4.6(2.1)	1.4(0.6) 1.5(0.6)	QOM D-P ratio [°]	1.19(0.18)
RPM 30°/s [Nm/rad]	-1.57(3.88) 0.51(5.46)	-	1.03(1.23) 0.58(1.02)	-1.05(0.94) -0.47(0.51)	0.61(0.64) 0.38(0.59)	0.00(0.26) 0.34(1.20)	0.4(0.21) 0.25(0.19)	1.89(1.57) 1.43(1.59)	QOM Reaction [ms]	877(226)
RPM 60°/s [Nm/rad]	-1.53(3.32) 0.73(4.15)	-	0.39(1.96) -0.16(1.90)	-1.42(1.10) -0.38(0.48)	0.64(0.51) 0.39(0.50)	0.09(0.24) 0.31(0.14)	0.47(0.26) 0.27(0.25)	1.67(1.38) 2.27(1.95)	QOM Precision [m]	0.036(0.01)
WORKSPACE [dm <sup>3</sup> ]	139.4(1.3)									

For aROM, pROM, WORKSPACE, STRENGTH and RPM the mean differences are shown between the maximum and minimum values measured during the four recordings of the intra-rater reliability. For the QOM assessment the standard deviation is used as an indicator for the variability of the recorded parameters. m1 = shoulder add-/abduction, m2 = shoulder extension/flexion, m3 = horizontal shoulder add-/abduction, m4 = shoulder internal/external rotation, m5 = elbow extension/flexion, m6 = elbow pro-/supination, m7 = wrist extension/flexion, m8 = hand closing/opening.