

PoC development of voice AR UI for simple visualisation of data

- Software Development Research



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Problem this Research Would Address (1 of 2)

- A potential barrier to widespread adoption of AR is a typical need for hand gestures to be required to interact with an AR headset UI
- **PROBLEM:** In many environments it is not always possible for the user to perform hand gestures to interact with an AR system

Problem this Research Would Address (2 of 2)

To be considered:

- Identification of use cases where a voice only UI is a requirement
- MVP requirements for a PoC voice only interface for AR headsets

Whose problem would be addressed?

- *Providers of enterprise wearable AR platforms* would be able to more quickly/reliably
 - Increase adoption of AR into new use cases previously not considered and potentially difficult to access
- *Enterprise safety managers* would
 - Have an increased opportunity to utilize AR in the workplace
- *Regulatory agencies or groups* would
 - Develop new standards associated with development of voice only AR interfaces

How would this research be conducted?

(1 of 2)

1. The research would be conducted by engineers at the UoS AMRC
2. AMRC would develop a PoC Unity plugin for a voice only interface to the HoloLens 2 that demonstrates some of the key MVP UI requirements such as opening windows, viewing documents and images

How would this research be conducted?

(2 of 2)

3. The PoC plugin would be developed within the AMRC Digital Operating Theatre platform to demonstrate a possible use case
4. Feedback from surgeons would be obtained to determine the usability and efficacy of the UI
5. The plugin would be developed as a generic interface for adoption in multiple sectors including manufacturing, construction and healthcare

The outcome of the research project will be:

- A generic PoC plugin demonstrating the possibilities of voice only UI within AR

Benefits to AREA Members

- AREA members :
 - Access to the PoC voice plugin developed during the research
- Long term impacts of this research:
 - Possibilities for new AR UI platforms
 - Increased adoption of AR through flexible UI options
 - Development of standards for AR voice UI
 - Democratisation of AR with access for disadvantaged users