

Smart Glasses by Shaurya Dave (11)

Introduction

There inevitably arrives a moment in a young man's journey when the yearning for innovation beckons. I have adeptly curated my renowned Red Notebook, within which I've documented a compendium of my concepts spanning from 2014 to the present juncture. This tome holds profound significance for me, serving as an emblem of my enterprising ingenuity. The accomplishments woven into the tapestry of my formative years fill me with immense pride, and I am eager to extend an invitation to accompany me on a retrospective expedition through these transformative experiences.

Motivation for This Project

I have meticulously cultivated and nurtured a concept centered around the utilization of smart glasses within the context of a military setting. The genesis of this idea occurred during my time in Cold Lake, a pivotal moment while immersed in a rigorous 2-week General Training course. It was amidst these intense circumstances that I found myself meticulously loading the Daisy 880 rifle, with each lead bullet placed deliberately into the chamber by my hand. Safety protocols dictated that we await auditory confirmation from our instructors prior to discharging our firearms. However, with a ratio of 12 instructors to 12 trainees, the environment often grew cacophonous. While no mishaps transpired, the palpable concern of potential misinterpretation or, even more direly, accidental firing, galvanized me into action. The vision for these innovative glasses crystallized to mitigate disruptive interferences and to furnish operators with a comprehensive spectrum of pertinent information prior to engaging in action. This endeavor seeks to usher in a realm where untimely disturbances are minimized, while simultaneously enhancing the breadth of valuable insights accessible to the operator, thereby empowering them with holistic awareness before making critical decisions.

Design

Devoid of the nuanced wisdom borne from experiential growth, my younger self championed a principle of simplicity in design. The embryonic nature of my creative process precluded comprehensive contingency planning; a fact clearly mirrored in the rudimentary drawings I produced. The conceptualization of the glasses boiled down to a fundamental composition: the frame alongside a lens, poised for modification in accordance with the project's exigencies.

Thinking

While I cannot delve into the minutiae of my youthful musings, considering I was merely 11 years old at the inception of this endeavor, it's worth noting that my younger self, although not equipped to craft a definitive blueprint for the product, harbored a trove of imaginative design concepts and inventive ideas that have traversed the passage of time to find a place in the eventual product iteration.

In those formative days, my contemplations vacillated between incorporating an embedded speaker within the glasses or opting for an earpiece. In retrospection, the wisdom of my mature self-tilts in favor of the latter. The rationale underpinning this preference resides in the understanding that the

more functionalities are concentrated within a singular entity, the more concomitant complexity and intricacy of the technological architecture tend to burgeon. Thus, segregating the speaker allows for the possibility of achieving a more svelte frame design.

Among the more audacious notions that sprung from my youthful mind was the integration of a screen into the lenses themselves. Although the landscape of 2019 wasn't yet conducive to public access to such technologies, the present epoch bears witness to their fruition. Pondering means to project animations and information onto these lenses, my younger self devised two distinct methodologies. The first revolved around situating projectors atop the glasses, orchestrating the projection of data onto the lenses. The second approach entailed turning the lenses into the very screens themselves. Regrettably, the technology requisite for this idea was nascent at the time of conception. Moreover, the viability of the projector-based approach falters when confronted by the luminance of the sun, which renders it operational solely in dimly lit environs.

My temporal constraints in those early days acted as a deterrent to the full realization of my project. Nevertheless, my thought process extended beyond conventional paradigms, leading me to explore novel avenues for perception beyond the purview of cameras. The revelation surfaced in the form of reflections. Finding a parallel in cars. The automotive industry uses side mirrors to allow drivers to check their environment more effectively. Using the same idea I envisioned the incorporation of dual mirrors on the periphery of the glasses, strategically angled to expose lateral dimensions of the operator's surroundings, unveiled a novel modality. By embracing this concept, the operator's perceptual landscape widens, furnishing a wealth of environmental stimuli that, in turn, empowers more informed decision-making.