

Considerations for Keypad Design

List of Features/Considerations for Keypad

- vertical (volume) slider better than horizontal
- include a wrist rest/support
- concave key surface for non-slip is best
- sufficient distance between the keys (no less than half a key width)
- shape of key matches function?
- larger keys better (but not too large as to be unidentifiable as a key)
- arrange keys to line up with resting finger positions?
- include a keyguard for accurate key selection?
- keys only activated when pressed down for sufficient time, in order to ignore accidental key presses (eg. caps lock key on mac os)
- solution for left-handed users or users who cannot reach the keypad (e.g. wheelchair too large to roll right up to kiosk)?
 - e.g. a detachable, hand-held device like the [3G Off-Table Handtrack wire mouse](#)
- audio feedback upon key selection or "snap" key for user-confirmation
- internal key illumination – could brighten upon engagement
- physical separation of keypad groups:
 - navigation keys (forward, back, select)
 - home
 - help
 - audio keys (volume, headphone jack, audio description on/off)
- audio description/screen reader icon improvement (speech bubble?)
- "back" key function needs to be clearer – change to undo? Need better icon
- embossed/(engraved?) symbols on keys for tactile feedback
 - e.g. volume slider with embossed icon along with +/- embossed symbols indicating volume limits at each end
- put headphone jack in centre of headphone icon?
- sufficient height of keys (>5mm as per ETSI)
- contrast between keys and kiosk base (illumination will help) as well as contrast between key label/icon and key itself
- minimum size of keys (>12mm in any dimension)
- key material (matte surface best for reduced glare but non-slip)
- size of characters on keys >7.5mm with 1mm between character and edge of key
- sans serif font, lowercase letter height > ½ of upper case height
- function keys should be labelled with the full function names in the national or preferred language, or by well-known symbols

List of Questions

- do external speakers turn off when headphone is plugged in?
- what is function of headphones?
- audio description can come through external speakers
- is it just to provide greater volume than can be tolerated in the museum environment? (i.e. assistive listening rather than audio description)
- want to avoid someone having to go from kiosk to kiosk plugging in headphones each time – can we assume that users requiring assistive listening will come with a personal solution (e.g. hearing aid)?
- is there sufficient refresh time--out in the system to allow for users requiring more time to navigate?