

# Project Summary

## Gareth Miller and Garrett Young

For this project we were tasked with creating an electronic pet door that consistently opens without human interaction and allows for customizable lock times. With these aspects of the project in mind our first goal was planning out the microcontroller and code that would connect with all of the peripherals that we would need in the system. We were most concerned with how the final version of the system would be put together and function, so many of our design decisions with the initial set of blocks were made with the completed system in mind. As we composed the block diagram, we put emphasis on time management and avoiding complications with the development of each block. One example of this is the clock, which we implemented using seven segment displays.

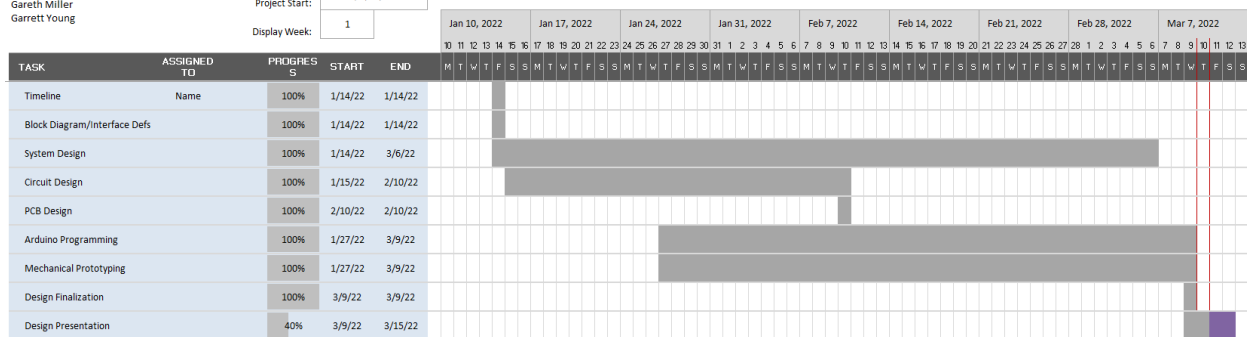
### Automatic Electronic Pet Door

ECE 342 - Junior Design 2 Winter 2022

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Project Start: Fri, 1/14/2022  
Display Week: 1

SIMPLE GANTT CHART by Vertex42.com  
<https://www.vertex42.com/ExcelTemplates/simple-gantt-chart.html>



During the course of the term, we had to shift some of our focus once the scope of our project was reduced. We had constructed each of the blocks that would be necessary for the project however their functionality in a united system took more effort than we originally anticipated. The mechanical parts of the project proved to be especially time consuming, as all of our work prior to the construction of the door only involved code and the circuits. At the beginning of the project we had varying ideas on the mechanism that we would use to lift the door, but ended up settling on a pulley system.

The main lesson that we learned from this project is that not every goal can be achieved according to the original plan, and being able to adapt is an important element for these kinds of projects. As we discovered blocks to be underperforming, we needed to compromise so we could finish the project on time. The biggest accomplishment of the entire project was piecing together all of the blocks towards the finale of the project, and quickly troubleshooting the resulting issues.