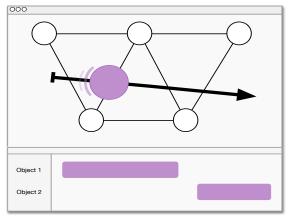
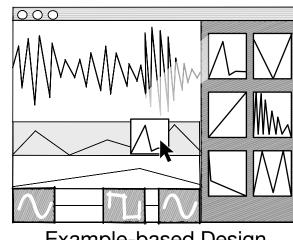


Haptic Instrument



Tactile Animation



Example-based Design

Who Haptic Designer-Proxies (researchers with some haptics experience)

Animators (visual designers who would be haptic designers) End-users (people with and without basic media editor experience)

What Dual Haptuators

Spatial Vibrotactile Pad

Phone-mounted Haptuator

How Real-time, collaborative parameter control

Direct space/time manipulation of animation object

Example-based interaction techniques, morphing