Self-Rotations Study Protocol

Subject Code _____ **Configuration** _____

Date _____ **RA (s)** _____

A: Arm up B: Arm front C: Leg

Initial Setup

1.	Plug Windows computer with battery	
2.	Plug-in IMU racks (Access Point, 6 Docking stations, IMUs)	
3.	Plug-in Cosmed device (main unit)	
4.	Open Excel document and open NASA TLX page on Mac computer	
5.	Open Cosmed and Motion Studio on Windows computer	
6.	Setup Camera	
7.	Setup hanging system and beam and jump rope	
8.	Perform Room Calibration for Cosmed	

Welcome subject

9.	Introduction of the experiment	
10.	COUHES form signed	
11.	Pre questionnaire	
12.	Anthropometrics measurements	

Pre-tasks

13.	Explanation of the tasks and scoring systems	
14.	Traiming for the beam task (3 times)	
15.	Test for the beam task Record time and grade	
16.	Traiming for the jump rope (3 minutes)	
17.	Test for the jump rope task Grade	

Sensor placement and training

18.	Placement of the heart rate	
19.	Placement of the IMUs on the body	
20.	Calibration of the COSMED	
21.	Training on the floor for the different tasks	
22.	**Training on the hanging systems for the different tasks**	
23.	Baseline measurement for COSMED device	
24.	Placement of the IMU	

Test: Task 1

25.	Clockwise rotation 1 Record time	
26.	Counterlockwise rotation 1 Record time	
27.	Clockwise rotation 2 Record time	
28.	Clockwise rotation 3 Record time	
29.	Counterlockwise rotation 2 Record time	
30.	5 minutes break	
31.	Counterlockwise rotation 3 Record time	
32.	Counterlockwise rotation 4 Record time	
33.	Clockwise rotation 4 Record time	
34.	Counterlockwise rotation 5 Record time	
35.	Clockwise rotation 5 Record time	
36.	Break and NASA TLX	

Test: Task 2

37.	Clockwise rotation 1 Record time	
38.	Counterlockwise rotation 1 Record time	
39.	Clockwise rotation 2 Record time	
40.	Clockwise rotation 3 Record time	

41.	Counterlockwise rotation 2 Record time	
42.	5 minutes break	
43.	Counterlockwise rotation 3 Record time	
44.	Counterlockwise rotation 4 Record time	
45.	Clockwise rotation 4 Record time	
46.	Counterlockwise rotation 5 Record time	
47.	Clockwise rotation 5 Record time	
48.	Break and NASA TLX	

Test: Task 3

1.	Clockwise rotation 1 Record time	
2.	Counterlockwise rotation 1 Record time	
3.	Clockwise rotation 2 Record time	
4.	Clockwise rotation 3 Record time	
5.	Counterlockwise rotation 2 Record time	
6.	5 minutes break	
7.	Counterlockwise rotation 3 Record time	
8.	Counterlockwise rotation 4 Record time	
9.	Clockwise rotation 4 Record time	
10.	Counterlockwise rotation 5 Record time	
11.	Clockwise rotation 5 Record time	
12.	Break and NASA TLX	

End of Experiment

1.	Detach subject and remove sensors	
2.	Thank subject and give diploma	

Cleaning

3.	Remove IMU on the floor	
4.	Save Video file	
5.	Export cosmed files and IMu files	
6.	Synchronize github or dropbox	
7.	Reset Gym as it was	
8.	Clean mask	
9.	Charge batteries	