Viplav Dodeja EGR 201 T & Th @ 10:30 10 December 2019 Course Reflection

## Course Reflection

Overall, I feel like this class has greatly impacted me and taught me many things about being an engineer. We had a variety of projects and an even larger variety of assignments. These assignments showed me how to follow the engineering process to produce a solid final product. For example, in the Product Archaeology Mini-Project, we performed a function decomposition, life cycle analysis, design for assembly, and design recommendations, amongst other assignments as well. These assignments showed me how companies would really analyze their products and use that data to improve that product itself or for future releases. These were all new viewpoints to me since I usually take things apart to simply see how they work. This was the first time I actually thought about it a step further than that. In the Design for Energy & Sustainability Mini-Project, we were assigned to complete needs identification, problem definition, concept generation, etc. These allowed me to use problem-solving skills in the real world, and attempt to solve a real-world issue. This helped in opening my eyes to the possibilities of what I can do after graduation. Personally, the last two projects we did were my favorite. I feel like they engaged me the most and allowed me to learn the most. Using Arduino for the door alarm is a very current project, that uses technology in ways the modern world is moving to. Arduino is a very big component of IOT(Internet of Things) which is slowly taking over the world. Everyone wants their lights connected to their voice, and their thermostat controls on their phone, etc. IOT is the way to make that happen. Google is already using this to connect its products together, and the Door Alarm Mini-Project opened that door for us. Additionally, I have used Arduino for various home projects, and it was very interesting challenging my known Arduino experience to create these more complicated projects. The Final Project was also very educational as we worked with an actual client. This allowed me to learn about how to troubleshoot issues that may arise during interaction with a client. For example, we were having issues with communicating with Mrs. Frank via email. As a result, we were unable

to see any emails from her. Unfortunately, we were unable to solve this through Gmail, so we ended up communicating by text. Although this was a small issue that was easily fixable, it served to demonstrate that anything can go wrong and be ready for it. I felt like the part I least liked about this course was the sheer amount of small assignments. Although they had a purpose and ultimately helped me to learn more, I feel like they limited creativity and took too much time away from the actual projects, leaving me unsatisfied with my final product. Sometimes I considered simply not completing the assignments so that I can focus on the projects, however, I did not want to sacrifice my grade. I learned that being an engineer is a lot more than simply designing and building things that you find interesting. You need to comply with clients, troubleshoot, expense, and much more. As an engineer, sometimes you may disagree with what a client wants, or know there's a better way to do it, yet you will still need to build the product based on what you have been asked to create. Although this may seem like negative aspects that I have found, it actually made me want to be an engineer more. I want to continue to challenge myself and force myself to search for out of the box solutions to issues that people want to be solved. I feel like if I was to take this class again, I would focus more on bigger projects, and only do the assignments to understand the lesson behind them. Although this may leave me with a lower grade, I will be happy with the final products that I produce and can be proud of work that will be displayed with my name on it.