The main objective of this project is to develop a solution which allows real-time data acquisition and presents the information in the form of an optical head mounted display (OMHD).

- Project will support real-time data with minimal delay
- Data acquisition will support both continuous and discrete measurements
- Head mounted display will support voice controlled operation
- Software will support multiple data signals
- Device will provide usage in both laboratory and medical settings

**Goals**

**GlassVIEW Design Procedure**

- Research Glass API
- Design Prototype
- Evaluate Prototype
- Update Requirements
- Redesign
- Implement New Design
- Measure performance & fine tune

**GlassVIEW Operation**

Google Glass displays information from LabVIEW will be displayed in a graphical format on GlassVIEW. To facilitate ease of use, the process of receiving data through TCP/IP configurations will remain invisible to the user. GlassVIEW receives each graph in a separate port, and users will be able to change what graph he or she wants to see with swipe gestures or voice commands. GlassVIEW provides users the ability to view this graph in either a continuous or discrete format, with the app adjusting its viewing properties accordingly.

**LabVIEW Operation**

LabVIEW obtains information from nearly any data acquisition device. We provide two VI's with our solution to work with the oscilloscopes in our labs, that enable either continuous or discrete measurements. Using our VI's the user simply selects which signals to send to Glass.

**Conclusion**

The goal of GlassVIEW focuses on creating an interface for Google Glass to work with real-time data acquisition equipment, with an end goal of medical use. Although limited by the hardware capabilities of Glass, our team created an app that implements an easy-to-use interface, continuous and discrete measurements, and minimal delay. While our project is fully functional, this application will not be suitable for commercial use until a future generation of Google Glass fixes overheating issues and offers more powerful hardware.

**Ethics**

All LabVIEW VI's created fall under the license provided by the University of Texas at Dallas. The Google Glass application is built on an open-source platform, negating any copyright issues since the product is not for resale at this time. GlassVIEW is not yet suitable for extended use in medicine as battery life and heat dissipation limits its ability for extended use.