Three independent graphs for sEMG recording under each movement are provided as supplement of the revised manuscript.

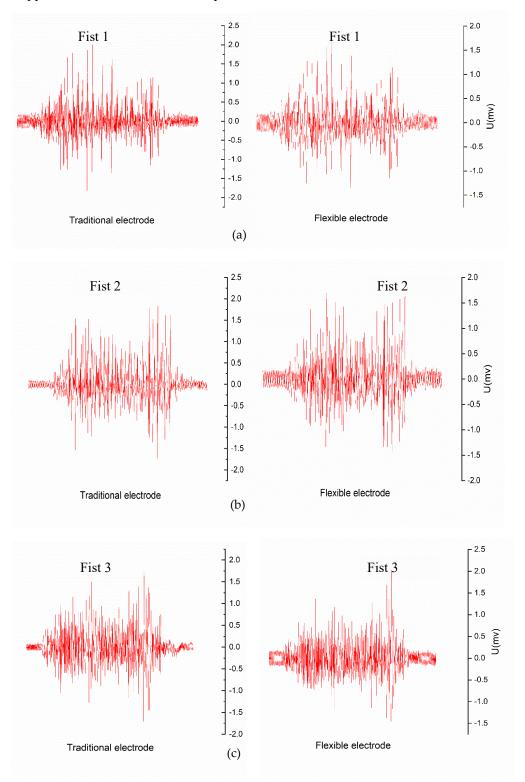


Figure S1. movement of fist (a) the sEMG of fist 1 (b) the sEMG of fist 2 (c) the sEMG of fist 3

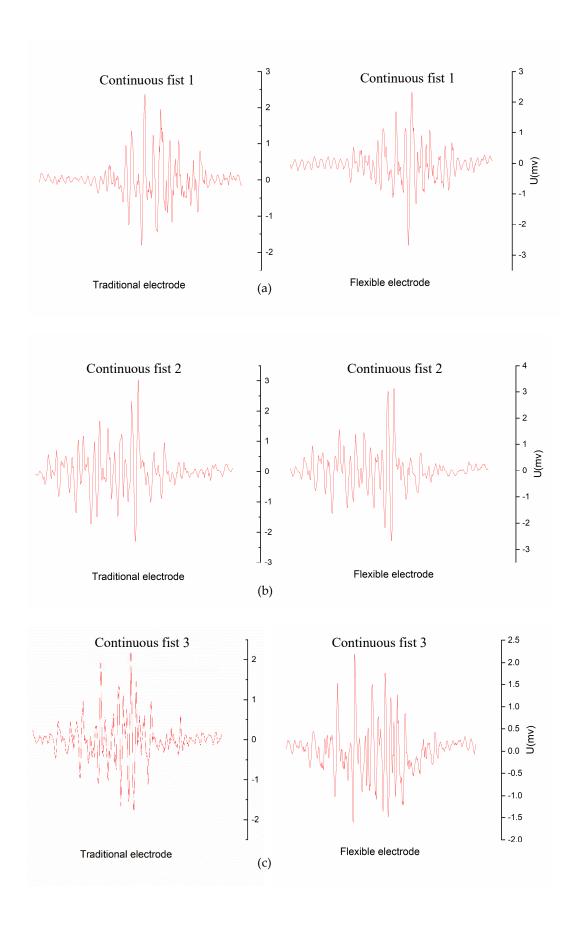


Figure S2. movement of continuous fist (**a**) the sEMG of continuous fist 1 (**b**) the sEMG of continuous fist 2 (**c**) the sEMG of continuous fist 3

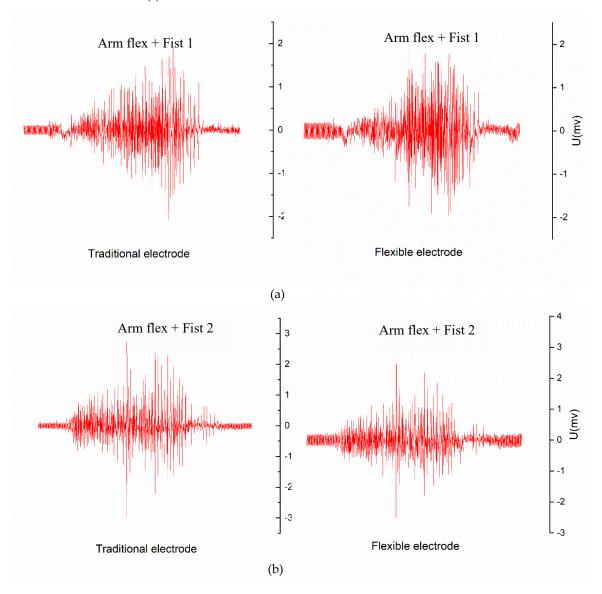


Figure S3. movements of arm flex combining fist (a) the sEMG of arm flex combining with fist 1 (b) the sEMG of arm flex combining with fist 2.