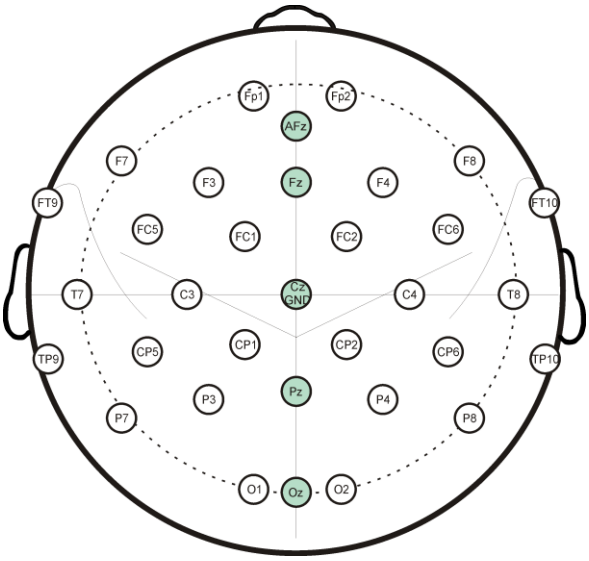
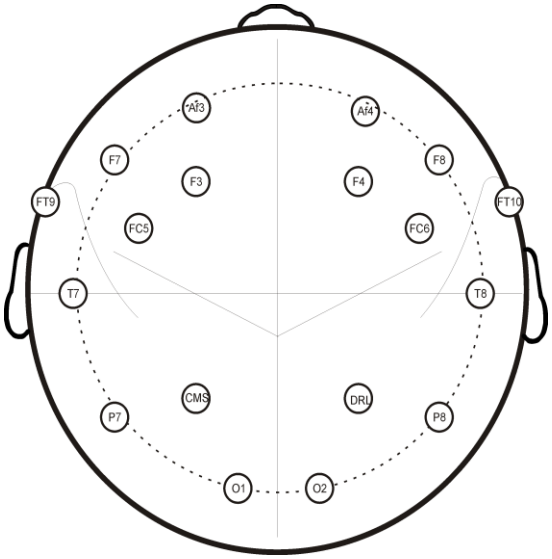
Supplementary materials

Buchanan, D., Grant, J. and D'Angiulli, A. (2019) "Commercial wireless versus standard stationary EEG systems for personalized emotional brain-computer interfaces: a preliminary reliability check", *Neuroscience Research Notes*, 2(1), pp. 7-15. doi: 10.31117/neuroscirn.v2i1.21.

Figure 1S: Electrode placement diagrams for the two different headsets.
Note that the Emotiv EPOC system doesn't have electrodes placed along the midline of the head, and uses the CMS and DRU electrodes as dual reference points, instead of a single ground electrode as in the Brain Vision system.



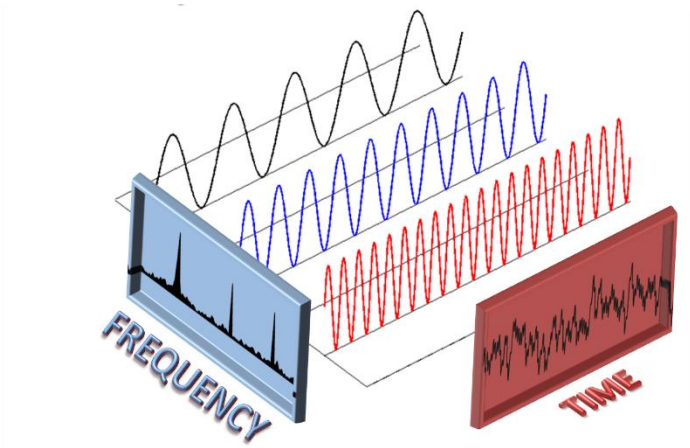
Brain Vision (32-electrode) EEG system with ground at Cz



Emotiv EPOC (14-electrode) system with CMS at P3 and DRL at P4

Figure 2S: Fast Fourier Transform (FFT) Analysis

Band	Frequency Range (Hz)	Colour
delta	1.0-4.0	Pink
theta	4.0-8.0	Green
alpha	8.0-14.0	Brown
beta	14.0-30.0	Red
gamma	30.0-50.0	Orange



- FFTs were computed on the continuous data for each condition using a -1024 to 1024 ms window.
- FFTs were computed for each participant on grand average per condition – high/low arousal and high/low valence.
- FFTs were not computed for nBack tasks.
- FFTs were normalized and the frequency power and amplitude bands from 1-50 Hz were exported for further analysis in SPSS.

Fast Fourier Transform (FFT) Analysis Output (Continued)

Figure 3S

FFT band power for ANEW task (grand average across all 3 subjects)

Figure 4S:

FFT band power for IAPS task (grand average across all 3 subjects