EDSGN 100

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Design Project 1

Design project 1 tasked us with developing a mug that could be used for handicapped people, specifically targeted at customers with one thumb and one other finger. We used several techniques to help think of different concepts. These concepts were then ranked and put into an AHP table where the top concept was decided. The concept selection is found in a detailed report of the project, found also on my personal webpage. Ultimately, the concept that was chosen involved four rings on one end that could be used to fit any of the customer's fingers on one side, and a thumb ring on the opposite side. A lid accompanied the design to protect the customers in the event of spills.

Design Project 2

A project for Lockheed Martin, we were given the task of developing an elevator for Unmanned Aerial Vehicles (UAV) that could sustain better shocks than the devices currently in use. Again, concept tables and AHP tables were used in order to decide the concept (A spring-like device that could efficiently absorb shock and retain the lightweight nature of the UAV). After the concept was decided, it was imperative to develop a material selection that could maximize the reusability of the elevator. That material was duralumin, an aluminum copper alloy that is extremely lightweight and durable.