

Supplementary Information

Simultaneous fMRI and tDCS for Enhancing Training of Flight Tasks

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Table S1. Landing rate LMM significance results for all main effects, interactions, and covariates, as well as significant post-hoc comparisons (* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$).

Term	Factor	F-ratio		p-value	Partial η ²
Landing Rate Main Effects (Post-Pre)					
	tDCS	0.9	1/19.1	0.354536	0.045
	Experience	5.08	1/20.8	0.035108*	0.196
	Experience*tDCS	1.952	1/19.5	0.178011	0.091
	Runway	5.739	1/542.4	0.016928*	0.010
	Wind	1.766	1/541.3	0.184404	0.003
	Auditory	5.494	1/536.1	0.019447*	0.010
	Pre-training Performance	186.6	1/501.2	0.000000***	0.271
Landing Rate Post-Hoc Comparisons (Post-Pre)					
	Active stim, experience novice vs advanced	6.012	1/21.1	0.045982*	0.222
Landing Rate Main Effects (Training)					
	tDCS	4.147	1/19.2	0.055735	0.178
	Experience	10.49	1/21.4	0.003854***	0.329
	Experience*tDCS	4.401	1/19.7	0.049001*	0.183
	Runway	18.85	1/547	0.000017***	0.033

Wind	2.378	1/545.4	0.123645	0.004
Auditory	1.497	1/539.1	0.221749	0.003
Pre-training Performance	135.8	1/447.3	0.000000***	0.233
Landing Rate Post-Hoc Comparisons (Training)				
Active stim, experience novice vs advanced	12.76	1/21.8	0.003443***	0.369
Experience novice, active stim vs sham	7.553	1/19.9	0.024894*	0.275
Landing Rate Main Effects (Training & Post-Pre)				
Run	1.906	1/1102.4	0.167747	0.002
tDCS	2.294	1/19.5	0.145927	0.105
Experience	8.318	1/20.6	0.008989***	0.288
Run*tDCS	1.757	1/1102.4	0.185331	0.002
Experience*tDCS	3.278	1/19.7	0.085468**	0.143
Runway	24.07	1/1110.4	0.000001***	0.021
Wind	3.62	1/1108.9	0.057362	0.003
Auditory	6.154	1/1102.5	0.013259*	0.006
Pre-training Performance	322	1/1018.3	0.000000***	0.240
Landing Rate Post-Hoc Comparisons (Training & Post-Pre)				
Active stim, experience novice vs advanced	10.02	1/20.8	0.009402***	0.325