Project Technical Specification for a Geek Goggles - Team Echo
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1. The device will reflect a rendered UI on a micro-display through a collimating lens and prism onto an optical mounted on safety glasses so the user can see an image overlayed a comfortable distance in front of them.
2. The device will cycle through each display mode on button click, each mode is clearly displayed. The device is able to cycle back to the original mode:
    - Default mode - only displays time for minimal visual invasion
    - Peripheral Mode - User clicks “Action button” to cycle through Peripherals
        i. Peripheral 1 -peripheral info from peripheral, in our case the initial peripheral will be a volt-meter so voltage readings will be displayed
        ii. Peripheral n - If nth peripheral is attached, will display data
    - Document Mode - User clicks “Action button” to cycle through documents
        i. Document 1 -displays users first uploaded document, such as a pinout
        ii. Document n - displays users nth uploaded document, such as a schematic or datasheet
    - Camera mode - display view from camera so user can take picture with “action button”
    - Sensor mode - display basic sensor info, temp, noise, air quality

3. The user will be able to photographically document their project with a camera on the device and take voice notes.
4. The Geek Goggles will allow the user to receive alerts on the HUD. A safety alert will set off when the noise quality exceeds 90dBA, or when the air quality exceeds a general ppm of 35 $\mu g/m^3$.
5. The device will allow each user to connect the device to a phone or peripheral, with a transfer delay of at most 100ms between the device and the peripheral.
6. A user interface on a phone in the form of a web application where the user can upload documents, set timers and view notes.
7. The glasses will be attached comfortably to the user to support the weight of the device.
8. Optionally, depending on available time and project resources we would like to allow the user to use voice commands to change display modes.
9. Optionally, an Augmented reality overlay will be implemented so the user can see details such as voltage while looking at a specific peripheral or schematic based info when looking at a part of the circuit.