

Cate

Collaborative Project 2023-2024

**A low cost communication aid for
hard-of-hearing patients within a hospital
ward environment**

Clinical Leads

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The Challenge

1 in 6 of the UK adult population is affected by hearing loss, making it a common phenomenon within hospital wards, significantly affecting patient-clinician communication.

Patients not being able to hear and communicate effectively results in increased wait times, lengthened hospital stays, ineffective treatment adherence and results in adverse medical incidents, as well as wasting staff members' time.

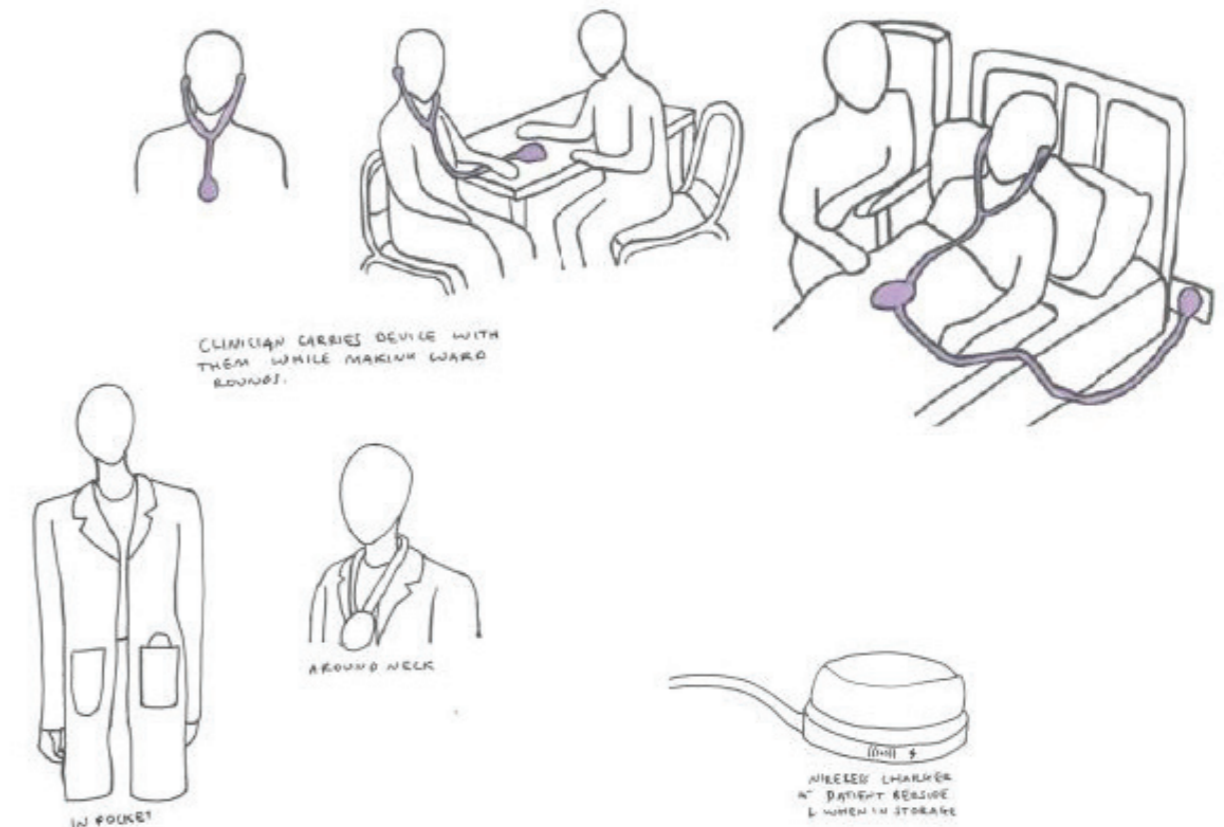
Existing devices are hard to use with 2 in 3 struggling with products currently in use in hospital wards. In addition to this, the small nature of existing products affects its usability with people with dexterity issues as well as often leads to units being misplaced.

Product Requirements

- The product must be ergonomic and suitable for those with impaired motor control
- Difficult to be misplaced/stolen
- Must be cleanable for a sterile hospital environment
- Reusable and low cost to be issued to each patient

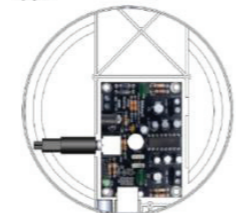
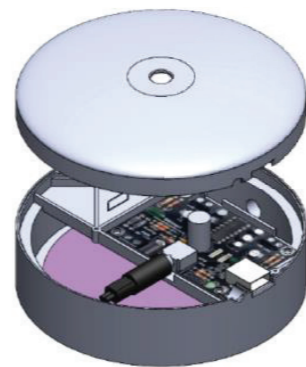
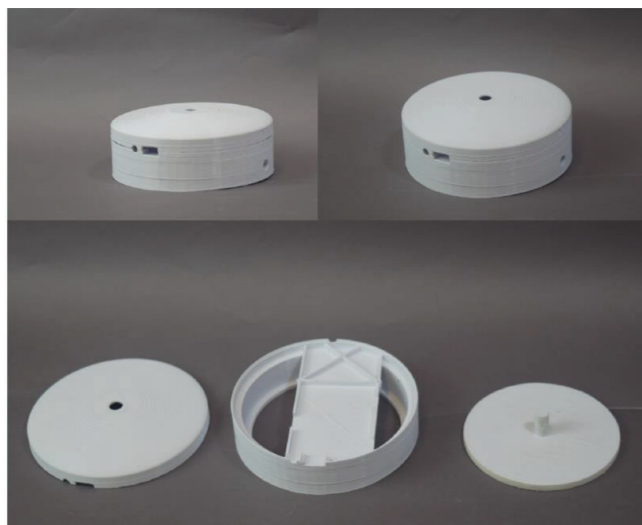
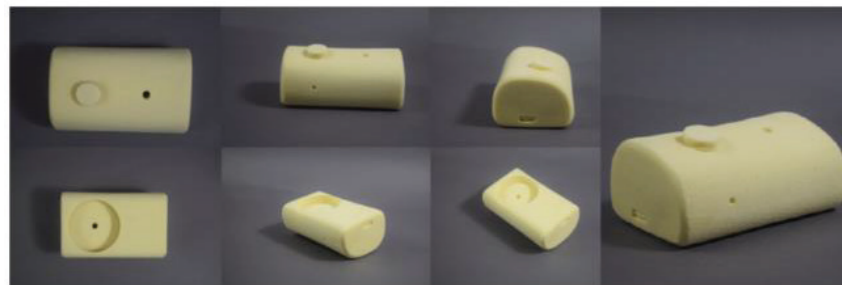
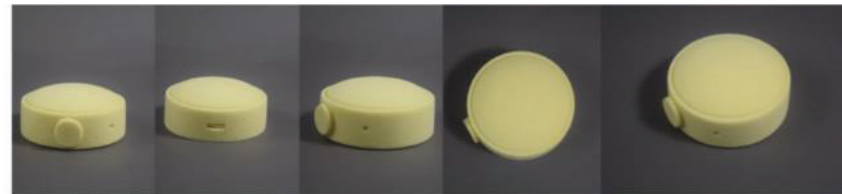
Ideation and Development

Initial ideation and concept development

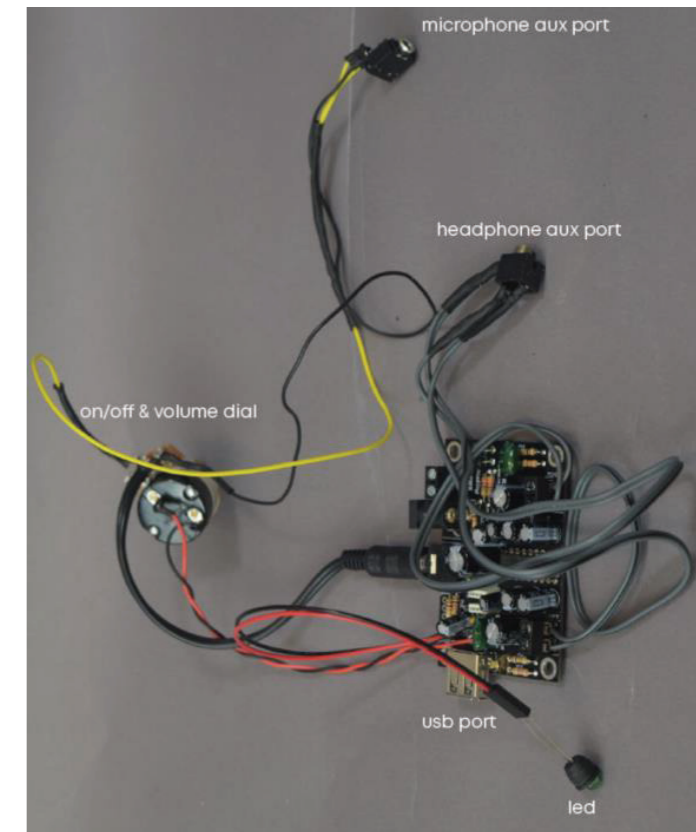


Ideation and Development Cont.

Physical Form Development and Ideation



Fully Functional High Fidelity Prototype



Final Prototype



Cate features a large volume knob to ensure users with dexterity issues can intuitively use product



Functional prototype in use in hospital