Senior Design: Weekly Progress Report

Team 3: Micheal Frith, David Larribas, Devin Moore, Benjamin Smith

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1 GROUP TIME SYNOPSIS

Current Group Leader: Benjamin Smith

1.1 Team efforts and overall status

THE primary objective of the first week was to solidify our groups societal problem selection. Members of the group voiced concern about a topic we had chosen over the summer. The root concern was lack of interest in the hardware associated with the project idea. In deference to their concern and in consideration of the three other groups researching highway safety we, as a group, chose to switch to health and wellness. This topic has no shortage of peer reviewed sources and will yield opportunities for all group members to show their talents and interests. We have concretely settled on a topic, there will be no issue submitting the problem statement on time.

The other significant expenditure of work hours came from the setup of team document standards and collaborative tools. LaTeX templates were developed for weekly reports and an IEEE standard report with a title page as described in week twos lecture notes. These templates are maintained in a group Github repository which can be found here.

TABLE 1
Weekly Team Meetings

Topic	Hours
Tuesday Lab: discussing the new topic	2.0
Friday: societal issue paper outline	5.0
Monday: Planning Session	8.0

1.2 Monday Morning Planning Session

A "software clinic" was the first agenda item on Monday. We introduced the group to tools necessary LaTeX, GitHub, TeamGantt, and Mumble. We discussed an agenda for week two and assessed team member availability and bandwidth for the week to come. After planning, we reviewed the previous week's assignments and drafted the Weekly Report. The first draft of our elevator pitch was discussed as a group and written down for the first time. The remainder of the day was used to finish the Problem Statement assignment.

1.3 discussing the new topic

Given the gravity of choosing a 9-month long project we sat down as a group and spent some time to make sure we have an understanding of each others expectations. It broke down roughly on the CPE or EEE line. Computer engineers were looking for digital control and FPGA based designs. The electrical engineers were looking for power electronics design and electric control.

1.4 Friday: societal issue paper outline

We took a large amount of time to create a proper outline of the problem statement before the weekend. Forming the paper outline gave the group a chance to further synchronize their expectations of the project and what kind of solution we can offer. We began to research issues which effect Health and Wellness in modern society to provide the framework for our paper. The small amount of research gave the group direction and helped them be more efficacious over the weekend.

2 INDIVIDUAL ACTIVITY SYNOPSIS

2.1 Micheal Frith

Synopsis of past week's work

THIS week I researched a new societal problem as we have scrapped the project we had chosen this summer. I contributed articles and research on physical activity and its effect on physical and mental health. I then researched possible solutions to our societal problem. This guided our group to our proposed solution of an electrically assisted bicycle. I aided in the creation of our elevator pitch. I installed and setup our group collaborative tools.

TABLE 2
Micheal Frith: Tasks Assigned - Last Week

Task	Hours Worked	Status
Decide Problem Topic	5.0	100%
Societal Problem Research	6.0	100%
Set up Collaborative Tools	1.0	100%
Writing Problem Statement paper	4.0	90%
Weekly Report Writeup	2.0	100%

TABLE 3
Micheal Frith: Tasks Assigned - Next Week

Task	Hours Worked	Status
Researching Solutions	3.0	100%
Researching Chosen Solution	5.0	100%
Creating Feature List	4.0	100%
Researching Implementation	2.0	20%
Setting up Schedule/TeamGantt	2.0	100%
Creating Design Contract	4.0	100%

Special Problems or other reporting

I'm learning about LATEX as I go along here, using our template to help as we go. I've encountered errors with Github trying to check in my portion of this weekly report.

2.2 David Larribas

Synopsis of past week's work

For the first week of the project, I had to learn the programs and websites we were going to be utilizing. This process is going to be ongoing over the next couple of weeks until I become more fluent with these programs. I also participated in the group brainstorming sessions. It was during these sessions that we came up with our societal problem of physical inactivity. I was responsible for researching and writing up the physical and mental detriments of physical inactivity and the benefits that can occur from being physically active. This is what the majority of my time was put into.

TABLE 4
David Larribas: Tasks Assigned - Last Week

Task	Hours Worked	Status
Decide Problem Topic	5.0	100%
Societal Problem Research	9.0	100%
Set up Collaborative Tools	1.0	100%
Writing Problem Statement Paper	5.0	90%
Writing Weekly Report	2.0	100%

TABLE 5
David Larribas: Tasks Assigned - Next Week

Task	Hours Worked	Status
Researching Solutions	3.0	100%
Researching Chosen Solution	5.0	100%
Creating Feature List	4.0	100%
Researching Implementation	2.0	20%
Setting up Schedule/TeamGantt	2.0	100%
Creating Design Contract	4.0	100%

Special Problems or other reporting

The biggest problem I ran into was learning to navigate and operate five different programs and websites. This became difficult because I still had to keep up with my responsibilities with the problem statement. The members of my group who had previous experience with these programs greatly facilitated the learning process.

2.3 Devin Moore

Synopsis of past week's work

I started off the week discussing possible societal problems with the group while I researched different possible problems and potential solutions. After arriving at an accepted societal problem, I began searching for articles with relevant research. I spent a fair amount of time setting up LaTeXand associated templates. I helped set up GitHub for keeping track of changes and easy collaboration through repositories. I helped set up our Gantt chart on the TeamGantt website. I wrote down rough body paragraphs for the Societal Problem assignment.

TABLE 6
Devin Moore: Tasks Assigned - Last Week

Task	Hours Worked	Status
Decide Problem Topic	5.0	100%
Societal Problem Research	9.0	100%
Set up Collaborative Tools	2.0	100%
Helping With GitHub	2.0	100%
Writing Problem Statement Paper	10.0	90%
Writing Weekly Report	2.0	100%

TABLE 7
Devin Moore: Tasks Assigned - Next Week

Task	Hours Worked	Status
Researching Solutions	3.0	100%
Researching Chosen Solution	5.0	100%
Creating Feature List	4.0	100%
Researching Implementation	2.0	20%
Setting up Schedule/TeamGantt	2.0	100%
Creating Design Contract	4.0	100%

Special Problems or other reporting

I spent a lot of time this week getting familiar with the programs and services we will be using throughout the project. I set up multiple Google Docs for collaborating with brainstorming and writing rough drafts. I installed Mumble, a voice chat software, for easy communication with the team. Familiarized myself with the

2.4 Ben Smith

Synopsis of past week's work

I spent a large amount of time developing the procedures that would allow the group to work together effectively. The procedures the group decided upon leverage the LaTeX typesetting language and GitHub for revision control. I developed two Latex templates for the group to use; one for weekly reports and another for large documents that includes a title page. Both of these documents adhere to the IEEE standard.

The other significant time expenditure came from the Societal Problem assignment. The research

TABLE 8
Ben Smith: Tasks Assigned - Last Week

Task	Hours Worked	Status
Decide Problem Topic	5.0	100%
Societal Problem Research	9.0	100%
Set up Collaborative Tools	2.0	100%
LaTeX Templates	5.0	100%
GitHub Repository	2.0	100%
Writing Problem Statement	10.0	90 %
Writing Weekly Report	3.0	100%

TABLE 9
Ben Smith: Tasks Assigned - Next Week

Task	Hours Planned	Status
Researching Solutions	3.0	100%
Researching Chosen Solution	5.0	100%
Creating Feature List	4.0	100%
Researching Implementation	2.0	20%
Setting up Schedule/TeamGantt	2.0	100%
Creating Design Contract	4.0	100%

Special Problems or other reporting

The group spent a significant amount of time in the first week preparing collaborative tools. I feel this time was well spent; we will be able to take on new tasks in an organized and efficient manner.