Emmanuel Ogunjirin
Sociotechnical Synthesis

In today's world, the smart home market has been growing with many of the technical companies like Meta, Amazon, Apple, and Google investing heavily into the products and services of the given market. However, even with this increase in interest, the smart home services have not been widely accepted. Previous research has shown that reason for this is due to the high price limit, limited demand, and long replacement cycles of these devices. The high cost to get started in the smart home technology has been a deterrent and one of the largest barriers to the growth of the system. This combined with the lack of technology and resources to establish a full infrastructure of a smart home have contributed further to the dwindle in interest. My research paper aims to look at the adoption, integration, and possible repercussions of home automation. An investigation into which features affects a user, how these smart devices are leveraged for the services they provide. The purpose of this paper is to look at the potential barriers present in the adoption of smart home. By looking into previous literature on the topic, analysis on the acceptance or lack thereof can be seen. With this look, my technical capstone was focused on designing a smart fish tank, which aims to connect to the general smart home infrastructure but limiting the cost of entry for these devices.

For the project, we did achieve what we were aiming to do. The smart fish tank was proven to work and had limited cost to make the device. With the team we had to work fine, it took some time to learn where our strength and weaknesses were in order to accommodate for it. We also had to overcome a lot of adversities most notably the supply chain shortage of items that we desperately needed to make our devices work. I would like to thank Professor Powell for his guidance in everything he did to help us with our project.