**Deliverable D**

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**Introduction**

The objective of these conceptual designs is to provide several solutions related to the problem statement and design criteria we developed. This subsystem will mainly focus on the hardware of the glasses itself which is going to be used real-time during the work.

**Focus**

The following subsystem concepts are focusing on these design criteria: Flexibility, Unique Experience, Accessibility, Weight, Lens size, Arm size, Face width, and Aesthetics. In terms of the design, the design criterion with a lower priority is considered later.

**Design Sketches**

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1. Camera
   1. Camera at side
      1. The camera is placed at the side part of the glasses
      2. It will take decent number of spaces at the side part of the glasses making its arm thicker
      3. The view of the mentor can be slightly different compared to the worker
      4. Lightweight and less awkward in terms of aesthetic
      5. If not held carefully, the weight of the glasses might be unbalanced
   2. Camera at mid
      1. The camera is placed at the middle part of the glasses
      2. It will take a decent number of spaces at the mid part of the glasses making the bridge thicker.
      3. Thicker bridge can lead to awkward design
      4. Lightweight, easier the balance the weight
   3. Separate Camera
      1. The camera is placed externally to the glasses
      2. It will take decent external space apart from the glasses.
      3. Heavier than most of other options
      4. Easier to replace, test, and repair the camera pieces when damaged

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1. Audio
   1. Bone-Conductor
      1. More comfortable fits, work as hearing aid
      2. Clean, hygienic because the bone-conductor is not directly in contact with ear
      3. Clear sound quality
      4. Can be expensive
   2. Speaker
      1. Small speaker inside the glasses is placed near the ear
      2. Cheapest option
      3. Unclear sound quality
      4. During work, the sound of speaker can be disturbed by the environment
   3. External Earphone
      1. Using another hardware addition to the glasses for the audio
      2. Can be inconvenient to equip during working
      3. Heavy, uncomfortable
      4. Easier to replace, test, and repair the camera pieces when damaged
      5. Decent price