

HaptoMime: Mid-Air Haptic Interaction with a Floating Virtual Screen

【Main Content】:

We showed HaptoMime, an aerial interactive system that allows users to use haptic feedback to touch a floating virtual screen. Here we propose a method of superimposing hands-free haptic feedback on this floating image using ultrasound. By tracking the fingertip with an electronically controlled ultrasound beam, the fingertip encounters a mechanical force consistent with the floating image.

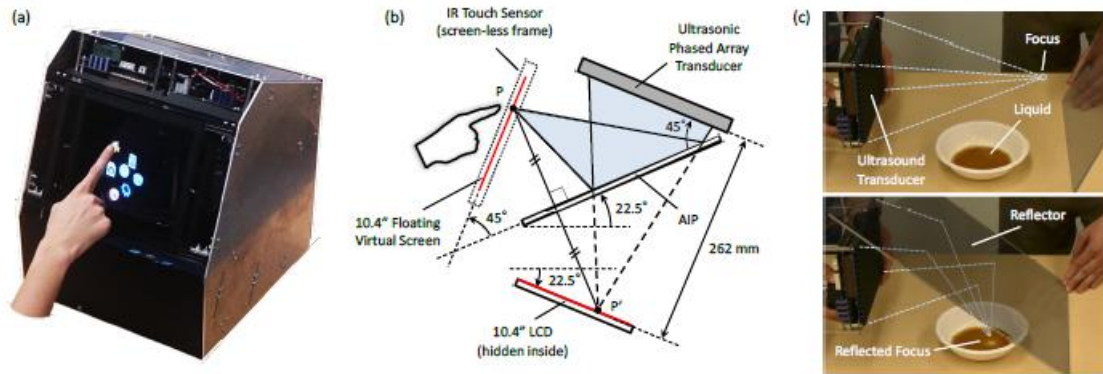


Figure 1: HaptoMime enables interaction with floating images in the presence of ultrasonic tactile feedback. (a) System appearance. (b) System configuration. (c) Redirection of an acoustic radiation pressure by ultrasonic reflection.