

## **A Step Magnitude Haptic Feedback Device and Platform for Better Way to Review Kinesthetic Vibrotactile 3D Design in Professional Training**

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**Abstract :** In the modern world of remotely interactive virtual reality-based learning and teaching, including professional skill-building training and acquisition practices, as well as data acquisition and robotic systems, the revolutionary application or implementation of field-programmable neurostimulator aids and first-hand interactive sensitisation techniques into 3D holographic audio-visual platforms have been a coveted dream of many scholars, professionals, scientists, and students. Integration of 'kinaesthetic vibrotactile haptic perception' along with an actuated step magnitude contact profiloscopy in augmented reality-based learning platforms and professional training can be implemented by using an extremely calculated and well-coordinated image telemetry including remote data mining and control technique. A real-time, computer-aided (PLC-SCADA) field calibration based algorithm must be designed for the purpose. But most importantly, in order to actually realise, as well as to 'interact' with some 3D holographic models displayed over a remote screen using remote laser image telemetry and control, all spatio-physical parameters like cardinal alignment, gyroscopic compensation, as well as surface profile and thermal compositions, must be implemented using zero-order type 1 actuators (or transducers) because they provide zero hystereses, zero backlashes, low deadtime as well as providing a linear, absolutely controllable, intrinsically observable and smooth performance with the least amount of error compensation while ensuring the best ergonomic comfort ever possible for the users.

**Keywords :** haptic feedback, kinaesthetic vibrotactile 3D design, medical simulation training, piezo diaphragm based actuator

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