Velocity and ridge-to-ridge distance frequency modulate mechanoreceptive sfferent unit firing during passive stimulation

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Abstract

The firing activity of single unit mechanoreceptor afferents in the human hand is recorded while robotically stimulated by a sliding surface varying in the spatial period of surface ridges, normal force, and sliding velocity. We find that firing activity is not time-locked, but rather firing is significantly modulated at the fundamental frequency determined by the ratio of the sliding velocity and spatial period of the surface.

Keywords: LTMs, Mechanoreceptor, Microneurography

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