Assignment 1

1 Aim

Identify specialised users and related facilities for a selected product/system and make necessary suggestions for its improved accessibility design.

2 Objective

To be able to identify the needs of all types of users of the system, and devise design solutions to fulfill them.

3 Outcome

Students will be able to provide solutions and suggestions to improve the system's design

4 Theory

The system under study is our final year project, which is a wearable technology for group management. The system consists of two main interfaces:

- Android application on a mobile device
- A band with an OLED display and a buttons for user input

Specialised users that may be using the system could be:

- Users with visual disabilities
- Senior citizens
- Young children

Suggestions to improve the system's accessibility design:

- Make fonts and colour schemes on the application and device screens easy to read

- Buttons should have easy to understand symbols so as to be understood by even toddlers who may not have learned how to read
- Text-to-speech output for the bands
- Haptic feedback on bands
- Incorporating suggestions from the Android Developer's official website into our application to make it more accessible
- Add a beep or vibration for students, as well as a button that when pressed, will indicate the distance of the student from the rest of the group through duration of the beep or vibration, e.g. 2 seconds for close 5 seconds for in range and 10 seconds for going to far.
  - Language/culture independent, unlike speech
  - Resolution of ambiguity in one mode through information in another
  - Background status information
- Testing the system's accessibility design with specialised users and incorporating their suggestions.

5 Conclusion

Through this assignment, we have understood how to improve our system's accessibility design