ar First Author	Channels	Device	Participants		Р	Mobility	Task	Subarea	Area
06 Chez MG	16	DigiTrace	889	Autism	3	Free move	24-hour ambulatory	Autism	Clinical Conditions
15 Malcolm BR 16 Grønli J	72 6	ActiveTwo Titanium	36 16	Older Healthy	2	Walk on a treadmill Sleep	Visual Go/No-Go Reading book vs iPad	Ageing, Cognitive control Sleep	Clinical Conditions Clinical Conditions
16 Grønli J 16 Lucev BP	3	Sleep Profiler	16 29	Healthy	0	Sieep	Sleep	Sleep Sleep	Clinical Conditions
6 López-Larraz E	64	g.Tec	7	Spinal Cord Injury	2	Walk with exoskeleton	Exoskeleton control	Gait, Spinal Cord Injury	Clinical Conditions
7 Gu Y	4	Schwarzer EEG Amplifier	24	Epilepsy	0	Sleep	Sleep	Epilepsy, Sleep	Clinical Conditions
7 Levendowski DJ	3	Sleep Profiler	63	Healthy	0	Sleep	Sleep biomarkers	Sleep	Clinical Conditions
17 Neale C	14	EPOC	95	Older	3	Free walk outdoors	Different scenarios. Emotions	Ageing, Emotions	Clinical Conditions
18 Debellemaniere E	6	Activave	24	Healthy	0	Sleep	Auditory stimulation during sleep	Sleep	Clinical Conditions
18 Simons S	16	Oxford Instr. Profile Study Room 2.3.411	22	Dementia	0	Sit	Rest with eyes closed	Dementia	Clinical Conditions
8 Calabrò RS	21	Brain Quick SystemPLUS	40	Stroke	2	Walk with exoskeleton	Exoskeleton gait training	Gait. Stroke	Clinical Conditions
19 Shustak S	4	Homemade	9	Healthy	0	Sleep	Napping	Sleep	Clinical Conditions
19 Dres M	2	Alice PDx	44	Mechanically ventils	0	Sleep	Sleep	Sleep	Clinical Conditions
19 Mikkelsen KB	6,20	SOMNO, cEEGrid + Smarting	15	Healthy	0	Sleep	Sleep	Sleep	Clinical Conditions
19 Jebelli H	14	EPOC	7	Healthy	1	Sit	Stress recognition in real time	Stress	Clinical Conditions
19 Ahn JW	2	Homemade	14	Healthy	1	Sit	Stress test, Design new system	Stress, Design	Clinical Conditions
19 Ding X	5	Muse	348	Depression	1	Sit	Visual affective and neutral stimuli	Depression, Emotions	Clinical Conditions
20 Vandecasteele K	4	ear-EEG	54	Epilepsy	0	Sit	Rest	Epilepsy	Clinical Conditions
20 Thapa N	19	Quick-20	68	Dementia	0	Sit	Rest with eyes closed, Cognitive, VR training	Dementia	Clinical Conditions
20 Amal PJ	6	Siesta	25	Healthy	0	Sleep	Sleep	Sleep	Clinical Conditions
20 Nakamura T	8	SOMNO, ear-EEG	22	Healthy	0	Sleep	Sleep	Sleep	Clinical Conditions
20 Martins IP	1	BrainStation	22	Migraine	1	Sit	Attention, pre-symptom prediction at home	Attention, Migraine	Clinical Conditions
20 Cicalese PA	32	BrainAmp	29	Dementia	1	Sit	Digit encoding-retrieval, memory	Dementia, Memory	Clinical Conditions
21 Clarke S	32	Siesta	103	Epilepsy	0	Sleep	Sleep	Epilepsy	Clinical Conditions
9 Holm A	3	SynAmps	20	Healthy	1	Sit	Cognitive tasks, mental fatigue	Attention	Cognitive Monitoring
10 Gramann K	248	ActiveTwo	12	Healthy	4	Stand, walk, run on a treadmill	Natural Cognition	Attention	Cognitive Monitoring
12 Liao LD	14	Homemade	8	Healthy	1	Sit	Game based on focus level	Games, Attention	Cognitive Monitoring
12 Debener S	14	EPOC	16	Healthy	3	Sit indoors. Free walk outdoors	Auditory oddball	Attention	Cognitive Monitoring
13 Liu NH	1	Brainwave	24	Healthy	0	Sit	Attention	Attention	Cognitive Monitoring
14 Lin CT	4	Homemade	15	Healthy	1	Sit	Sustained-attention driving task with VR	Attention	Cognitive Monitoring
14 De Sanctis P	72	ActiveTwo	18	Healthy	2	Sit. Slow. Fast Walk on treadmill	Go/NoGo response-inhibition	Cognitive control	Cognitive Monitoring
15 Aspinall P	14	EPOC	16	Healthy	3	Free walk	Mental states at different urban places	Emotions	Cognitive Monitoring
16 Hashemi A	4	Muse	6029	Healthy	1	Sit	Meditation with Neurleedback	Meditation	Cognitive Monitoring
16 Mirkovic B	20.24	cEEGrid + Smarting	20	Healthy	1	Sit	Speaker detection	Audition	Cognitive Monitoring
16 Beurskens R	64	ANT-neuro	12	Healthy	2	Constrained Walk indoors	Cognitive-motor interference, Go/NoGo task	Cognitive control	Cognitive Monitoring
16 Bradford JC	264	ActiveTwo	20	Healthy	2	Walk on a treadmill	Motor control, different slopes	Gait	Cognitive Monitoring
16 Zink R	24	Smarting	15	Healthy	3	Cycling static and free outdoor	Auditory oddball, Cycling	Attention	Cognitive Monitoring
17 Leminen MM	4	Enobio Enobio	15	Healthy	0	Sleep	Memory consolidation, Sleep, Auditory stimulation	Sleep, Memory	Cognitive Monitoring
7 Morales JM	1	Neurosky	17	Healthy	1	Sit	Driving simulation	Attention	Cognitive Monitoring
7 So WKY	1	Neurosky	20	Healthy	1	Sit	Mental workload, Cognitive and motor tasks	Mental workload	Cognitive Monitoring
7 Zhang X	8	Homemade	10	Healthy	1	Sit	Vigilance detection, Train driver	Attention	Cognitive Monitoring
7 Poulsen AT	14	EPOC	42	Healthy	1	Sit	Watch video in classroom, Attention, Hyperscanning	Education	Cognitive Monitoring
7 Banaei M	128	BrainAmp + MOVE	17	Healthy	2	Constrained Walk indoors	Emotions in interior architectural forms with VR	Emotions	Cognitive Monitoring
7 Al-Barrak L	1	Neurosky	40	Healthy	3	Free walk	Mental states at different urban places. Meditation	Emotions	Cognitive Monitoring
7 Dikker S	14	FPOC	12	Healthy	3	Free move	School classroom activities. Hyperscanning	Education, Attention	Cognitive Monitoring
8 Katsigiannis S	14	EPOC	23	Healthy	1	Sit	Emotions with audio-visual stimuli	Emotions	Cognitive Monitoring
8 Marin-Morales J	9	B-Alert X10	60	Healthy	2	Still. Free exploration of museum	Emotions with pictures, VR	Emotions	Cognitive Monitoring
9 Gonzalez Viejo C	1	Neurosky	30	Healthy	1	Sit	Beer consumption	Marketing	Cognitive Monitoring
9 Golnar-Nik P	32	EEG8	16	Healthy	1	Sit	Decision-making, consumer preferences	Marketing	Cognitive Monitoring
9 Athavipach C	1	Homemade	12	Healthy	- 1	Sit	Emotions with pictures and sounds, in-ear-EEG	Emotions	Cognitive Monitoring
9 Ziegler DA	64	ActiveTwo	59	Healthy	1	Sit	Meditation, Attention, Memory	Meditation	Cognitive Monitoring
9 Dehais F	6	Enobio	22	Healthy	1	Sit	Mental Workload in nilots	Mental workload	Cognitive Monitoring
9 Blanco JA	14	EPOC	18	Healthy	1	Sit	Stroop color-word interference to elicit stress	Stress	Cognitive Monitoring
9 Diebbara Z	64	eego sports	20	Healthy	2	Constrained Walk	Motor planning, Go/NoGo, architectural affordances	Cognitive control	Cognitive Monitoring
9 Solis-Escalante T	126	WaveGuard	10	Healthy	2	Postural Balance	Postural Balance	Balance	Cognitive Monitoring
9 Ladouce S	32	ANT-neuro	24	Healthy	3	Still. Free Walk	Auditory oddball	Attention	Cognitive Monitoring
9 Reiser JE	30	actiCAP + LiveAmp	20	Healthy	3	Stand, Free Walk, Obstacles outdoor	Auditory oddball, Gait	Attention	Cognitive Monitoring
19 Piñevro Salvidegoli		Smarting	25	Healthy	3	Walk on a treadmill. Free walk outdoors	Memory of words at differnt locations, smartphone	Memory	Cognitive Monitoring
9 Bevilacqua D	14	EPOC	12	Healthy	3	Free move	School class activities. Hyperscanning	Education	Cognitive Monitoring
9 di Fronso S	64	WaveGuard	17	Healthy	3	Constrained cycling	Physical Effort, endurance cycling	Cycling	Cognitive Monitoring
19 Nordin AD	128	ActiveTwo	9	Healthy	4	Walk, Run, on a treadmill with obstacles	Gait with obstacles	Gait	Cognitive Monitoring
9 Scanlon JEM	15	actiCAP + Vamp	12	Healthy	4	Cycling indoors/outdoors	Auditory oddball	Attention	Cognitive Monitoring
0 Narayanan AM	64	ActiveTwo	16	Healthy	1	Sit	Auditory attention, mini-EEG	Attention	Cognitive Monitoring
20 Raheel A	4	Muse	21	Healthy	1	Sit	Emotion recognition in response to audio and video	Emotions	Cognitive Monitoring
20 Zhang D	14	EPOC	9	Healthy	1	Sit	Intention recognition	Intention recognition	Cognitive Monitoring
0 Packheiser J	32	LiveAmp	51	Healthy	- 1	Sit	Motor of arms and feet to evaluate lateralization	Motor lateralization	Cognitive Monitoring
0 Nordin AD	128	ActiveTwo	9	Healthy	2	Walk on a treadmill at different speeds	Gait speed	Gait	Cognitive Monitoring
0 Bigliassi M	4	Muse	24	Healthy	3	Free walk	Audio-guided mindfulness	Meditation	Cognitive Monitoring
0 Lin W	14	EPOC	40	Healthy	3	Sit. Free Walk	Cognitive, emotional changes by urban spaces	Emotions	Cognitive Monitoring
0 Topalovic U	64		7	Epilepsy	3	Free walk	Mobile deep brain (iEEG) and stimulation (Mo-DBRS	Epilepsy	Cognitive Monitoring
	14	eego sports							
0 Haar S 1 Mustile M	14 32	EPOC ANT-neuro	30 32	Healthy Healthy	3	Free move Walk with obstacles	Motor learning, billiard Real-world obstacle avoidance. Motor plan	Motor learning Gait	Cognitive Monitoring Cognitive Monitoring
1 Mustile M 1 Hölle D	32 20	cEEGrid + Smarting	12	Healthy	3	Free move working in the office	Auditory oddball with smartphone	Attention	Cognitive Monitoring Cognitive Monitoring
1 Hölle D 0 Chin-Tena Lin	20 3	cEEGrid + Smarting Homemade	12 15	Healthy Healthy	3	Free move working in the office Sit	Auditory oddball with smartphone Drowsiness	Attention Attention	Cognitive Monitoring Control and Communica
U Chin-leng Lin 4 De Vos M	14	Modified EPOC	15 20	Healthy	3	Free walk outdoors	Auditory oddball P300	Attention	Control and Communica Control and Communica
4 Devosm 5 MaJ	14	a.USBamp	13	Healthy	1	Free walk outdoors Sit	Visual oddball, classify eve movements, robot control	Attention Robot control	Control and Communical Control and Communical
5 MaJ 6 LuuTP	8 64	g.USBamp actiCAP + MOVE	13	Healthy Healthy	1 2	Sit Walk on a treadmill	Visual oddball, classify eye movements, robot contro Avatar control. VR	Robot control Robot control	Control and Communica Control and Communica
F Luu IP Kwak NS	8	MOVE	7	Healthy	2	Stand Walk with exoskeleton	Exoskeleton control, SSVEP, Gait	Exoskeleton, Gait	Control and Communica Control and Communica
	64	actiCAP + SD MRI Micromed	11	Healthy	2	Stand, Walk with exoskeleton Walk on a treadmill	Motor control of leg muscles	Exoskeleton, Galt	Control and Communica Control and Communica
7 Artoni F	10	actiCAP + SD MRI Micromed Neuracle	11	Healthy	1	Walk on a treadmill Sit	Control of robotic arm with gaze, SSVEP	Robot control	Control and Communica Control and Communica
		Neuracle Homemade	12 6	Healthy Healthy	1	Sit. motor activity	Control of robotic arm with gaze, SSVEP Robot control	Robot control Robot control	Control and Communica Control and Communica
8 Chen X	40			Healthy	1	Sit, motor activity	Robot control Robot control, SSVEP	Robot control	Control and Communica Control and Communica
8 Chen X 9 Zhang J	40	a 1100		Healthy Healthy	1	Sit	Robot control, SSVEP Robot control, SSVEP	Robot control Robot control	Control and Communica Control and Communica
8 Chen X 9 Zhang J 0 Si-Mohammed H	6	g.USBamp	15				NODOL CORROL, SSVEP	RODUL CONTROL	Control and Communica
8 Chen X 9 Zhang J 0 Si-Mohammed H 0 Shao L	6 32	Brain Products	7		2		Gait decoding	Gelf	Control and Commission
8 Chen X 9 Zhang J 0 Si-Mohammed H 0 Shao L 0 Tortora S	6	Brain Products actiCAP + SD MRI Micromed	7 11	Healthy	2	Walk on a treadmill	Gait decoding	Gait	
8 Chen X 9 Zhang J 0 Si-Mohammed H 0 Shao L 0 Tortora S 2 Chi YM	6 32 64 1	Brain Products actiCAP + SD MRI Micromed Homemade	7 11 10	Healthy Healthy	1	Sit	Compare electrode performance in SSVEP	Comparison	Methodological Approac
B Chen X 9 Zhang J 0 Si-Mohammed H 0 Shao L 1 Tortora S 2 Chi YM 3 Badcock NA	6 32 64 1	Brain Products actiCAP + SD MRI Micromed Homemade EPOC	7 11 10 21	Healthy Healthy Healthy	1	Sit Sit	Compare electrode performance in SSVEP Auditory oddball, Validation of gaming system	Comparison Validation	Methodological Approac Methodological Approac
8 Chen X 9 Zhang J 0 Si-Mohammed H 0 Shao L 0 Tortora S 2 Chi YM 3 Badcock NA 4 De Vos M	6 32 64 1 14	Brain Products actiCAP + SD MRI Micromed Homemade EPOC Modified EPOC	7 11 10 21 13	Healthy Healthy Healthy Healthy	2 1 1 0	Sit Sit	Compare electrode performance in SSVEP Auditory oddball, Validation of gaming system Visual P300 spelling task	Comparison Validation Comparison	Methodological Approac Methodological Approac Methodological Approac
8 Chen X 9 Zhang J 0 Si-Mohammed H 0 Shao L 0 Tortora S 2 Chi YM 3 Badcock NA 4 De Vos M 4 David Hairston W	6 32 64 1 14 14 64,9,14,9	Brain Products actiCAP + SD MRI Micromed Homemade EPOC Modified EPOC ActiveTwo, B-Alert X10, EPOC, HMS	7 11 10 21 13 16	Healthy Healthy Healthy Healthy Healthy	1 1 0 1	Sit Sit Sit Sit	Compare electrode performance in SSVEP Auditory oddball, Validation of gaming system Visual P300 spelling task Cognitive	Comparison Validation Comparison Comparison	Methodological Approac Methodological Approac Methodological Approac Methodological Approac
B Chen X 9 Zhang J 0 Si-Mohammed H 0 Shao L 0 Tortora S 2 Chi YM 3 Baddock NA 4 De Vos M 4 David Hairston W 5 Bleichner MG	6 32 64 1 14 14 64,9,14,9	Brain Products actiCAP + StD MRI Micromed Homemade EPOC Modified EPOC ActiveTwo, B-Aert X10, EPOC, HMS EasyCap + BrainAmp	7 11 10 21 13 16	Healthy Healthy Healthy Healthy Healthy Healthy Healthy	1 1 0 1	Sit Sit Sit Sit	Compare electrode performance in SSVEP Auditory oddball, Validation of gaming system Visual P300 spelling task Cognitive Visual P300 spelling task	Comparison Validation Comparison Comparison Design	Methodological Approac Methodological Approac Methodological Approac Methodological Approac Methodological Approac
8 Chen X 9 Zhang J 9 Zhang J Si-Mohammed H 0 Shao L 0 Tortora S 2 Chi YM 3 Badcock NA 4 De Vos M 4 David Hairston W 5 Bleichner MG 6 Mikkelsen KB	6 32 64 1 14 14 64,9,14,9 13	Brain Products actiCAP + SD MRI Micromed Homemade EPOC Modified EPOC ActiveTwo, B-Alert X10, EPOC, HMS EasyCap + BrainArmp earEEG + g-tac USBamp	7 11 10 21 13 16 12	Healthy Healthy Healthy Healthy Healthy Healthy Healthy	1 1 0 1	Sit Sit Sit Sit Sit Sit	Compare electrode performance in SSVEP Auditory oddball, Validation of garning system Visual P300 spelling task Cognitive Visual P300 spelling task Cognitive, characterize ear EEG	Comparison Validation Comparison Comparison Design Validation	Methodological Approac Methodological Approac Methodological Approac Methodological Approac Methodological Approac Methodological Approac
8 Chen X 9 Zhang J 9 Si-Mohammed H 0 Shao L 1 Tortora S 2 Chi YM 3 Badcock NA 4 De Vos M 4 David Hairston W 5 Bleichner MG 5 Milkkeben KB 5 Debener S	6 32 64 1 14 14 64,9,14,9 13 12 20	Brain Products actiCAP + SD MIN Micromed Homemade EPOC Modified EPOC ActiveTwo, B-Ment X10, EPOC, HMS ErasyCap + BrainAmp earEEG + giac USBamp cEEGrid + Smarting	7 11 10 21 13 16 12 13	Healthy Healthy Healthy Healthy Healthy Healthy Healthy Healthy Healthy	1 1 0 1 0 1	Sit Sit Sit Sit Sit Sit	Compare electrode performance in SSVEP Auditory oddball, Validation of gaming system Visual P300 spelling task Cognitive Visual P300 spelling task Cognitive, Cognitive, Characterize ear EEG Rest and Auditory oddball with smartphone	Comparison Validation Comparison Comparison Design Validation Validation	Methodological Approac Methodological Approac Methodological Approac Methodological Approac Methodological Approac Methodological Approac Methodological Approac
8 Chen X 9 Zhang J 0 Si-Mohammed H 0 Shao L 0 Tortora S 2 Chi 'YM 3 Badcock NA 4 De Vos M 4 David Hairston W 5 Bielchner MG 5 Mikkelsen KB 5 Mullen TR	6 32 64 1 14 14 64,9,14,9 13 12 20 64	Brain Products actiCAP + SD MR1 Micromed Homemade EPOC ActiveTwo, B-Ahet X10, EPOC, HMS Easylop - BrainAmp earEEG + g tec USBamp dEEGdid - Smarting Cogninions Hb-72 by	7 11 10 21 13 16 12 13 10 9	Healthy	1 1 0 1 0 1 1	SIT SIT SIT SIT SIT SIT SIT	Compare electrode performance in SSVEP Auditory oddball, Validation of gaming system Visual P300 spelling task Cognitive Visual P300 spelling task Cognitive, characterize ear EEG Rest and Auditory oddball with smartphone System evaluation, Real-Time	Comparison Validation Comparison Comparison Design Validation Validation Validation	Methodological Approac Methodological Approac Methodological Approac Methodological Approac Methodological Approac Methodological Approac Methodological Approac Methodological Approac
8 Chen X 9 Zhang J 10 Si-Mohammed H 10 Shao L 10 Tortora S 2 Chi YM 3 Badcock NA 4 De Vos M 4 David Hairston W 5 Bielchner MG 6 Bielchner MG 6 Debener S 5 Mullen TR 5 Snyder KL	6 32 64 1 14 14 64,9,14,9 13 12 20 64 256	Brain Products acidical + SI Mitti Micromed Homemade EPCC Modified EPCC ActiveTwo, B-Alent X10, EPOC, HMS EBIOCAP eBEEG + giber USBamp eBEEG + giber USBamp CEEGrid + Smarting Cognonies HD-72 day ActiveTwo	7 11 10 21 13 16 12 13 10 9	Healthy	1 1 0 1 0 1 1 1 1 2	Sit Sit Sit Sit Sit Sit Sit Val Walk on a treadmill	Compare electrode performance in SSVEP Auditory octifatul, initiation of garning system Visual P300 spelling task Cognitive Visual P300 spelling task Cognitive, characterize ear EEG Rest and Auditory oddball with smartphone System evaluation, Real-Time Methods for artifacts	Comparison Validation Comparison Comparison Design Validation Validation Validation Aritfacts	Methodological Approac Methodological Approac Methodological Approac Methodological Approac Methodological Approac Methodological Approac Methodological Approac Methodological Approac Methodological Approac
Chen X Zhang J Zhang J Shakohammed H Shao L Tortora S Chi YM Badcock NA Dev Oss M David Hairston W Mikkelsen KB Mikkelsen KB Mikhelsen KB	6 32 64 1 14 14 64,9,14,9 13 12 20 64 256	Brain Froducts actiCAP + SD Mitti Micromed HOmemade EPOC Modified EPOC Modified EPOC Modified EPOC Modified EPOC ElasyCap + BrainAmp eatEEG + gibe tuBSamp dEEGrid + Smarting Cognotics HD-72 dy ActiveTwo Neurosky	7 11 10 21 13 16 12 13 10 9	Healthy	1 1 0 1 0 1 1 1 1 2	Sit	Compare electrode performance in SSVEP Auditory oddralt, Validation of gaming system Visual P300 spelling task Cognitive Visual P300 spelling task Cognitive, characterize ear EEG Rest and Auditory oddball with samartphone System evaluation, Real-Time Methods for artifacts Rest eyes open-closeet, Auditory oddbalt, Visual n-ba	Comparison Validation Comparison Comparison Design Validation Validation Validation Validation Validation	Methodological Approac Methodological Approac Methodological Approac Methodological Approac Methodological Approac Methodological Approac Methodological Approac Methodological Approac Methodological Approac Methodological Approac
8 Chen X 9 Zhang J 9 Si-Mohammed H 0 Shao L 0 Toftors S 2 Chi YM 3 Badcock NA 4 David Hairston W Bleichner MG Milkeben KB 5 Debener S 5 Mullen TR 5 Toyder KL 6 Rogers JM 6 Oliveira AS	6 32 64 1 14 14 64,9,14,9 13 12 20 64 256 1	Brain Products actiCAP & SUMEI Micromed Homenade EPCC Modified EPOC ActiveTwo, B-Alent X10, EPOC, HMS EBISCAP - BrainAmp eatEEG + g bet UsBamp cEEGrid + Smarting Cognonies HD-72 dy ActiveTwo Neurosky Cogninoies DryWet	7 11 10 21 13 16 12 13 10 9 10 59	Healthy	1 1 0 1 0 1 1 1 1 2	Sit	Compare electrode performance in SSVEP Auditory oddstul, visidation of gaming system Visual P300 spelling task Cognitive Visual P300 spelling task Cognitive, characterize ear EEG Rest and Auditory oddball with smartphone System evaluation, Real-Time Methods for artifact order in the Methods for artifact Rest eyes opericlosed, Auditory oddball, Visual n-ba Auditory oddball, Visual n-ba Auditory oddball	Comparison Validation Comparison Design Validation Validation Validation Validation Validation Artificts Validation Comparison	Methodological Approac Methodological Approac
8 Chen X 9 Zhang J 0 Si-Mohammed H 0 Shao L 0 Tofrora S 2 Chi YM 3 Badocok NA 4 De Voes M 5 Bleichner MG 5 Mikkelsen KB 5 Mikkelsen KB 5 Miklen TR 6 Rogers JM 6 Oliveira AS 6 Nathan K	6 32 64 1 14 14 64,9,14,9 13 12 20 64 256 1 64	Brain Products asiCAP + SD Mitti Micromed HOME - SD Mitti Micromed EPCC Modified EPCC Modified EPCC Modified EPCC Modified EPCC HMS - BrainAmp eaEEG + g face USBamp cEEGrid + Smarting Cognotics HD-72 dy ActiveTwo Neurosisy Cognotics DryWet asiCAP + MOVE	7 11 10 21 13 16 12 13 10 9 10 59 9	Healthy	1 1 0 1 0 1 1 1 1 2 1 2	Sit	Compare electrode performance in SSVEP Auditory oddist. I indiation of gaming system Visual P300 spelling task Cognitive Visual P300 spelling task Cognitive. Characterize ar EEG Rest and Auditory oddball with smartphone System evaluation. Real-Time Menhost for artifacts Rest eyes open-foliosed. Auditory oddball, Visual n-ba Auditory oddball Evaluatie motion artifacts	Comparison Validation Comparison Comparison Design Validation Validation Validation Validation Comparison Artifacts Validation Comparison Artifacts	Methodological Approac Methodological Approac
8 Chen X 9 Zhang J 10 SI-Mohammed H 10 Tenfora S 2 Chi YM 10 Badcock NA 4 De Vois M 4 De Vois M 5 Bildechner MG 5 Milkelsen KB 5 Debener S 5 Mullen TR 6 Rogers JM 6 Rogers JM 6 Nathan K	6 32 64 1 1 14 14 64 9,14,9 2 55 6 1 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6	Brain Products actiCAP + SD Mitt Micromed Homemade EPOC Modified EPOC ActiveTwo, B-Akert X10, EPOC, HMS EatyGoy - BrainAmp eatEEG + g lact USBamp cEEGId+ Smarting Cognonics HD-72 dy ActiveTwo Neurosky Cognisions DryWet actiCAP + MOVE actiCAP + MOVE	7 11 10 21 13 16 12 13 10 9 10 59 9	Healthy	1 1 0 1 0 1 1 1 1 2	Sit	Compare electrode performance in SSVEP Auditory oddatil. Visidation of gaming system Visida P200 spelling task Cognitive. Visida P200 spelling task Cognitive, characterize ear EEG Rest and Auditory dodatil with smartphone System evaluation, Real-Time Methods for artifact of the Visida P200 spelling task Rest eyes openiclosed, Auditory oddball. Visidal n-ba Auditory oddball Evaluate motion artifacts Methods for artifact removal	Comparison Validation Comparison Design Validation Validation Validation Validation Validation Artifacts Validation Artifacts Artifacts Artifacts Artifacts	Methodological Approac Methodological Approac
8 Chen X 9 Zhang J 10 Si-Mohammed H 10 Shan L 10 Toftora S 1 Chi YM 3 Badcock NA 4 De Voes M 5 Bilechtner MG 5 Milkskeisen KB 5 Milkskeisen KB 5 Mullen TR 5 Srijder KL 6 Riccardan A 6 Nathan K 6 Kilcardan A Melnik A Melnik A	6 32 64 1 14 14 64,9,14,9 13 12 20 64 256 1 64	Brain Products asiCAP + SD Mitti Micromed HOME - SD Mitti Micromed - SD Mitti Micromed GEGrid - Smarting Cognitions HD-72 dy Active Two Neurosity Cognitionics DryWet asiCAP + MOVE	7 11 10 21 13 16 12 13 10 9 10 59 9	Healthy	1 1 0 1 0 1 1 1 1 2 1 2	Sit	Compare electrode performance in SSVEP Auditory oddist. I indiation of gaming system Visual P300 spelling task Cognitive Visual P300 spelling task Cognitive. Characterize ar EEG Rest and Auditory oddball with smartphone System evaluation. Real-Time Menhost for artifacts Rest eyes open-foliosed. Auditory oddball, Visual n-ba Auditory oddball Evaluatie motion artifacts	Comparison Validation Comparison Comparison Design Validation Validation Validation Validation Comparison Artifacts Validation Comparison Artifacts	Methodological Approac Methodological Approac
8 Chen X 9 Zhang J 10 Si-Mohammed H 10 Shan L 10 Toftora S 10 Toftora S 2 Chi YM 3 Badcock NA 4 De Vos M 5 Bilectner MG 5 Mikelseln KB 5 Debener S 5 Mullen TR 5 Millen TR 6 Rogens JM 6 Rogens JM 6 Oliveira AS 6 Kilicanslan A Metrisk A	6 32 64 1 1 14 14 64 9,14,9 2 55 6 1 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6	Brain Products actiCAP + SD Mitt Micromed Homemade EPOC Modified EPOC ActiveTwo, B-Akert X10, EPOC, HMS EatyGoy - BrainAmp eatEEG + g lact USBamp cEEGId+ Smarting Cognonics HD-72 dy ActiveTwo Neurosky Cognisions DryWet actiCAP + MOVE actiCAP + MOVE	7 11 10 21 13 16 12 13 10 9 10 59 9	Healthy	1 1 0 1 0 1 1 1 1 2 1 2	Sit	Compare electrode performance in SSVEP Auditory oddatil. Visidation of gaming system Visual P300 spelling task Cognitive. Organitive services and services of the Cognitive Cognitive Cognitive Characterize ear EEG Rest and Auditory oddatal with smartphone System evaluation, Real-Time Methods for artifact oddatal with smartphone System evaluation, Real-Time Methods for artifact of the Cognitive Cognitive Cognitive Cognitive Cognitive Cognitive Cognitive Cognitive, EEG systems comparison Visual oddatal, reward-learning	Comparison Validation Comparison Design Validation Validation Validation Validation Validation Artifacts Validation Artifacts Artifacts Artifacts Artifacts	Methodological Approac Methodological Approac
8 Chen X 9 Zhang J 10 Si-Alchammed H 0 Shao L 10 Tofora S 2 Chi YM 1 Badcock NA 4 De Vois M 4 De Vois M 5 Baldcock NA 5 Badcock NA 6 De Vois M 1 David Hariston W 5 Bleichner MG 5 Mikkelsen KB 6 Debener S 5 Debener S 6 More	6 32 64 1 1 14 14 14 64,9,14,9 13 12 20 64 256 1 64 64 127,64,32,14 127,14 127,14 127,14 127,14 127,14 127,14 127,14 127,14 127,14 127,14 127,14 127,14 127,14 12	Brain Products aciCAP + SD Mitti Micromed Homemade EPCC Modified EPCC Modified EPCC Modified EPCC Modified EPCC EasyCap + BrainAmp eaEEG + g fac tuStamp cEECard + Smarting Cognitions HD-72 dy ActiveTwo Neurosity Cognition ED-72 dy activeTwo Neurosity Cognition ED-70 Wet aciCAP + MOVE aciCAP + MOVE assiabTM, aciCAP g Nautilus, EPCC Muse Homemade	7 11 10 21 13 16 12 13 10 9 10 59 9 4 12 4	Healthy	1 1 0 1 0 1 1 1 1 2 2 2 2	Sit	Compare electrode performance in SSVEP Auditory oddistul, initiation of gaming system Visual P300 spelling task Cognitive Visual P300 spelling task Cognitive, characterize ear EEG Rest and Auditory oddball with smartphone System evaluation, Real-Time Methods for antifact services operiodised, Auditory oddball, Visual n-ba Auditory oddball Evaluate motion antifacts Methods for antifact removal Cognitive, EEG systems comparison	Comparison Validation Comparison Comparison Design Validation Validation Validation Validation Artifacts Validation Artifacts Artifacts Artifacts Artifacts Artifacts Artifacts	Methodological Approace
8 Chen X 9 Zhang J 10 SiAbo L 10 Shou L 10 Toftors S Chi YM Badocok NA 4 De Vea M 6 Blechmer RS 5 Bildchmer RS 5 Debener S 6 Olverner S 6 Olverner AS 8 Kilcenstan A 7 Krigpson OE 8 La TG	6 32 64 1 1 14 14 64.9.14,9 13 12 20 64 256 1 64 64 127,64.32,14 4 1 1	Brain Products actiCAP + SD Mitt Micromed Homenade EPCC Modified EPCC ActiveTwo, B-Akert X10, EPOC, HMS EavScape - BrainAmp eatEEG + g lace USBamp cEEGrid - Smarting Cognionics HD-72 day ActiveTwo Neurosky Cognionics DryWet actiCAP + MOVE actiCAP + MOVE actiCAP + MOVE actiCAP + MOVE BrainAmp Muse Homenade EPCC Trichion Leidelich BRR a	7 11 10 21 13 16 12 13 10 59 9 4 12 4 60 1	Healthy	1 1 0 1 0 1 1 1 1 2 1 2 2 2 2 1 1	Sit	Compare electrode performance in SSVEP Auditory oddstul, visitation of gaming system Visual P300 spelling task Cognitive, Characterize ear EEG Rest and Auditory oddstul with smartphone System evaluation, Real-Time Methods for artifacts Rest eyes openiclosed, Auditory oddstal, Visual n-ba Auditory oddstal Evaluate motion artifacts Rest eyes openiclosed, Auditory oddstal Evaluate motion artifacts Methods for artifact removal Cognitive, EEG systems comparison Visual oddstul, reward-learning	Comparison Validation Comparison Comparison Design Validation Validation Validation Validation Artificats Validation Comparison Artificats Artificats Artificats Artificats Comparison Validation Design	Methodological Approace
8 Chen X 9 Zhang J 9 Zhang J 9 Shalo L 9 Tortors S 10 Tor	6 32 64 1 14 64,14,9 13 12 20 64 256 1 1 64 64 64 64 127,64,32,14 4 1 14,32,4,8,16,16	Brain Products actiCAP + SD MRTI Micromed Homemade EPCC Modified EPCC Mo	7 11 10 21 13 16 12 13 10 9 10 9 10 24 4 60 1	Healthy	1 1 0 1 1 1 1 1 2 1 2 2 2 2 1 1 0 1	Sit	Compare electrode performance in SSVEP Auditory oddatil, viliudation of gaming system Visual P300 spelling task Cognitive Visual P300 spelling task Cognitive. Visual P300 spelling task Cognitive. Analotter are #EG Rest and Auditory oddball with smartphone System evaluation. Real*Time Methods for artifacts Rest eyes oper-bicsed. Auditory oddball. Visual n-ba Auditory oddball Evaluatie motion artifacts Methods for artifact removal Cognitive. EEG systems comparison Visual oddball. reward-learning Rest eyes oper-bicsed. Design efectionics e-Instille Cognitive EEGs sized. Design efectionics e-Instille Cognitive EEGs sized. Design efectionics e-Instille Cognitive EEGs sized.	Comparison Validation Comparison Comparison Design Validation Validation Validation Validation Artifacts Validation Comparison Artifacts Artifacts Artifacts Comparison Validation Comparison Comparison Comparison Validation Comparison Validation Design Comparison	Methodological Appraca
18	6 32 64 1 1 1 4 4 64 8,14,9 1 2 20 64 64 64 127,64,32,14 4 1 1 14,32,4,8,16,16	Brain Products actiCAP + SD Mitt Micromed Homemade EPOC Modified EPOC ActiveTwo, B-Alert X10, EPOC, HMS EasyCap + BrainAmp eaEEG + g lac USBamp cEEGId + Smarting Cognionics HD-72 day ActiveTwo Neurosisy Cognionics Dry/Wet actiCAP + MOVE actiCAP + MOVE asslabTM, actiCAP + MOVE Browness Homemade Homemade EPOC, Trilobic Julyfain, BR8+ g SAHARA, g LADYbrd Homemade	7 11 10 21 13 16 12 13 10 9 10 59 9 4 12 4 60 1 1 24	Healthy	1 1 0 1 0 1 1 1 1 2 2 2 2 1 1 0 1	Sit	Compare electrode performance in SSVEP Auditory oddatil. Visidation of gaming system Visida P200 spelling task Cognitive. Organitive service service service service (Cognitive Characterize ear EEG Rest and Auditory oddatil with smartphone System evaluation, Real-Time Methods for artisch expert service	Comparison Validation Comparison Design Validation Validation Validation Validation Validation Artifacts Validation Artifacts Comparison Artifacts Comparison Validation Design Comparison Design	Methodological Approach
18	6 32 64 1 14 64,9,14,9 13 12 20 64 256 1 1 64 64 64 127,64,32,14 4 1 1 14,32,4,8,16,16	Brain Products actiCAP + SD MRTI Micromed Homemade EPOC Modified EPOC Modified EPOC HMS EasyCap + BrainAmp earEEG + g Ice USBamp cEECerid + Smarting Cognoince HD-72 dy Active Two Neurosky Cognoince DityWet actiCAP + MOVE asalabTM, actiCAP + MOVE asalabTM, actiCAP - MOVE BasilabTM, actiCAP - MOVE BasilabTM, actiCAP - MOVE Active Two Homemade EPOC, Triobite Jellyfish, BRR* g SAMAR, g LAMDYING Homemade Homemade Homemade	7 111 10 21 13 16 12 13 10 9 10 59 9 4 12 4 60 1 24 10 16	Healthy	1 1 0 1 0 1 1 1 2 1 2 2 2 1 1 0 1 1 1 2 1 1 2 1 1 1 1	Sit	Compare electrode performance in SSVEP Auditory oddatil, viliudation of gaming system Visual P300 spelling task Cognitive Visual P300 spelling task Cognitive. Paradictive aer EEG Rest and Auditory oddball with smartphone System evaluation, Real*Time Methods for artifacts Rest eyes oper-bicsed, Auditory oddball. Visual n-ba Auditory oddball Evaluatie motion artifacts Methods for artifacts Methods for artifact removal Visual oddball, reward-learning Rest eyes oper-bicsed. Design electronics e-bodile Cognitive, EEG systems comparisor Visual oddball, reward-learning Rest eyes oper-bicsed. Design electronics e-bodile Cognitive tasks and games. EEG systems comparisor Oper-bicse eyes, arm strain. Design cabon nanotubul Susual. Cognitive, Coyfing, Epleeys, Stroke	Comparison Validation Comparison Comparison Design Validation Validation Validation Validation Artifacts Validation Comparison Artifacts Artifacts Comparison Validation Comparison Validation Comparison Validation Design Comparison Design Validation	Methodological Approach
18	6 32 64 1 1 1 4 4 64 8,14,9 1 20 64 64 64 1 127,64,32,14 4 1 1 14,32,4,8,16,16 2 3 3 3 3	Brain Products actiCAP + SD Mitt Micromed Homemade EPOC Modified EPOC ActiveTwo, B-Alert X10, EPOC, HMS EasyCap + BrainAmp eaEEG + g lac USBamp cEEGId + Smarting Cognionics HD-72 day ActiveTwo Neurosisy Cognionics Dry/Wet actiCAP + MOVE actiCAP + MOVE asslabTM, actiCAP + MOVE Browness Homemade Homemade EPOC, Trilobic Julyfain, BR8+ g SAHARA, g LADYbrd Homemade	7 111 10 21 13 16 12 13 10 9 10 59 4 12 4 60 1 1 24 10 18 30	Healthy	1 1 0 1 0 1 1 1 1 2 2 2 2 1 1 0 1	Sit	Compare electrode performance in SSVEP Auditory oddatil. Visidation of gaming system Visida P200 spelling task Cognitive. Organitive service service service service (Cognitive Characterize ear EEG Rest and Auditory oddatil with smartphone System evaluation, Real-Time Methods for artisch expert service	Comparison Validation Comparison Design Validation Validation Validation Validation Validation Artifacts Validation Artifacts Comparison Artifacts Comparison Validation Design Comparison Design	Methodological Approach Method
8 Chen X 9 Zhang J 10 Shao L 10 Tontora S 10 Tontora S 2 Chi YM 3 Badcock NA 4 David Hairston W 5 Bilschmer RS 5 Mikestein KB 5 Mikestein KB 6 Ropens JM 6 Ropens JM 6 Robert K 6 Robert AS 6 Nathan K 6 Killcanstan A 7 Melnik A 7 Melnik A 8 La TG 8 Radiottz T 8 Kassaba A 9 Kam JWY	6 32 64 1 14 64,9,14,9 13 12 20 64 256 1 1 64 64 64 127,64,32,14 4 1 1 14,32,4,8,16,16	Brain Products actiCAP + SD MRTI Micromed Homemade EPOC Modified EPOC Modified EPOC HMS EasyCap + BrainAmp earEEG + g Ice USBamp cEECerid + Smarting Cognoince HD-72 dy Active Two Neurosky Cognoince DityWet actiCAP + MOVE asalabTM, actiCAP + MOVE asalabTM, actiCAP - MOVE BasilabTM, actiCAP - MOVE BasilabTM, actiCAP - MOVE Active Two Homemade EPOC, Triobite Jellyfish, BRR* g SAMAR, g LAMDYING Homemade Homemade Homemade	7 111 10 21 13 16 12 13 10 9 10 59 9 4 12 4 60 1 24 10 16	Healthy	1 1 0 1 0 1 1 1 2 1 2 2 2 1 1 0 1 1 1 2 1 1 2 1 1 1 1	Sit	Compare electrode performance in SSVEP Auditory oddatil, viliudation of gaming system Visual P300 spelling task Cognitive Visual P300 spelling task Cognitive. Paradictive aer EEG Rest and Auditory oddball with smartphone System evaluation, Real*Time Methods for artifacts Rest eyes oper-bicsed, Auditory oddball. Visual n-ba Auditory oddball Evaluatie motion artifacts Methods for artifacts Methods for artifact removal Visual oddball, reward-learning Rest eyes oper-bicsed. Design electronics e-bodile Cognitive, EEG systems comparisor Visual oddball, reward-learning Rest eyes oper-bicsed. Design electronics e-bodile Cognitive tasks and games. EEG systems comparisor Oper-bicse eyes, arm strain. Design cabon nanotubul Susual. Cognitive, Coyfing, Epleeys, Stroke	Comparison Validation Comparison Comparison Design Validation Validation Validation Validation Artifacts Validation Comparison Artifacts Artifacts Comparison Validation Comparison Validation Comparison Validation Design Comparison Design Validation	Methodological Approach Method
8 Chen X 9 Zhang J 9 Zhang J 10 Si-Mohammed H 10 Shau L 10 Tonton S 10 Tonton	6 32 64 1 1 1 4 4 64 8,14,9 1 20 64 64 64 1 127,64,32,14 4 4 4 1 1 1 4,32,48,16,16 2 3 3 2 2 4 1	Brain Products actiCAP + SD Mitt Micromed Homemade EPOC Modified EPOC ActiveTwo, B-Aler X10, EPOC, HMS EasyCap + BrainAmp earEEG + g lac USBamp eEEGG + Smaring Cognomics HD-72 ay ActiveTwo Neurosisy Cognomics DryWet actiCAP + MOVE actiCAP + MOVE asslasTM, actiCAP + MOVE Browning Homemade Homemade Homemade FT Niesen Smarting Homemade FT Niesen Smarting Homemade	7 111 10 21 13 16 12 13 10 9 9 10 59 9 4 12 24 10 16 30 27 5	Healthy	1 1 0 1 0 1 1 1 1 2 2 2 1 1 0 1 1 2 1 2	Sit	Compare electrode performance in SSVEP Auditory oddatil. Visidation of gaming system Visual P300 spelling task Cognitive. Characterize ear EEG Rest and Auditory oddatil. Visidating of gaming system Visual P300 spelling task Cognitive, characterize ear EEG Rest and Auditory oddatil with smartphone System evaluation, Real-Time Methods for artifact oddatil visidatil n-ba Auditory oddatil Evaluate motion artifacts Methods for artifact removal Cognitive, EEG systems comparison Visual oddatil, reward-learning Rest eyes openiclosed, Design electronics e-tertile Cognitive tasks and games. EEG systems comparison Visual Cognitive, Cryoning, Epilepsy, Stroke Rest and RSVP Comparison of EEG systems Memory of words at differnit locations, smartphone Memory of words at differnit locations, smartphone Memory of words at differnit locations, smartphone	Comparison Validation Comparison Comparison Design Validation Validation Validation Validation Validation Artifacts Validation Artifacts Validation Comparison Artifacts Comparison Validation Design Comparison Design Comparison Design Validation Design Validation Design Validation Design Validation Design Validation Design	Methodological Approach Method
8 Chen X 9 Zhang J 10 Shao L 10 Totorus S 2 Chi YM 3 Badcock NA 4 De Vos M 4 De Vos M 5 Bildenther MS 5 Bibechner MS 5 Debener S 5 Milden TR 6 Ropen JM 6 Oliveira AS 6 Kilcarslan A 7 Krigolson OE 8 Kim JH 8 Kim JH 8 Kim JW 9 Kam JWY 9 Blum S 0 Li TG 0 Li TG 0 Li TG	6 32 64 1 1 14 64,9,14,9 13 12 20 64 256 1 1 64 64 64 127,64,32,14 4 1 14,32,4,8,16,16 2 3 3 3 2 4	Brain Products actiCAP + SD Mittl Micromed Homemade EPCC Modified EPCC M	7 111 10 21 13 16 12 13 10 9 10 59 9 4 12 4 60 1 1 24 60 1 10 16 30 27 5 32	Healthy	1 1 0 1 0 1 1 1 1 2 2 2 2 1 1 0 1 1 2 2 2 2	Sit	Compare electrode performance in SSVEP Auditory oddatil, viliudation of garming system Visual P300 spelling task Cognitive Visual P300 spelling task Cognitive. Visual P300 spelling task Cognitive. Paradictive are EEG Rest and Auditory oddball with smartphone System evaluation. Real*Time Methods for artifacts Rest eyes operviciosed, Auditory oddball. Visual n-ba Auditory oddball Evaluatie motion. Real*Time Auditory oddball Evaluatie motion artifacts Methods for artifact removal Visual oddball, reward-learning Rest eyes operviciosed. Design efectronics e-Indilie Cognitive. EEG systems comparisor Visual oddball, reward-learning Rest eyes operviciosed. Design efectronics e-Indilie Cognitive tasks and games. EEG systems comparisor Copertiolose eyes, arm strain. Design cabon nanotub Visual. Cognitive. Cyring. Epleleys, Stransphone Rest eyes operviciosed. Design printable electrodes Rest yes operviciosed. Design printable electrodes Rest, visual evolety domethils. Comparison of EEG is spetems.	Comparison Validation Comparison Comparison Design Validation Validation Validation Validation Artifacts Validation Comparison Artifacts Artifacts Artifacts Comparison Validation Design Comparison Design Comparison Design Comparison Design Comparison Artifacts Design Comparison Artifacts Design Comparison Artifacts Comparison Artifacts Design Comparison Artifacts Design	Methodological Approach
8 Chen X 9 Zhang J 9 Zhang J 10 Si-Mohammed H 10 Shau L 10 Tonton S 10 Tonton	6 32 64 1 1 1 4 4 64 8,14,9 1 20 64 64 64 1 127,64,32,14 4 4 4 1 1 1 4,32,48,16,16 2 3 3 2 2 4 1	Brain Products actiCAP + SD Mitt Micromed Homemade EPOC Modified EPOC ActiveTwo, B-Aler X10, EPOC, HMS EasyCap + BrainAmp earEEG + g lac USBamp eEEGG + Smaring Cognomics HD-72 ay ActiveTwo Neurosisy Cognomics DryWet actiCAP + MOVE actiCAP + MOVE asslasTM, actiCAP + MOVE Browning Homemade Homemade Homemade FT Niesen Smarting Homemade FT Niesen Smarting Homemade	7 111 10 21 13 16 12 13 10 9 9 10 59 9 4 12 24 10 16 30 27 5	Healthy	1 1 0 1 1 0 1 1 1 2 2 2 1 1 1 0 0 1 1 2 0 0 3 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Sit	Compare electrode performance in SSVEP Auditory oddatil. Visidation of gaming system Visual P300 spelling task Cognitive. Characterize ear EEG Rest and Auditory oddatil. Visidating of gaming system Visual P300 spelling task Cognitive, characterize ear EEG Rest and Auditory oddatil with smartphone System evaluation, Real-Time Methods for artifact oddatil visidatil n-ba Auditory oddatil Evaluate motion artifacts Methods for artifact removal Cognitive, EEG systems comparison Visual oddatil, reward-learning Rest eyes openiclosed, Design electronics e-tertile Cognitive tasks and games. EEG systems comparison Visual Cognitive, Cryoning, Epilepsy, Stroke Rest and RSVP Comparison of EEG systems Memory of words at differnit locations, smartphone Memory of words at differnit locations, smartphone Memory of words at differnit locations, smartphone	Comparison Validation Comparison Comparison Design Validation Validation Validation Validation Validation Artifacts Validation Artifacts Validation Comparison Artifacts Comparison Validation Design Comparison Design Comparison Design Validation Design Validation Design Validation Design Validation Design Validation Design	Control and Communication Methodological Approach