# Overview/Roadmap

**Problem Statement**

The quality of FDP Brakes products is high tier but the ability to generate in-house reports that accurately represent that level of excellence is lacking. This causes FDP Brakes to outsource their reporting costing them time, money, and autonomy.

**Objective**

Create an in-house program/system that can generate different SAE Standard reports.

**Deliverables**

* Program can take inputted data and auto compile into a report
  + Program can generate plots/graphs from inputted data
* Report looks clean and professional

**Vision**

This problem is rooted in data science and report generation. Due to the nature of the problem, Python is an optimal tool to provide solutions. My vision is to create a program that an employee can use to simply input a few data points (Dyno excel sheet, Customer Test Report #, Test Date, etc) and have the program take those values and generate a report with all necessary components.

**Methods/Tools**

* Python
* HTML
* CSS

**Details on Proposed Work**

*Data Analysis*

Python will be used to analyze the data from the dyno by reading in the excel sheet that the dyno creates. The data can be manipulated using popular data science modules in python called Pandas, Matplotlib, and Seaborn. These allow the abilities to manipulate data and create professional grade graphs/plots.

*Report Generation*

Python and HTML will be used to generate the report. Using HTML, the structure of the report will be made and will showcase the test data. Python will be used to plug in these data points and also convert the HTML into a PDF format

*Report Aesthetics*

CSS will be used to give the report its professional look. HTML and CSS are linked as one provides the structure and content and the other provides the look and feel.