THE STICK

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THE STICK

Overview

ReDesdign

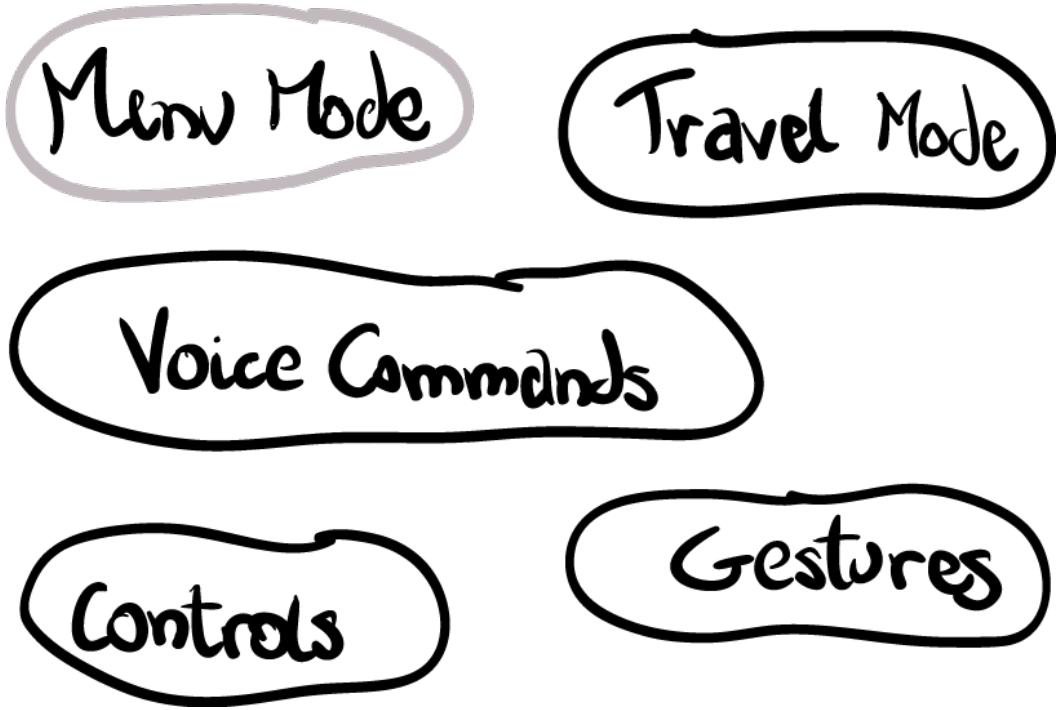
Input | Output

Task Analisys

QOC

Evaluation

Discussion



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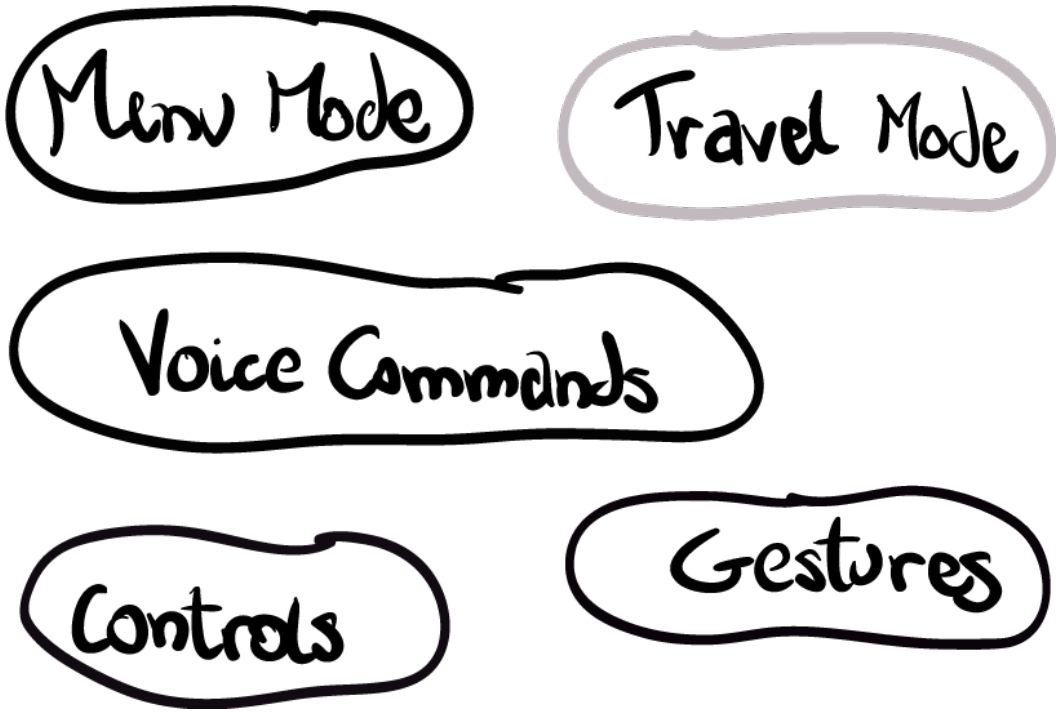

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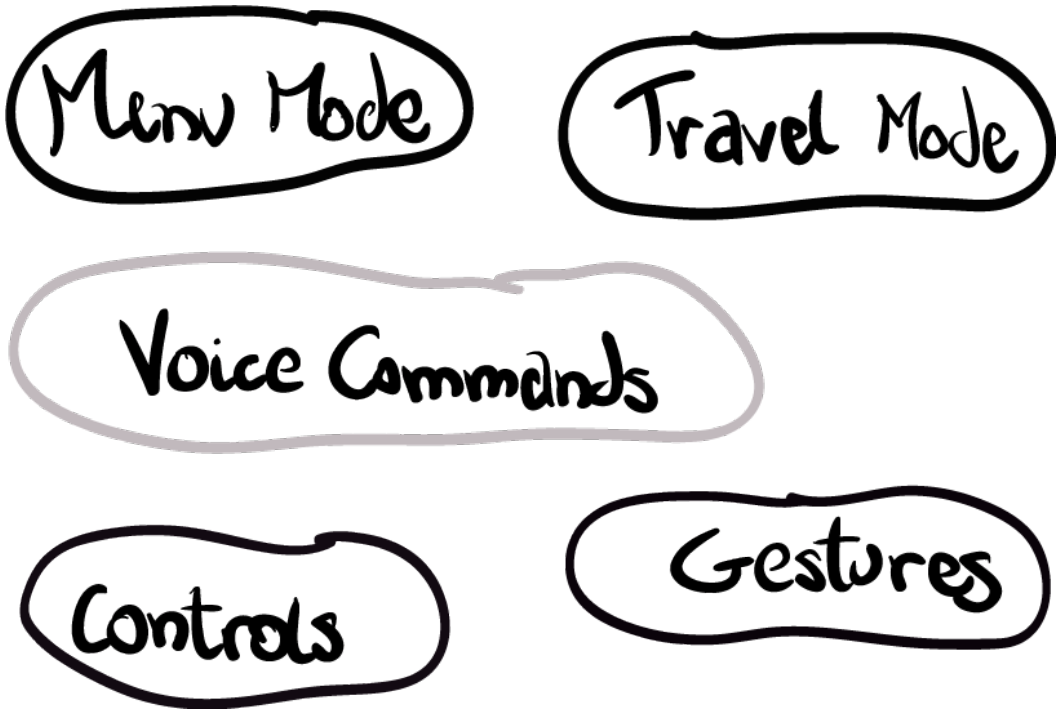

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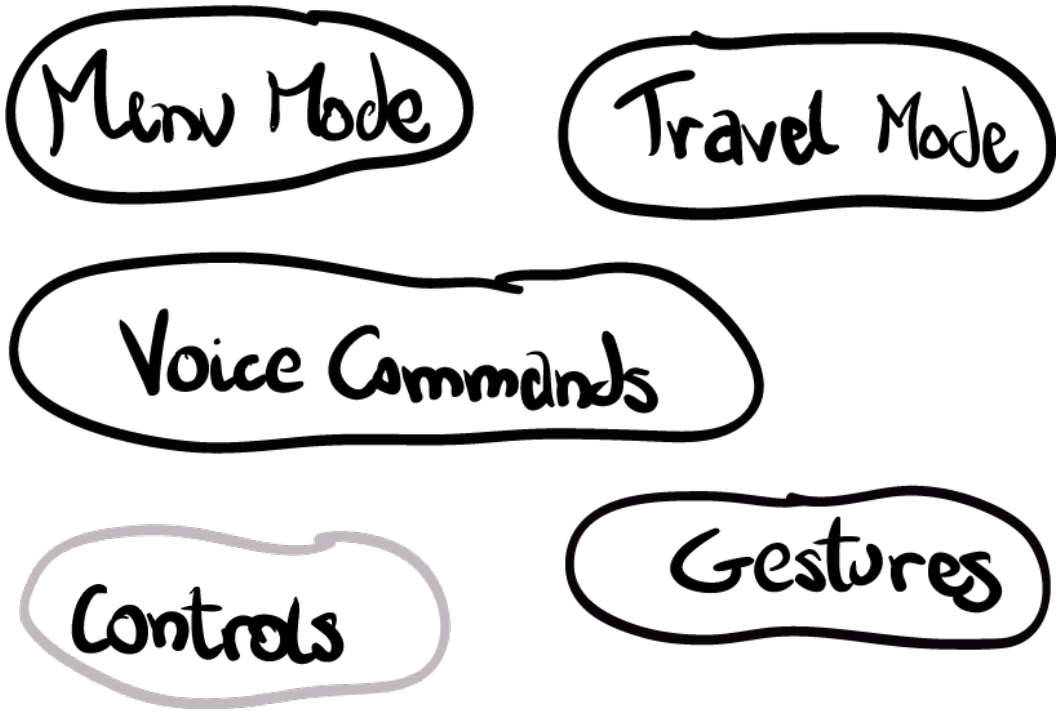

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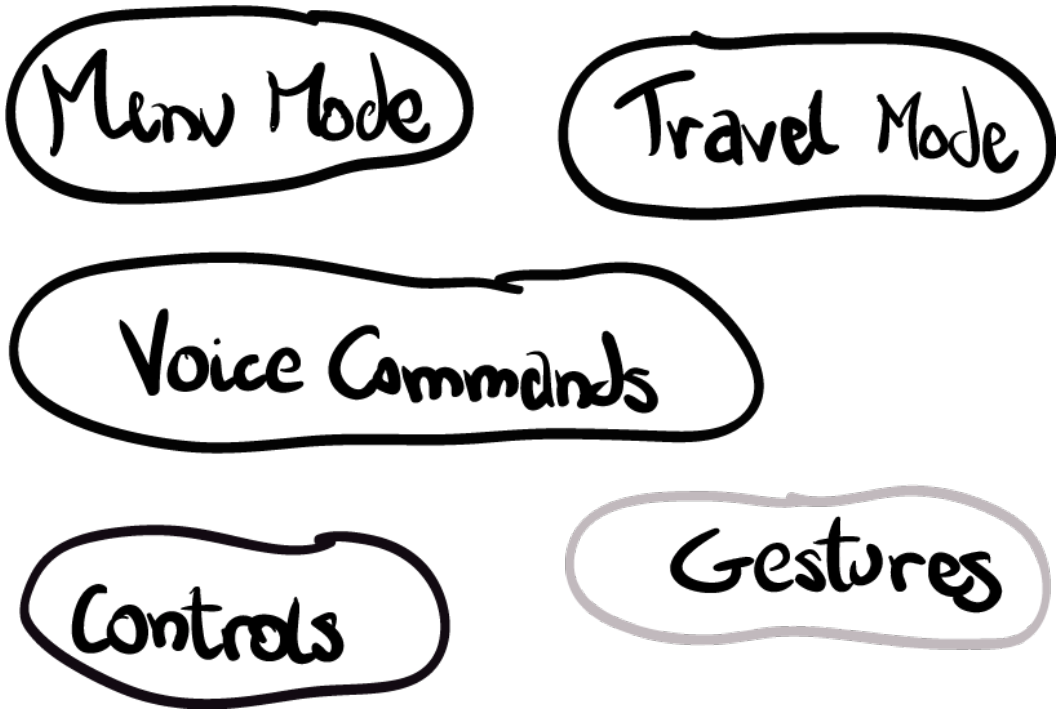

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Navigation

Overview

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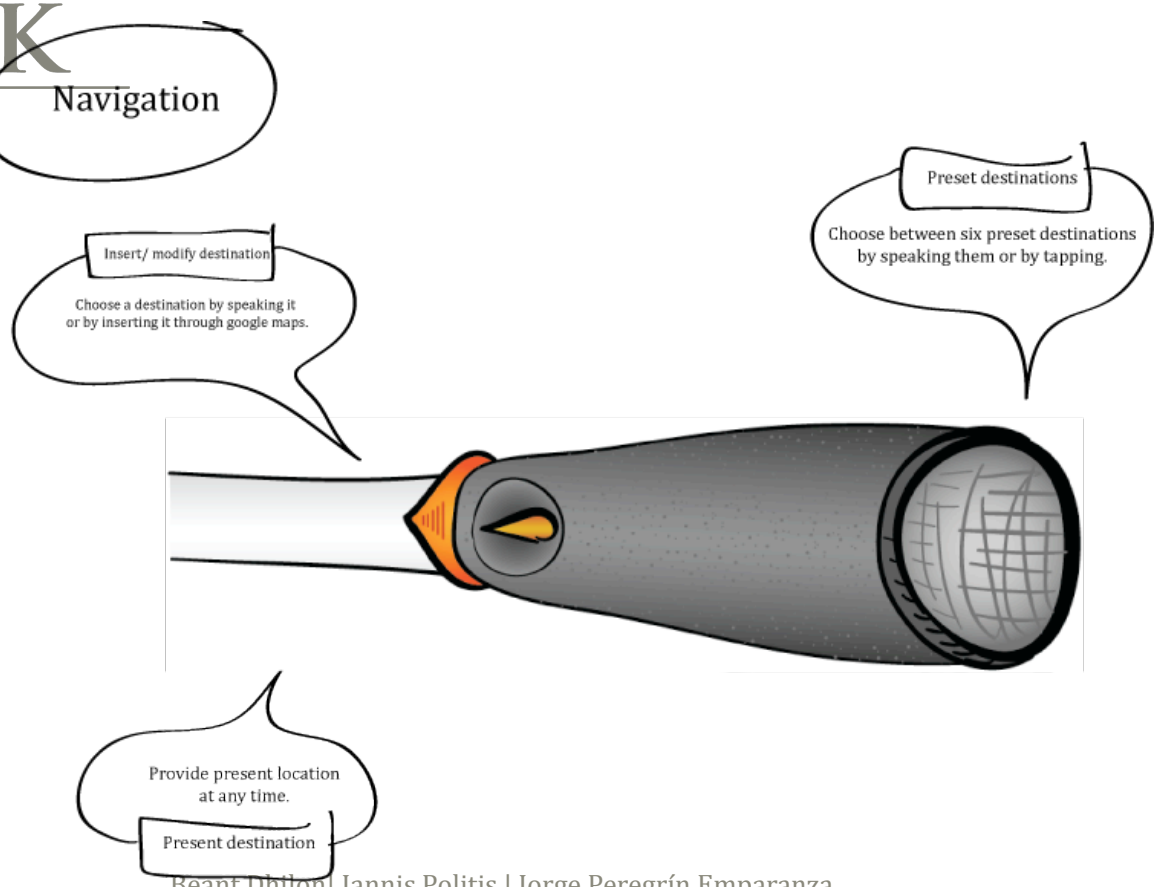
QOC

Evaluation

Discussion



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Notifications

Overview

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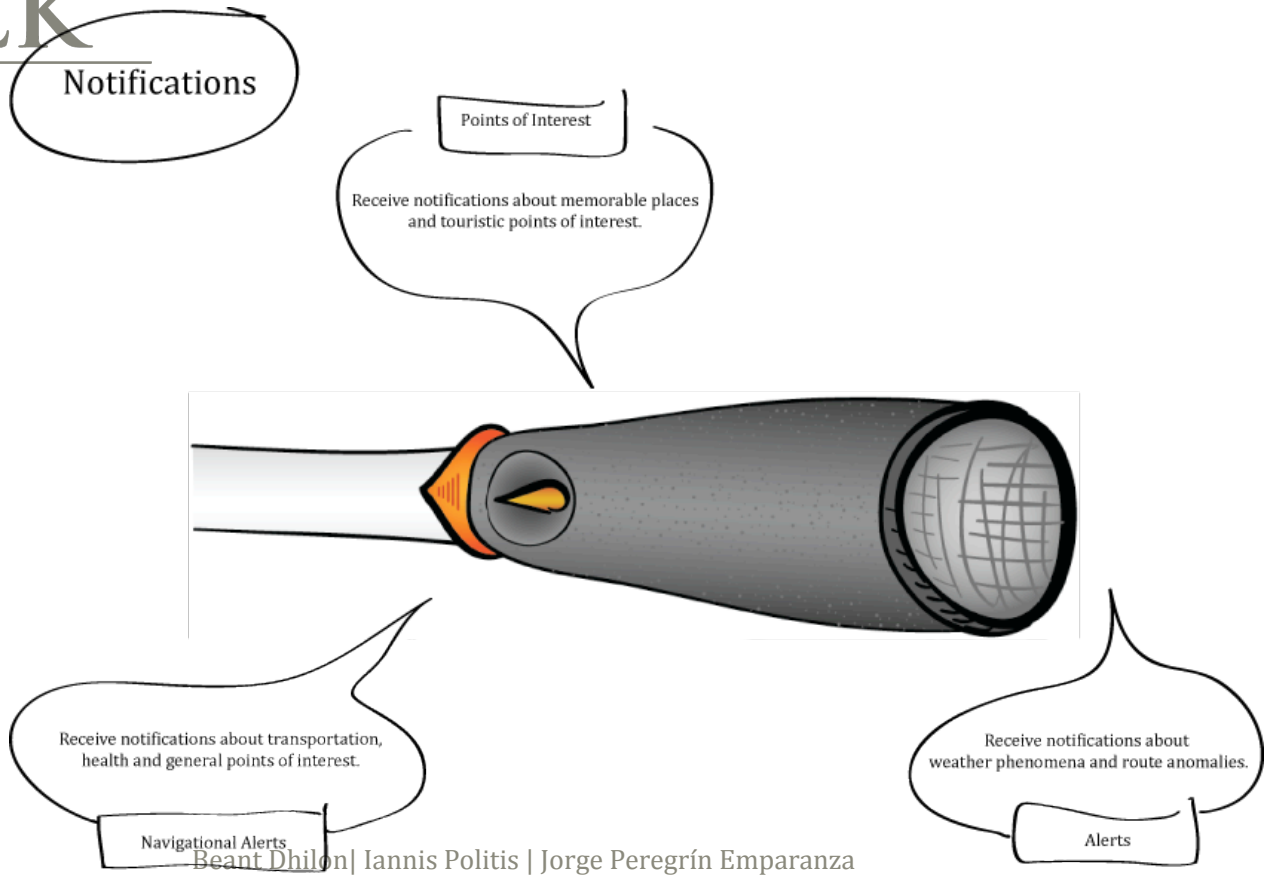

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THE STICK

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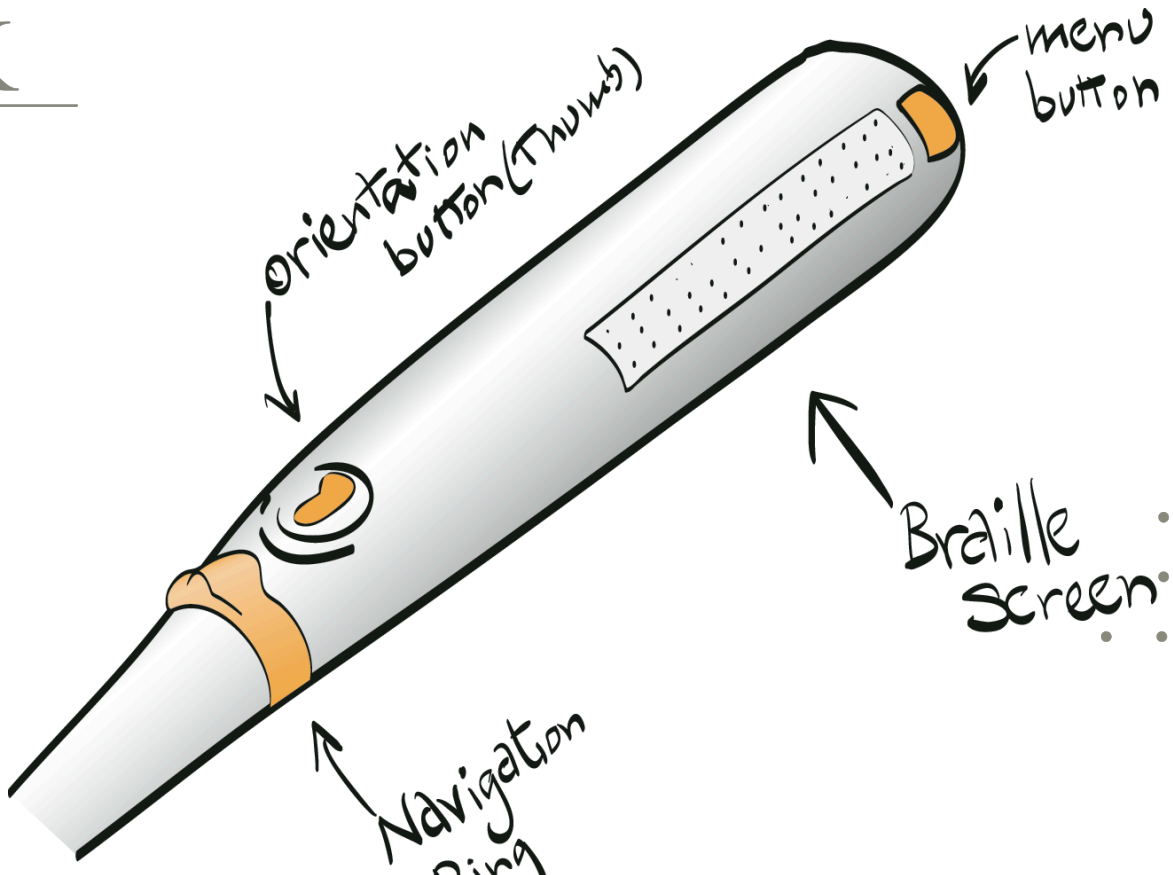
- Input | Output
- Task Analisys
- QOC
- Evaluation
- Discussion



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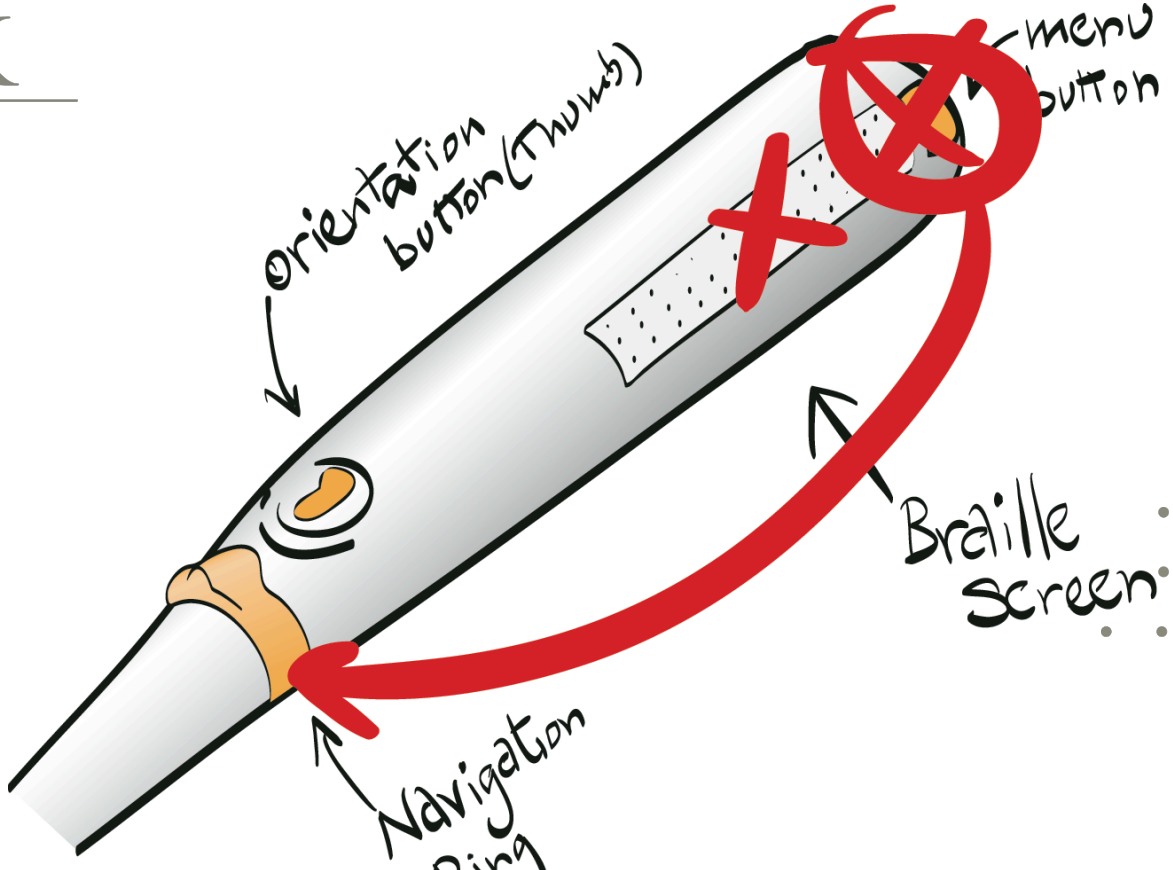

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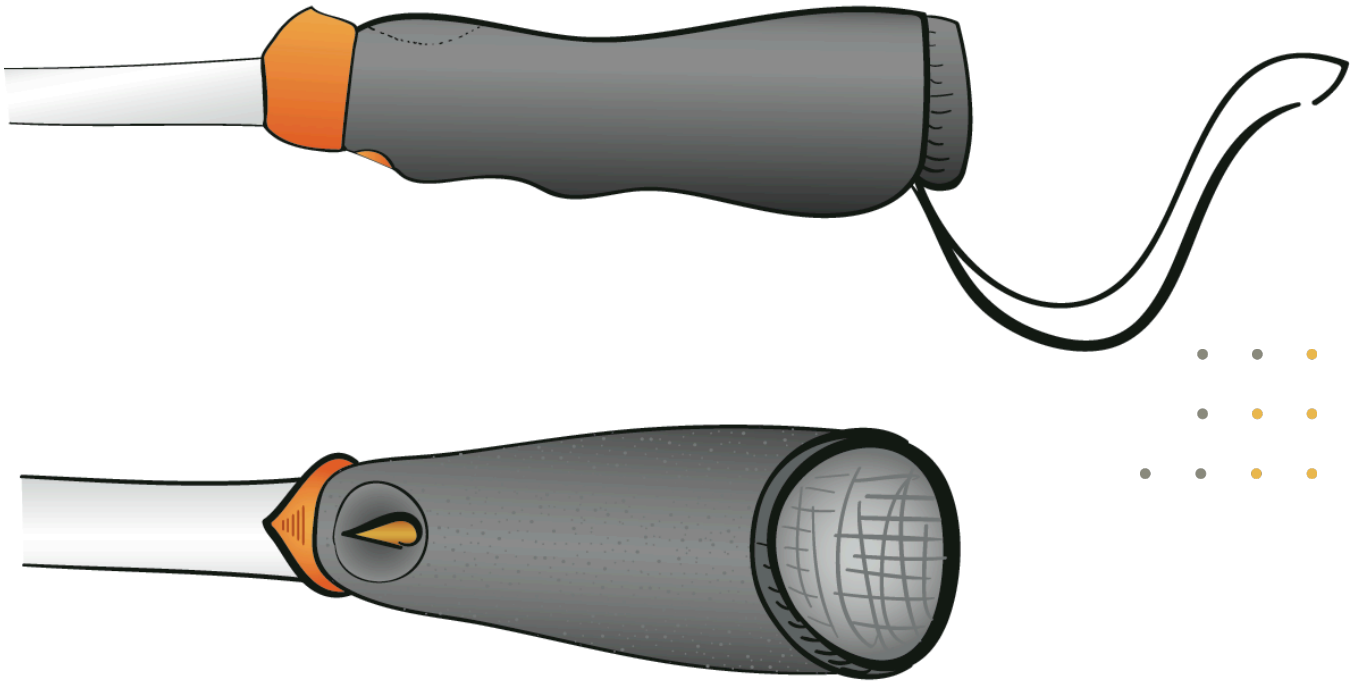

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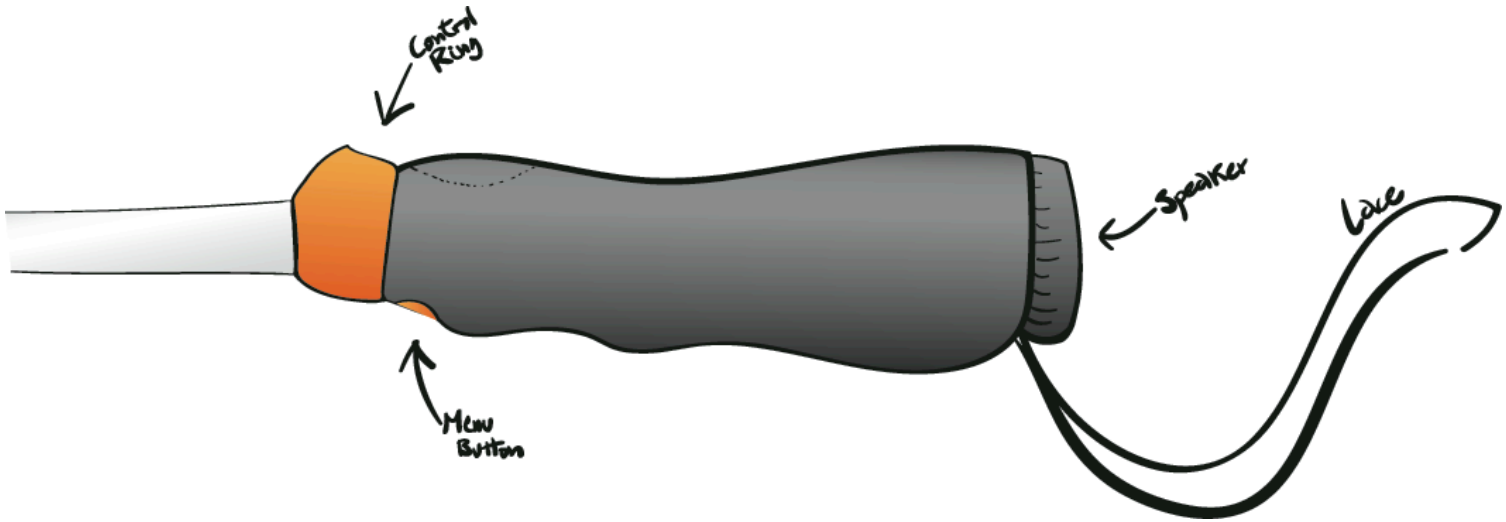

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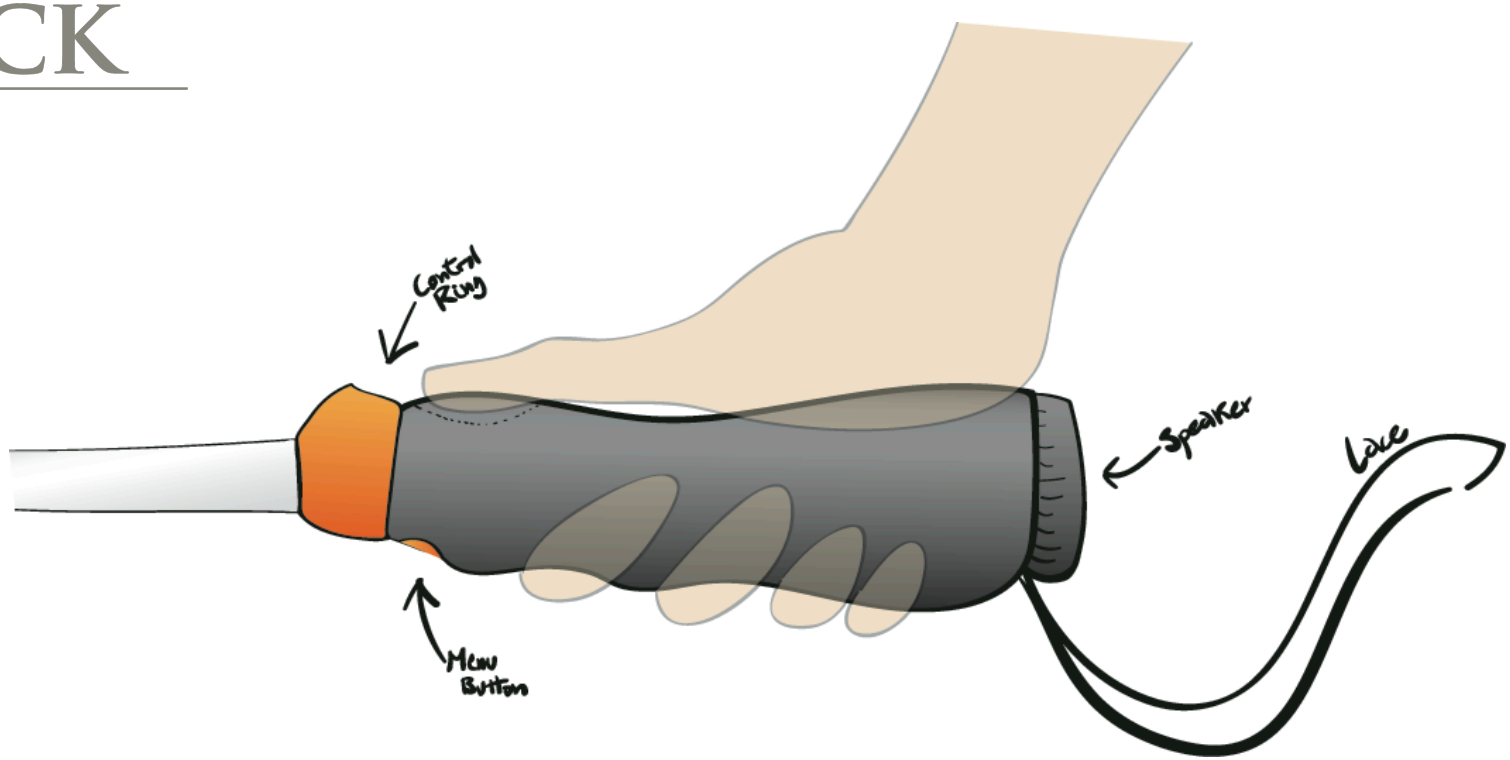

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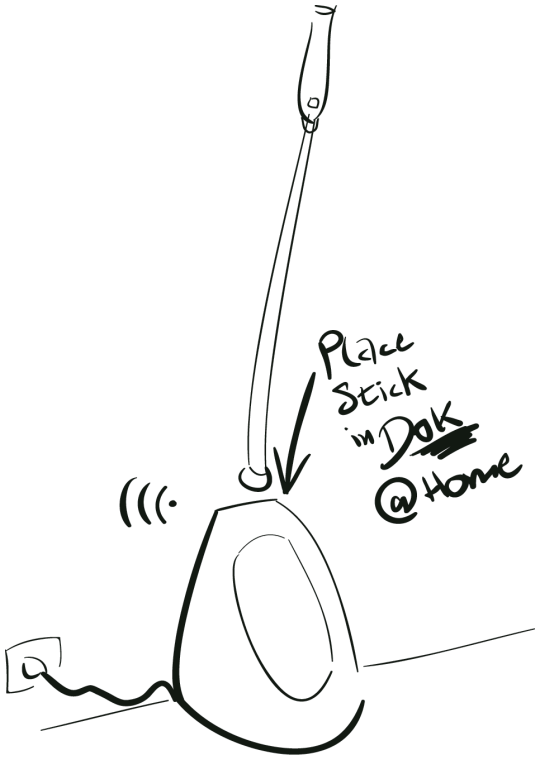

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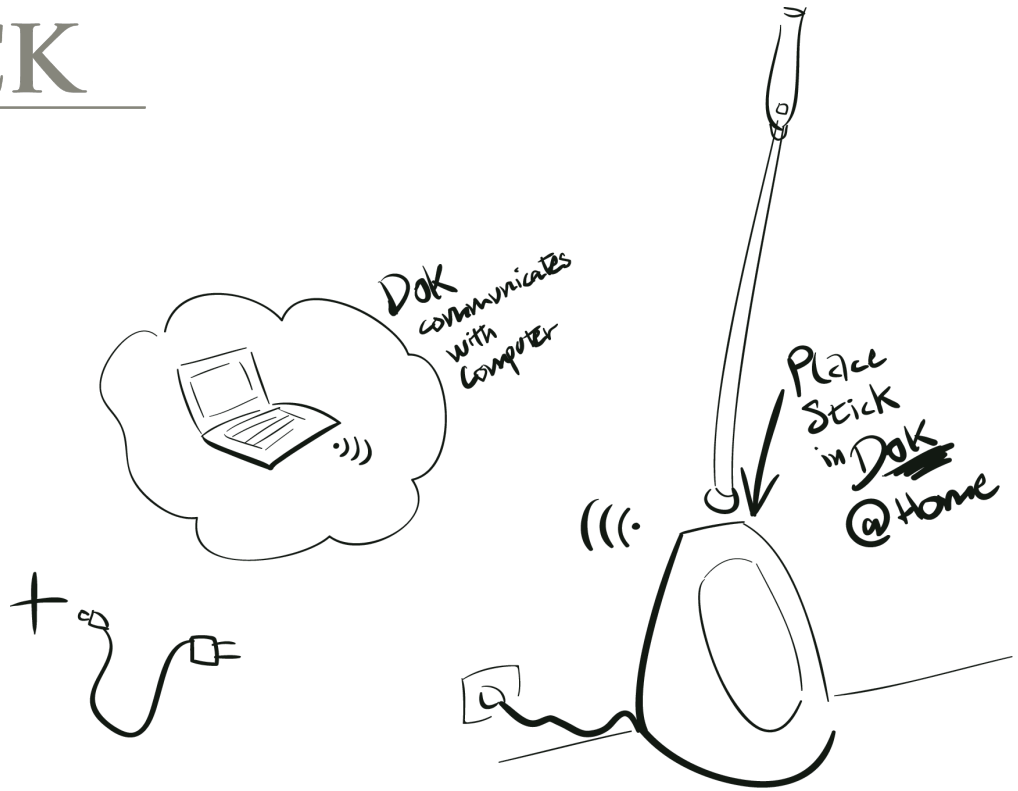

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INPUTS

Microphone- Speech

Menu button

Gestures (tap in floor and shake)

Ring for menu choices

Back/Previous | Forward/Next

Cancel | Confirm | Play

OUTPUTS

Speaker – Audio

Tactile Output

Direction Arrow | Vibration

Braille Display(Peripheral)

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MODALITIES

ACTIVE

Ring (arbitrary)
Menu button (arbitrary)
Audio feedback (analogue)

PASSIVE

Arrow-compass (analogue)
Vibration (analogue)
Speech detection (analogue)

PRIVATE – PUBLIC ...

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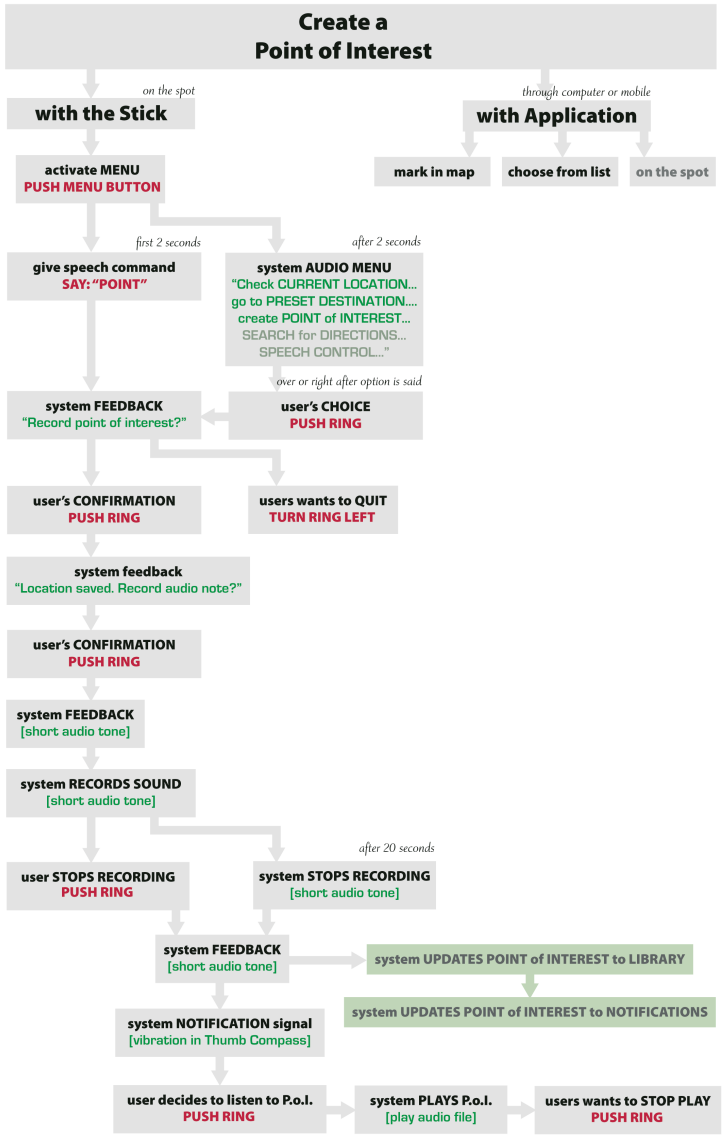

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QOC Approach – Example 1

Question	Options	Criterion
Braille Display	- On the stick - In hand-held device - As a peripheral	- Stick should be simple - 12% of blind students in US braille literate (BrailleInstitute.org) - Those who use it adamant to have it (*Coverstone et al, 2007*)

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QOC Approach – Example 2

Question	Options	Criterion
-How does the user access a current alert while accessing Menu?	- Store the alert for later. - Switch to Navigation and Mode access the alert, switch back to resume Menu	- Alerts are priority (Simonov et al) - Shouldn't lose current position in menu

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QOC Approach – Example 3(semi-resolved!!)

Question	Options	Criterion
How does the user charge the battery ?	- A dock + a plug-in charger *(for travelling)* - A plug- in charger - Detachable handle can be plugged-in via USB or electrical socket	- Easy to locate - Easy to plug-in - Portable - Requires minimal assembly - Requires minimal number of devices

THE STICK

USABILITY TESTING

-3 Subjects **blindfolded**
-A **low-fi** prototype used
- Subjects didn't see stick before being blind-folded
-Simulated using **Wizard-of-Oz** approach

Example Task:

You received an alert. Do you feel it? How will you listen to it? How will you repeat it?

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RESULTS

-The subjects felt the functions of the stick were **intuitive and easy-to-learn.**

- Subject 3: “The stick ‘feels’ more hi-fi than it is”

POINT OF IMPROVEMENT

Click the Ring button to confirm instead of push forward to confirm

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Social implications
Network of PoIs?

Stigma?
Too much assistance?
Audio?

Evaluation limitations

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