

## **Executive Summary**

The Memento Bowl is a project underneath the product competition, in which students were told to design and create a minimum viable product. Specifically, this system was built to act as a reminder for the end user, should they leave their home without part of their everyday carry. The problem this is most closely related to is known as the doorway effect: a mental refresh/buffer upon entering a new environment, e.g. when walking through a doorway. By logging a few of the more frequently used items one could leave by their door, the Memento Bowl can remind the user which item specifically is left behind after disconnecting from the network.

The team was under the product competition section of the senior capstone class and was not given a project to begin with. It was the first step as a team to decide what project to create that relates to the topic of market research. Looking into the many options we can undertake, the team decided on creating a system that can remind people of their personal belongings before leaving their homes. There was no information related to the product our group decided to build and that is where the market research side of the project came into play. Two anonymous surveys were conducted to understand what the general public thought of our product and what features they would like to see. A variety of answers were recorded and the creation of our system was influenced by these two surveys. Before conducting the surveys, our team had the idea of the system being a tray containing LEDs, while using bluetooth to connect to mobile phones to receive notifications. After receiving the survey responses, the majority preferred having the enclosure of the system be a bowl and have notifications be displayed on their mobile phones. The team had challenging obstacles along the way but managed to find solutions. An example being using WIFI of the microcontroller used in the system to connect to mobile phones. It allowed for easier communication between the system and users devices. During the development of the system, we noticed that the system can be approached differently to have an efficient solution to remind people of their personal belongings. These solutions can be found in the project document available in the project showcase webpage. The rest of our group's timeline for project completion can also be found at the bottom of the document.

Throughout the 9 month process of building the Memento Bowl, much insight was gained in how to more effectively produce results or accomplish tasks as a team. By far, the most vital aspect of teamwork is frequent and clear communication with every other member. Stress and confusion from losing a group member unexpectedly could have been better mitigated had everyone been properly informed. Other minor obstacles or bumps in the road can be dealt with accordingly, as long as the other members are aware of everyone's individual requisites for design integration. The third and equally important lesson to be extrapolated from the organized chaos of our project is to be flexible and adaptable. Scope is going to change as the project progresses and everyone needs to be ready to figure out alternatives or alter their work as needed to best mesh with the group.

## PROJECT TIMELINE

PROJECT TITLE	Product Competition	GROUP	Group 31
PROJECT MEMBERS	Jake Statz, Jaxon Young, Yovany Lopez Hernandez, Jacob Dallman	DATE	6/12/23

