Universal Design Key Fob: Hand Sketches, Modeling Foam, Solidworks, and Keyshot

When trying to decide upon a product to convert to universal design, I began taking note of the daily tasks in my life that were easy for me to accomplish (having no disabilities), but that might be difficult to accomplish for an elderly or handicapped individual. It occurred to me that simply locking my front door when I leave for studio every morning is a task that most of us take for granted. However, for an elderly or handicapped individual, turning a small key can be a time consuming and even painful process.

Moving forward in the process, I researched the current market space and found that there are no products that eliminate the need for a handicapped individual to manipulate a set of keys. Therefore, I created numerous preliminary sketches of key fobs to brainstorm possible solutions. Once I had settled on plausible product designs, I modeled them out of foam and presented them to a handicapped colleague to test their functionality.

Based upon the results of this testing, I developed the final solution to the project. This universal design provides a helpful solution by having a large, soft touch surface for the user to grip, easy-to-press buttons with color coding labels, and offers a four-key capacity in a single key fob. The individual keys can be swapped out in the exact same manner that current key fobs are, making it as simple as grafting a new key at a hardware store. The user has the option to apply the color coding labels for simpler identification of keys and also has the ability to attach the key fob to a lanyard or additional key chain.