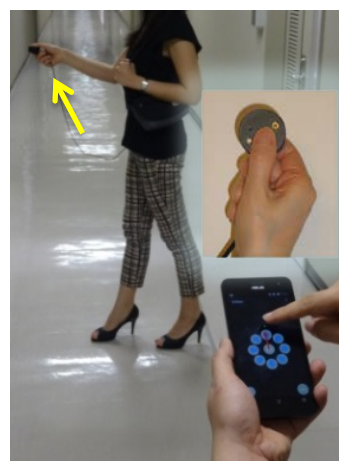
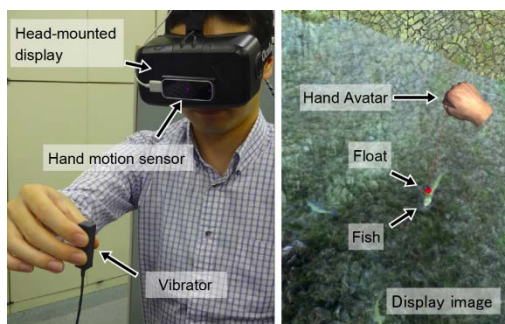


Abstract

Mobile force display gadget, Buru-Navi, has been evolved by developing a new contact surface structure and a new driving method, which enable us to create rich force display interfaces for interaction games with smartphone, tablet, or head-mount display, and for walking navigation.

To further improve performance of the force display device, we started to develop an actuator device optimized for causing an illusory force sensation.

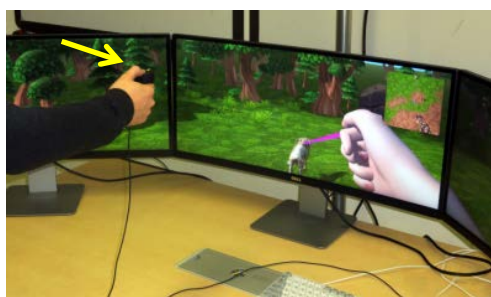
By understanding human conscious perception and action mechanisms for tactile and force sensory information, we will be able to use a tactile/force modality channel in order to enrich our interactions in telecommunication.



Virtual angling

Fish leaping sensation in angling games with mobile tablet and VR-HMD.

Pedestrian navigation



Virtual dog-walking

Flexible and quick changes in force direction and amplitude



Pillar array surface improving illusory force sensation

【Reference】

- [1] H. Gomi, T. Amemiya, S. Takamuku, S. Ito, "Development of force sensation display gadget : Buru-Navi3" . Gazo-lab, vol. 26(7), pp 41-44: Japan Industrial Publishing Co. LTD. 2015
 [2] T. Teshima, S. Takamuku, T. Amemiya, H. Gomi, "Light touch on pillar array surface greatly improves directional perception induced by asymmetric vibration". In: ASIA SIGGRAPH workshop on haptic media and contents design, 2015

【Contact】

Hiroaki Gomi Sensory and Motor Research Group, Human and Information Science Laboratory
 E-mail : gomi.hiroaki(at)lab.ntt.co.jp