

**Advisors: Randy Geiger    Client: Randy Geiger**

**Members (roles): Kelly McConville, Xiayang Sun, Yinkun Peng**

**Project Title: Smart fuel tank sensor**

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## Weekly Summary

There was 1 meeting during last week. We found 3 methods which would meet the design project requirements. Each one of us focused on one method respectively. Yinkun did research on the load cell method; Kelly did research on capacitance method; I did research on thumper method. All of us also thought about the budget and prototype of the methods.

## Meeting notes:

How to implement the capacitance method, load method, and thumper method respectively.

What elements do we need for each method

How to measure the capacitance between the two sides of walls of fuel tank when using capacitance method

How to measure the weight of fuel inside tank when using load method

How to plot the spectrum of fourier transform when using thumper method

## Group Meeting with Advisors

**Duration: 50 min**

**Members Present: All members**

**Purpose and Goals:** During the meeting, we shared our findings and our ideas about prototypes with our advisor. Our goal is to determine the final method which was implemented to our project

**Achievements:** Advisor Geiger gave us some suggestion on implementing. When talking about capacitance method, he provided some cases on measuring the capacitance between the two sides of walls of fuel tank; when referring to load method, he gave some suggestions on measure the weight of fuel inside the tank using loads in different shapes.

## Pending issues

1. Find a final method to our object.
2. Figure out the components that will be used in building our project

## Plans for next week

For next week we are going to determine our final method to our design, and determine how to implement our project.

## Individual Contributions(this week)

Kelly: doing researches (6 hours)

Xiayang: doing researches (6 hours)

Yinkun: doing researches (6 hours)

## Total contributions for the project

We got several methods which seems valid in our projects. We analyzed the implementation and budget for each of the method.