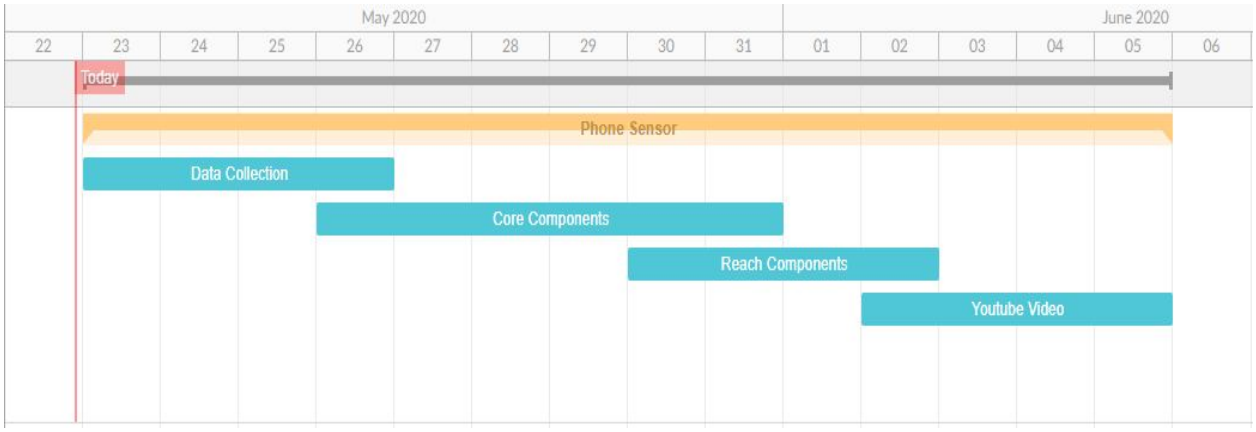
Project Proposal

Project Description	This project strives to collect data from sensors in an app and present it in a visually appealing and user-friendly method. This data is meant to be accessed by everyone, not just a professional data analyzer. The main goal is to create data that can be easily viewed, read, and understood by the user. The project also strives to implement certain reach components that will further enhance the user experience. The project will contain two sensors, including the acceleration and position sensors. The goal is to create an app that will display this raw data from the sensors through tables and graphs.
General Description	Everyone is planning to collect data from the acceleration and position sensors. We will upload this data to a public ThingSpeak channel that all the members can access. The plan is to have two apps in the app designer (one for the acceleration sensor data and one for the position sensor data). In the app designer, we will include a button to open sensor data and a button to create a CSV file for the data. The project also needs to be able to store and display the data information in a table, and display the data information on a graph. The graph needs to be clearly labeled and very readable to the user.
Reach & Special Feature	In ThingSpeak, we will portray means and standard deviations (for both the acceleration and position) as a table. We are planning to create a graph with a position versus time graph with longitude and latitude. We will also be plotting acceleration versus time on a graph. Another

	interesting idea would be to have a live data collection of speed. If possible, and if time allows, another idea would be to have a map that can actually pinpoint different positions and locations.
Timeline	 - By Tuesday, May 26th, collect sensor data on Matlab app - By Sunday, May 31st, have all the core components finished (including both the data collection and app designer steps) - By Monday, June 2nd, have most, if not all, of the reach components completed. - By Wednesday, June 3rd, have a fully completed project and a completed video. Aiming to submit everything by Wednesday night.
Member Roles	Member 1: In the core components, display the processed data using tables and making sure the format is correct. For the reach components, portray the acceleration versus time graph. Member 2: In the core components, code and plot the points on the graphs in the app designer. For the reach components, plot the position versus time graph. Member 3: In the core components, write program code for the CSV file and Load Data buttons. In the reach components, complete and present the data analysis (mean and standard deviations) for acceleration and position through tables.

	Note: In the proposal we submitted, we put our actual names instead of "Member 1" , I just wanted to preserve the privacy of our teammate All the members will be collecting data and contributing equally to the youtube video.
Video	For the video, we can record a zoom meeting and have each member present the meeting. Each member will then explain each part of the project that they contributed to. In the video, the members will also need to explain how the program works with clarity and simplicity. We need to make sure to show the program actually working live. In total, the video needs to be between five to ten minutes. The video will be uploaded to youtube and submitted.