

Reflection: DeVILS Proposal Presentation

The problem that was chosen to be solved in this DeVILS Project was that of the everyday alarm clock. The everyday alarm clock is unreliable, abruptly loud, and has only one function that it performs poorly. Throughout these last few weeks, I developed the best design to meet the customers' needs. I developed a design that utilized a plastic shell with a rubber grip at the base, an LCD touchscreen as the clock face, a speaker, and an in-built projector. The alarm clock operates by allowing customers to program the desired wake-up time using the LCD touchscreen. The alarm clock will then go off at that time, as the projector slowly turns on and projects the screen onto the desired surface. This projector simulates a rising sun. At the same time, a customer-selected sound is playing, starting at a low volume and gradually increasing in volume, waking the customer progressively rather than abruptly. The customer, in order to turn off the alarm, will need to utilize the LCD touchscreen to complete the waking process. The customer can also have a display or image projected by the projector, giving them the daily weather report or a news article to start their day. I believe this will help the customer by providing them a stress-free and reliable way to wake up and start their day, leading to a more productive overall day, benefiting the customer. My presentation would better explain my design if it were paired with a live demonstration of the alarm clock. My customer would be intrigued by my presentation and consider purchasing this product.

The entrepreneurial mindset was a new concept to me and was a challenge. I originally conceived the solution for the alarm clock in my own mind, and that was far off from what I found the customer wanted, especially after our initial interviews, which led to the final design being influenced by the customer's needs. For this project, the archetypes that I tailored this design to were the corporate employee and the blue-collar worker. I achieved this by interviewing my fiancée, who is a marketing manager, and my father, who works in a gas processing plant. These two archetypes are the kind of people who would comprise the customer base for a product like this: individuals who need a reliable and efficient way to consistently wake up and arrive at work on time. This design benefits both the user and society by enabling users to wake up feeling refreshed and ready to be productive, providing an efficient and consistent way to start the day.

The design process was very efficient and far better than I initially believed it could be. By adopting an entrepreneurial mindset, establishing my archetype, and conducting interviews with potential customers, I gained a clear understanding of what people wanted. Then, by utilizing a few mockup designs and the decision matrix, I was able to easily pick the best design through a quantitative process that eliminated all but the best product for the customer. Once I had used the decision matrix and initiated my CAD process, I found

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that my mockup design precisely met the customer's needs, and I did not modify it. The biggest shock to me about the design process is how heavily it is geared toward the customer and how much effort is put into truly creating the customer's vision and meeting their needs.

I envision myself using this design process for all of my future projects based solely on how efficient and quick it is in finding the right design. This process sparked excitement about utilizing this system in everyday scenarios, both at work and at home. I could easily apply this process in choosing a car or a house. I could use it in my work when developing a template for rosters or inventory sheets. Learning this process has dramatically increased my excitement for my future learning in engineering, and I look forward to what is to come. I am interested in exploring more large-scale applications of this that could benefit the lives of everyday people.