RAPPORT

Sujet:02.06.01
Organisme: BEaCHiLD

DATE DE NAISSANCE

avr-16

ÂGE

43 mois

GENRE

F

ATTEINTE

Unilatérale

CÔTÉ NON DOMINANT

D

ETIOLOGIE

AVC

MINI MACS

1

SCORE GMFCS

I

Rapport du sujet: 02.06.01
Projet CAP/Early HABIT-ILE
Evaluation biomécanique
RCT1- tâche unilatérale

Rapport sur les données

J0

	Missing from c3d	Flash	Not_reconstructed
Reach60-07_SR.c3d	[]	[]	[]
Reach60-08_EM_SR.c3d	[]	[]	[]

J90

	Missing from c3d	Flash	Not_reconstructed
Reach60-01_EM.c3d	[]	[]	[]
Reach60-02.c3d	[]	['H_styloide_radial']	[]
Reach60-03.c3d	[]	['H_epicondyle_med']	[]
Reach60-04.c3d	[]	['H_epicondyle_med', 'H_styloide_radial']	[]
Reach60-05_EM.c3d	[]	['H_styloide_radial']	[]

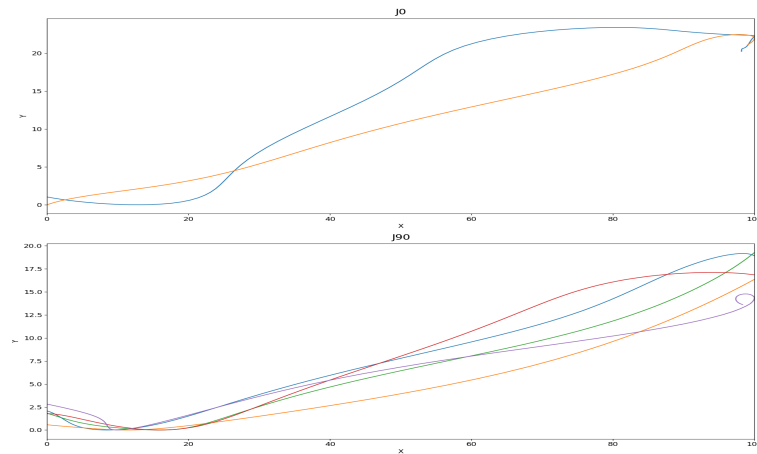## Pourcentage de perte totale
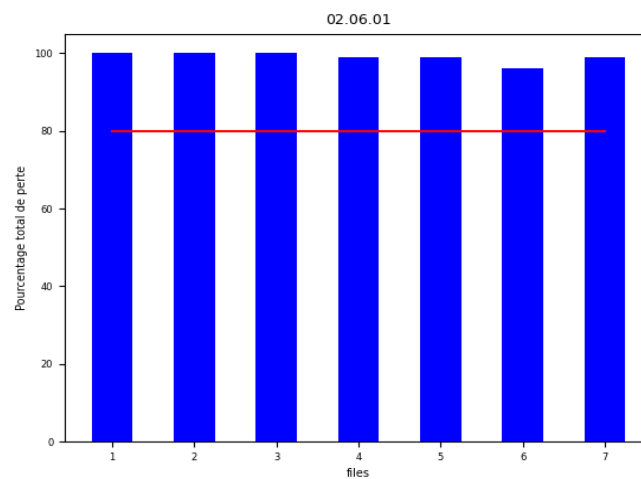
Calcul déterminé après interpolation sur VICON NEXUS
Pourcentage de perte de l'ensemble des marqueurs

Rapport du sujet: 02.06.01
Projet CAP/Early HABIT-ILE
Evaluation biomécanique
RCT1- tâche unilatérale

Présentation des essais de la tâche Reach Buzzer

Profile des trajectoires en 2D

Profile des trajectoires en 3D

Rapport du sujet: 02.06.01
Projet CAP/Early HABIT-ILE
Evaluation biomécanique
RCT1- tâche unilatérale
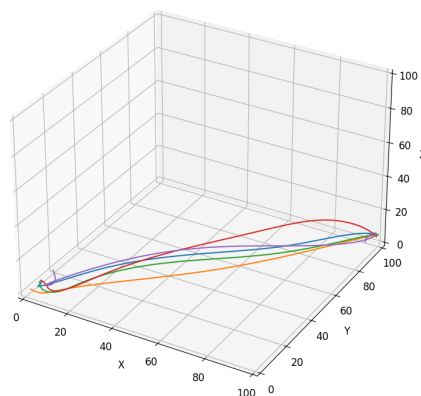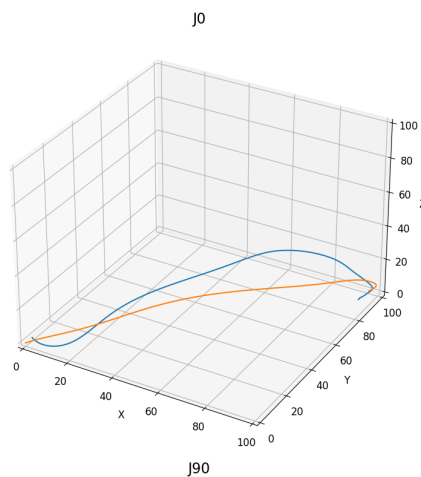
Paramètres spatio-temporels

Norme de la vitesse

Speed J0

Color Legend

| Reach60_07 | blue |
| Reach60_08 | green |

Color Legend

Reach60_01	blue
Reach60_02	green
Reach60_03	red
Reach60_04	yellow
Reach60_05	magenta
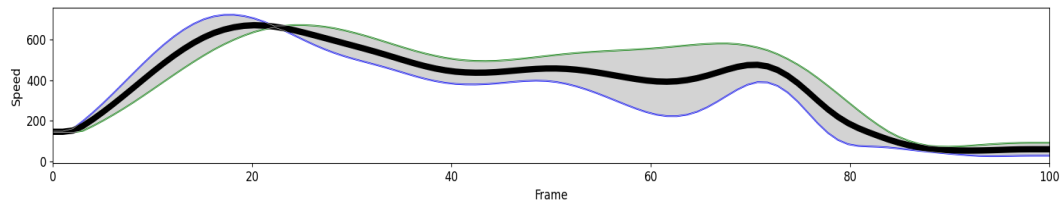
Speed J90
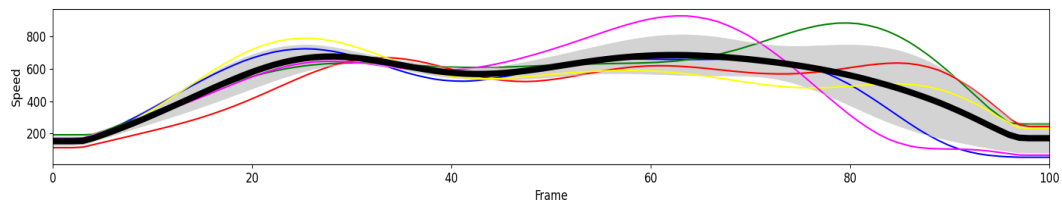
Norme de l''acceleration

Acceleration J0

Color Legend

| Reach60_07 | blue |
| Reach60_08 | green |

Color Legend

Reach60_01	blue
Reach60_02	green
Reach60_03	red
Reach60_04	yellow
Reach60_05	magenta

Acceleration J90

Rapport du sujet: 02.06.01
Projet CAP/Early HABIT-ILE
Evaluation biomécanique
RCT1- tâche unilatérale
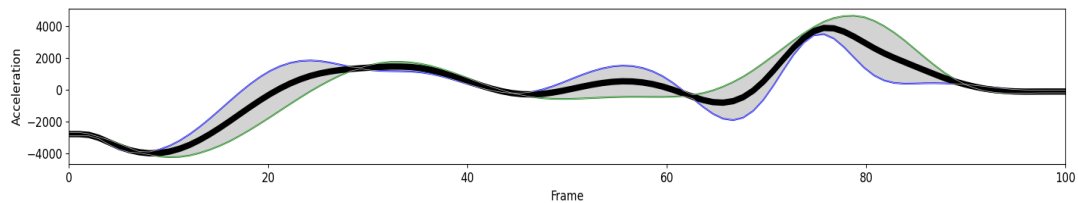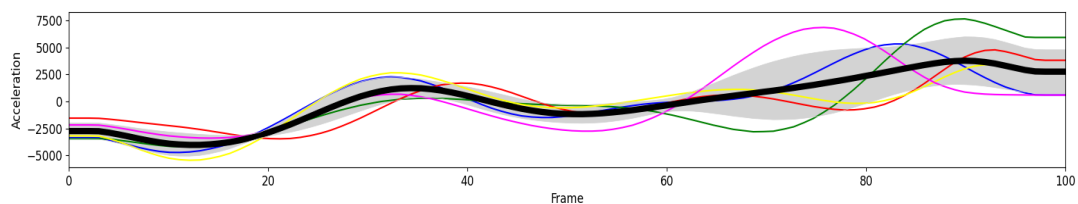
Valeurs des paramètres pour chaque fichier

J0

Files	Duration (s)	Time to peak velocity (%)	Mean Velocity (mm/s)	Peak of Velocity (mm/s)	Number of movement unit	Transport Unit	RV	Jerk	Log_jerk	Sparc	Np0	Index of curvature
Reach60_07	1.20	0.17	333.17	729.82	5.00	0.17	0.46	-6453.59	-8.77	-1.71	9.00	2.37
Reach60_08	0.75	0.24	420.58	679.02	3.00	0.23	0.62	-1483.22	-7.30	-1.70	5.00	1.71
Lower Limit	0.53	0.14	289.46	653.62	2.00	0.14	0.38	-8938.77	-9.51	-1.72	3.00	1.39
Upper Limit	1.42	0.27	464.29	755.22	6.00	0.26	0.70	1001.96	-6.57	-1.69	11.00	2.70

J90

Files	Duration (s)	Time to peak velocity (%)	Mean Velocity (mm/s)	Peak of Velocity (mm/s)	Number of movement unit	Transport Unit	RV	Jerk	Log_jerk	Sparc	Np0	Index of curvature
Reach60_01	0.69	0.25	482.54	734.96	3.00	0.23	0.66	-1489.41	-7.31	-1.78	5.00	1.81
Reach60_02	0.52	0.79	568.33	907.45	2.00	0.27	0.63	-2240.97	-7.71	-1.77	3.00	1.72
Reach60_03	0.73	0.33	487.93	678.84	3.00	0.32	0.72	-5561.08	-8.62	-1.89	5.00	1.74
Reach60_04	0.69	0.25	508.01	802.53	3.00	0.23	0.63	-2778.66	-7.93	-1.82	5.00	1.75
Reach60_05	0.70	0.63	498.74	939.11	3.00	0.26	0.53	-1200.55	-7.09	-1.63	5.00	1.77
Lower Limit	0.67	-0.33	457.80	476.23	3.00	0.18	0.58	-4712.55	-8.87	-1.89	5.00	1.70
Upper Limit	0.71	1.20	538.14	1166.18	3.00	0.33	0.70	444.47	-6.37	-1.70	5.00	1.81

Paramètres spatio-temporel

		J0	J90
Duration (s)	All trials	[1.2, 0.75]	[0.69, 0.69, 0.7]
	Mean	0.97	0.69
	Std	0.22	0.00
Time to peak velocity (%)	All trials	[0.175, 0.24]	[0.2463768115942029, 0.7884615384615384, 0.3287671232876712, 0.2463768115942029, 0.6285714285714286]
	Mean	0.21	0.45
	Std	0.03	0.22
Mean Velocity (mm/s)	All trials	[333.0, 421.0]	[483.0, 488.0, 508.0, 499.0]
	Mean	377.00	494.50
	Std	44.00	9.71
Peak of Velocity (mm/s)	All trials	[730.0, 679.0]	[735.0, 907.0, 679.0, 803.0, 939.0]
	Mean	704.50	812.60
	Std	25.50	98.84

Paramètres de qualité

Paramètres de fluidité

		J0 - Dom	J90 - Dom
Number of movement unit	All trials	[5 3]	[3 3 3 3]
	Mean	4.00	3.00
	Std	1.00	0.00
Transport movement unit	All trials	[0.17 0.23]	[0.23 0.27 0.32 0.23 0.26]
	Mean	0.20	0.26
	Std	0.03	0.03
RV	All trials	[0.46 0.62]	[0.66 0.63 0.63]
	Mean	0.54	0.64
	Std	0.08	0.01
Jerk	All trials	[-6453.59 -1483.22]	[-1489.41 -2240.97 -2778.66 -1200.55]
	Mean	-3968.41	-1927.40
	Std	2485.18	621.11
Log_jerk	All trials	[-8.77 -7.3]	[-7.31 -7.71 -8.62 -7.93 -7.09]
	Mean	-8.04	-7.73
	Std	0.74	0.53
Sparc	All trials	[-1.71 -1.7]	[-1.78 -1.77 -1.89 -1.82]
	Mean	-1.71	-1.82
	Std	0.01	0.05
Np0	All trials	[9 5]	[5 5 5 5]
	Mean	7.00	5.00
	Std	2.00	0.00

	J0	J90
ratio number of movement unit = 1	0.00	0.00

Paramètres de rectitude

		J0 - Dom	J90 - Dom
Index of curvature	All trials	[2.37 1.71]	[1.72 1.74 1.75 1.77]
	Mean	2.04	1.75
	Std	0.33	0.02

Rapport du sujet: 02.06.01
Projet CAP/Early HABIT-ILE
Evaluation biomécanique
RCT1- tâche unilatérale

Cinématique à J0

Thorax

Flexion(+)/Extension(-) | Inclinaison médiale(+)/latérale(-) | Rotation interne de l'hémi-tronc actif(+)/inactif(-)

Shoulder

Flexion(+)/Extension(-) | Adduction(+)/Abduction(-) | Rotation interne(+)/ Rotation externe(-)

Elbow

Flexion(+)/Extension(-) | Adduction(+)/Abduction(-) | Rotation interne(+)/ Rotation externe(-)

Wrist

Flexion(+)/Extension(-) | Adduction(+)/Abduction(-) | Pronation(+)/Supination(-)

Color Legend

Reach60_07.c3d	blue
Reach60_08.c3d	green

TFMD

Reach60_07.c3d	0.67
Reach60_08.c3d	-0.67

Rapport du sujet: 02.06.01
Projet CAP/Early HABIT-ILE
Evaluation biomécanique
RCT1- tâche unilatérale
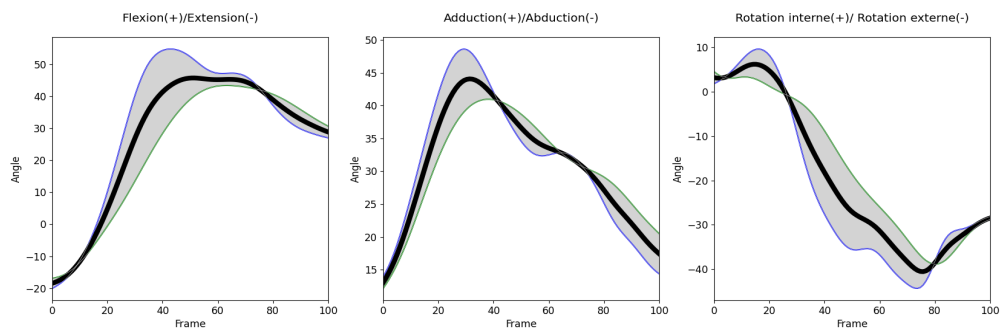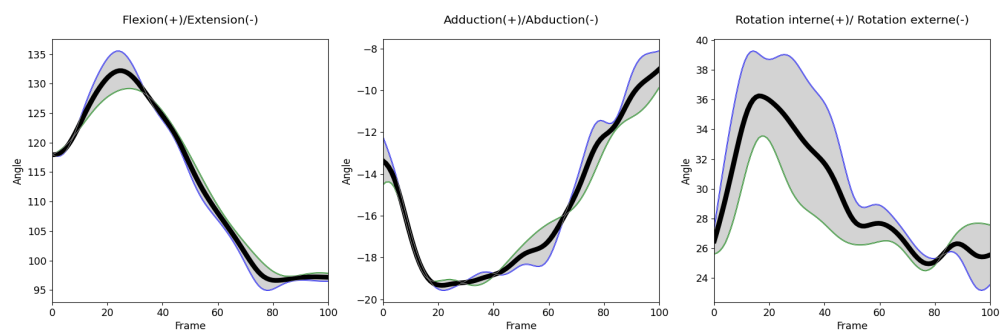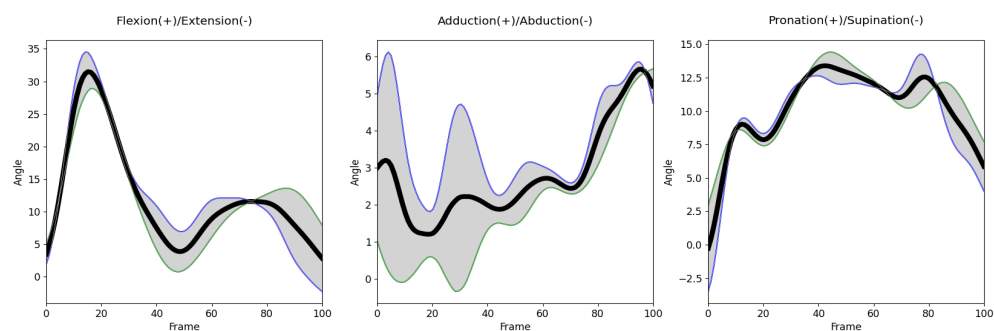
Cinématique à J90

Thorax

Shoulder
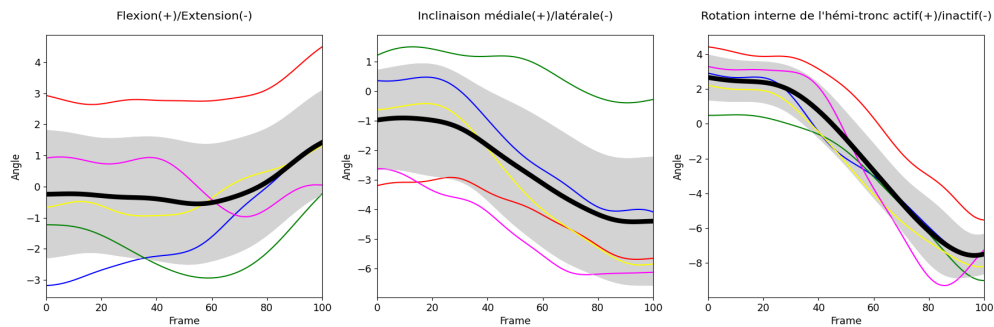
Elbow

Wrist

Color Legend

Reach60_01.c3d	blue
Reach60_02.c3d	green
Reach60_03.c3d	red
Reach60_04.c3d	yellow
Reach60_05.c3d	magenta

TFMD

Reach60_01.c3d	0.00
Reach60_02.c3d	-0.70
Reach60_03.c3d	-0.35
Reach60_04.c3d	0.80
Reach60_05.c3d	0.67

Rapport du sujet: 02.06.01
Projet CAP/Early HABIT-ILE
Evaluation biomécanique
RCT1- tâche unilatérale
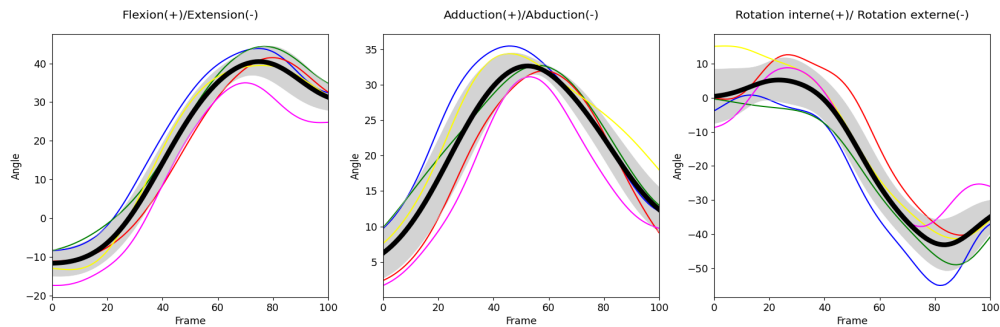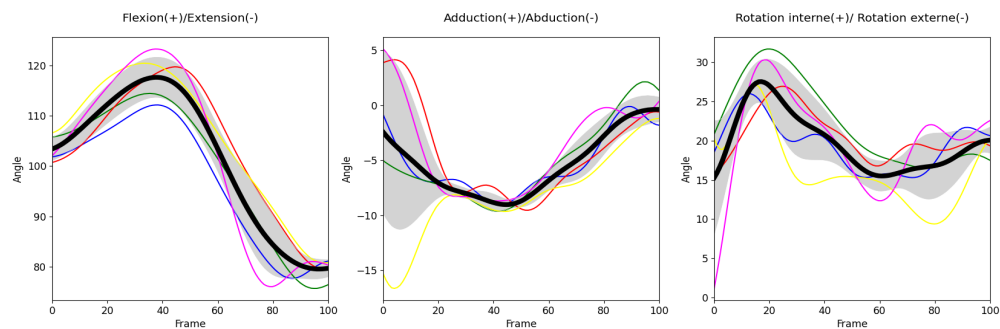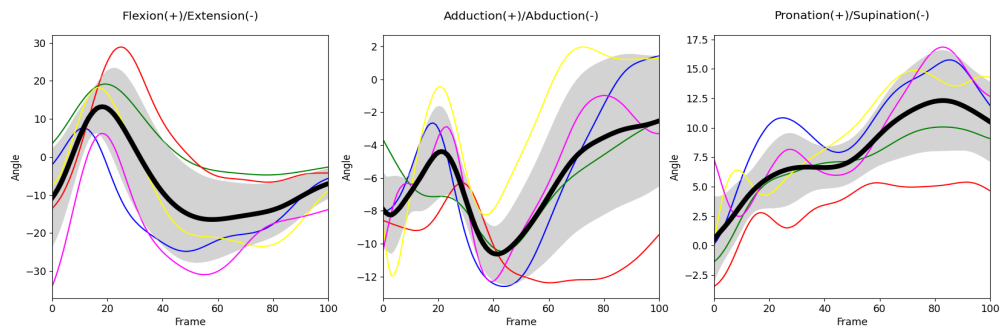
Paramètres cinématiques

Thorax

			J0	J90
Flex/ext	**ROM**	**All trials**	[9.07, 9.34]	[4.64, 2.71, 1.86, 2.26, 1.92]
		Mean	9.20534	2.677983
		Std	0.135564	1.028496
	MAX	**All trials**	[7.68, 5.47]	[1.46, -0.24, 4.5, 1.32, 0.95]
		Mean	6.574914	1.597455
		Std	1.101357	1.567109
	MIN	**All trials**	[-1.39, -3.87]	[-3.19, -2.94, 2.64, -0.94, -0.97]
		Mean	-2.630426	-1.080528
		Std	1.236921	2.086869
Inclinaison	**ROM**	**All trials**	[5.48, 6.54]	[4.55, 1.89, 2.77, 5.46, 3.58]
		Mean	6.013243	3.651505
		Std	0.528982	1.261095
	MAX	**All trials**	[-0.92, -1.19]	[0.47, 1.49, -2.92, -0.42, -2.63]
		Mean	-1.057437	-0.801415
		Std	0.132667	1.723448
	MIN	**All trials**	[-6.41, -7.73]	[-4.08, -0.4, -5.69, -5.88, -6.21]
		Mean	-7.070681	-4.45292
		Std	0.661649	2.155952
Rotations	**ROM**	**All trials**	[9.17, 9.74]	[10.45, 9.52, 9.95, 10.41, 12.58]
		Mean	9.456038	10.582516
		Std	0.28688	1.054569
	MAX	**All trials**	[1.05, 1.08]	[2.91, 0.51, 4.42, 2.2, 3.28]
		Mean	1.065018	2.664366
		Std	0.01301	1.29304
	MIN	**All trials**	[-8.12, -8.66]	[-7.54, -9.01, -5.53, -8.21, -9.3]
		Mean	-8.39102	-7.918149
		Std	0.27387	1.343229

Rapport du sujet: 02.06.01
Projet CAP/Early HABIT-ILE
Evaluation biomécanique
RCT1- tâche unilatérale

Shoulder

			J0	J90
Flex/ext	**ROM**	**All trials**	[74.86, 60.25]	[52.19, 52.72, 52.56, 52.71, 52.31]
		Mean	67.556555	52.4997
		Std	7.306993	0.212492
	MAX	**All trials**	[54.8, 43.4]	[43.87, 44.4, 41.49, 39.48, 35.0]
		Mean	49.101006	40.846641
		Std	5.701218	3.415216
	MIN	**All trials**	[-20.06, -16.85]	[-8.32, -8.32, -11.07, -13.24, -17.32]
		Mean	-18.455549	-11.653059
		Std	1.605776	3.381508
Add/Abd	**ROM**	**All trials**	[34.63, 28.81]	[25.7, 22.83, 29.54, 26.72, 29.4]
		Mean	31.720672	26.838865
		Std	2.910193	2.498953
	MAX	**All trials**	[48.62, 40.96]	[35.44, 32.72, 31.94, 34.36, 31.11]
		Mean	44.785168	33.113571
		Std	3.829899	1.584975
	MIN	**All trials**	[13.98, 12.14]	[9.74, 9.89, 2.4, 7.64, 1.7]
		Mean	13.064496	6.274706
		Std	0.919706	3.544898
Rotations	**ROM**	**All trials**	[54.0, 43.43]	[55.9, 48.68, 52.97, 56.57, 46.62]
		Mean	48.717727	52.147689
		Std	5.284547	3.922417
	MAX	**All trials**	[9.64, 4.53]	[0.83, -0.33, 12.66, 15.23, 8.85]
		Mean	7.086048	7.448387
		Std	2.555288	6.230892
	MIN	**All trials**	[-44.36, -38.9]	[-55.07, -49.01, -40.31, -41.34, -37.77]
		Mean	-41.63168	-44.699302
		Std	2.729259	6.39885

Rapport du sujet: 02.06.01
Projet CAP/Early HABIT-ILE
Evaluation biomécanique
RCT1- tâche unilatérale

Elbow

			J0	J90
Flex/ext	**ROM**	**All trials**	[40.59, 31.86]	[34.47, 38.74, 40.1, 39.66, 47.22]
		Mean	36.225815	40.038583
		Std	4.367531	4.106984
	MAX	**All trials**	[135.54, 129.18]	[112.15, 114.44, 119.72, 120.43, 123.26]
		Mean	132.357399	118.001224
		Std	3.17971	4.085611
	MIN	**All trials**	[94.94, 97.32]	[77.68, 75.7, 79.62, 80.77, 76.04]
		Mean	96.131584	77.96264
		Std	1.18782	1.976601
Add/Abd	**ROM**	**All trials**	[11.46, 9.46]	[8.97, 11.77, 13.68, 15.44, 13.8]
		Mean	10.456667	12.733126
		Std	0.999259	2.212005
	MAX	**All trials**	[-8.11, -9.88]	[-0.12, 2.12, 4.13, -1.2, 5.1]
		Mean	-8.995425	2.004881
		Std	0.881502	2.404635
	MIN	**All trials**	[-19.57, -19.33]	[-9.09, -9.65, -9.55, -16.65, -8.7]
		Mean	-19.452092	-10.728245
		Std	0.117757	2.977986
Rotations	**ROM**	**All trials**	[16.11, 9.06]	[10.7, 15.2, 11.22, 17.79, 29.17]
		Mean	12.584583	16.814313
		Std	3.529581	6.705537
	MAX	**All trials**	[39.27, 33.54]	[25.99, 31.69, 26.93, 27.16, 30.32]
		Mean	36.40802	28.419069
		Std	2.866119	2.191796
	MIN	**All trials**	[23.16, 24.49]	[15.29, 16.49, 15.71, 9.37, 1.15]
		Mean	23.823437	11.604756
		Std	0.663462	5.806151

Rapport du sujet: 02.06.01
Projet CAP/Early HABIT-ILE
Evaluation biomécanique
RCT1- tâche unilatérale

Wrist

			J0	J90
Flex/ext	**ROM**	**All trials**	[36.78, 28.16]	[32.42, 23.92, 42.43, 41.75, 40.22]
		Mean	32.472362	36.146618
		Std	4.308356	7.084614
	MAX	**All trials**	[34.52, 28.9]	[7.58, 19.18, 28.9, 18.23, 6.18]
		Mean	31.710742	16.01573
		Std	2.807412	8.352736
	MIN	**All trials**	[-2.26, 0.74]	[-24.83, -4.74, -13.53, -23.52, -34.04]
		Mean	-0.76162	-20.130888
		Std	1.500943	10.076531
Add/Abd	**ROM**	**All trials**	[4.3, 6.0]	[14.04, 7.87, 6.08, 13.95, 11.33]
		Mean	5.151498	10.653902
		Std	0.849811	3.207361
	MAX	**All trials**	[6.12, 5.67]	[1.44, -2.61, -6.3, 1.97, -0.99]
		Mean	5.895148	-1.299172
		Std	0.225301	2.999088
	MIN	**All trials**	[1.82, -0.33]	[-12.6, -10.48, -12.38, -11.99, -12.31]
		Mean	0.74365	-11.953074
		Std	1.075112	0.76137
Prono/Supi	**ROM**	**All trials**	[17.74, 11.45]	[15.64, 11.45, 8.84, 14.67, 14.38]
		Mean	14.597355	12.996759
		Std	3.146767	2.50351
	MAX	**All trials**	[14.25, 14.42]	[15.75, 10.06, 5.38, 14.87, 16.85]
		Mean	14.335278	12.58384
		Std	0.08414	4.283951
	MIN	**All trials**	[-3.49, 2.97]	[0.12, -1.38, -3.47, 0.2, 2.47]
		Mean	-0.262077	-0.412918
		Std	3.230907	1.960652

Rapport du sujet: 02.06.01
Projet CAP/Early HABIT-ILE
Evaluation biomécanique
RCT1- tâche unilatérale

Duration/displacement kinematic

		J0	J90
dist_AP_CP3	All trials	[0.81, 0.74]	[0.79, 0.86, 0.82, 0.8, 0.83]
	Mean	0.775681	0.822364
	Std	0.03289	0.023345
distance_AP	All trials	[1.46, 1.06]	[1.05, 0.97, 1.14, 1.13, 1.14]
	Mean	1.263516	1.087279
	Std	0.200809	0.067229
distance_gravity	All trials	[134.52, 171.63]	[88.27, 41.79, 44.14, 86.94, 80.35]
	Mean	153.074192	68.300067
	Std	18.555898	20.870184
onset_synchrony	All trials	[-139, -36]	[-3, -14, -6, -46, -1]
	Mean	-87.5	-14.0
	Std	51.5	16.601205
onset_velocity_peak	All trials	[-150, -37]	[-39, -16, -43, -62, 9]
	Mean	-93.5	-30.2
	Std	56.5	24.45731
person_coeff	All trials	[0.9, 0.98]	[0.92, 0.87, 0.91, 0.93, 0.92]
	Mean	0.941688	0.910957
	Std	0.038549	0.022815
coeff_corr	All trials	[0.95, 1.0]	[0.98, 0.96, 0.97, 0.98, 0.96]
	Mean	0.975013	0.969172
	Std	0.020974	0.009738
lag_time	All trials	[-1.0, -1.5]	[-6.5, -3.0, -3.5, -3.5, -3.0]
	Mean	-1.25	-3.9
	Std	0.25	1.319091

Rapport du sujet: 02.06.01
Projet CAP/Early HABIT-ILE
Evaluation biomécanique
RCT1- tâche unilatérale

Coefficient de variation

Paramètres spt/qualité

	J0 - Dom	J90 - Dom
Duration	0.23	0.11
Time to peak	0.16	0.49
Mean_speed	0.12	0.06
Velocity Peak	0.04	0.12
Number of movement unit	0.25	0.14
Transport movement unit	0.15	0.12
RV	0.15	0.10
Jerk	-0.63	-0.59
Log_jerk	-0.09	-0.07
Sparc	-0.00	-0.05
Np0	0.29	0.17
Curvature	0.16	0.02

Rapport du sujet: 02.06.01
Projet CAP/Early HABIT-ILE
Evaluation biomécanique
RCT1- tâche unilatérale

Paramètres de cinématique
Trunk

		J0 - Dom	J90 - Dom
Flex/ext	ROM	0.01	0.38
	MAX	0.17	0.98
	MIN	-0.47	-1.93
Inclinaison	ROM	0.09	0.35
	MAX	-0.13	-2.15
	MIN	-0.09	-0.48
Rotations	ROM	0.03	0.10
	MAX	0.01	0.49
	MIN	-0.03	-0.17

Shoulder

		J0 - Dom	J90 - Dom
Flex/ext	ROM	0.11	0.00
	MAX	0.12	0.08
	MIN	-0.09	-0.29
Add/Abd	ROM	0.09	0.09
	MAX	0.09	0.05
	MIN	0.07	0.56
Rotations	ROM	0.11	0.08
	MAX	0.36	0.84
	MIN	-0.07	-0.14

Rapport du sujet: 02.06.01
Projet CAP/Early HABIT-ILE
Evaluation biomécanique
RCT1- tâche unilatérale

Elbow

		J0 - Dom	J90 - Dom
Flex/ext	ROM	0.12	0.10
	MAX	0.02	0.03
	MIN	0.01	0.03
Add/Abd	ROM	0.10	0.17
	MAX	-0.10	1.20
	MIN	-0.01	-0.28
Rotations	ROM	0.28	0.40
	MAX	0.08	0.08
	MIN	0.03	0.50

Wrist

		J0 - Dom	J90 - Dom
Flex/ext	ROM	0.13	0.20
	MAX	0.09	0.52
	MIN	-1.97	-0.50
Add/Abd	ROM	0.16	0.30
	MAX	0.04	-2.31
	MIN	1.45	-0.06
Prono/Supi	ROM	0.22	0.19
	MAX	0.01	0.34
	MIN	-12.33	-4.75

Rapport du sujet: 02.06.01
Projet CAP/Early HABIT-ILE
Evaluation biomécanique
RCT1- tâche unilatérale

Duration/Displacement kinematic

	J0 - Dom	J90 - Dom
dist_AP_CP3	0.04	0.03
distance_AP	0.16	0.06
distance_gravity	0.12	0.31
onset_synchrony	-0.59	-1.19
onset_velocity_peak	-0.60	-0.81
pearson_coeff	0.04	0.03
coeff_corr	0.02	0.01
lag_time	-0.20	-0.34