

Study of Three Channel Electrode Position to Detect Optimum Myoelectric Signal on Five Type Grasp Movement

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Abstract : Myoelectric is prosthetic, flexible, and offered industrial application has been highly developed and widely used. Myoelectric hand use myoelectric signal from muscle to activate and control the membrane part of hand. Commonly myoelectric signal is detected on human arm from skin surface. So that it only small magnitude signal captured. Detecting myoelectric signal on the skin surface takes proper and consistent procedure. This paper provides preliminary study of electrodes position which gives best signal strength for five basic grasping. Two-position scenario used to place three channel electrodes set. A bi-potential amplifier based on AD620 used to amplify the signal. Finally, the signal was analyzed using DSSF3 software. From this study, we found that grasp type was stronger using first scenario electrode placement while the rest type better with another scenario.

Keywords : myoelectric signal, basic grasp, DSSF3, electrode, bi-potential amplifier

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