

sddec18-22 Automower (Autonomous Lawn Mower)

Weekly Report #1

Reporting Period: 01/31/18 - 02/07/18

Team Members

Sam Tinklenberg - Team Leader

Andi Li - Meeting Facilitator/Software Dev

Bryton Hayes - Test Engineer

Grant Duncan - Software Lead

Joel Seaser - Hardware Lead

Summary of Weekly Report

We did not have too much to do in the past week. We have been waiting to meet with our client to confirm our budget. The budget will affect most of our design decisions. So we began coming up with different ideas at different price points. We also worked on the class deliverables such as the project plan and team website. We had a meeting with our client on Tuesday, so we should be set to go. Our client seemed really excited about our research progress, and we have a much better understanding of his expectations for the project.

Previous Week Tasks Completed

General Tasks:

- Project Plan v1
 - We started filling out the project plan template. Lot's of the sections we are unable to fill out until we make critical design decisions. Most of it is filled out but some sections are lacking specifics. It really helped us prepare a proposal for our client by determining our functional requirements and constraints.
- Team Website
 - Added our team members, roles, and pictures. Need each team member to add their interests on their bio.
- Prepare for Client meeting.
 - Each team member was assigned a specific project component to research and have ready to present for Ryan.

Specific Tasks:

- Client meeting
 - Andi: Market Data
 - Bryton: Build our own mower.
 - Joel: Additions we can make to the mower if we build our own.
 - Grant: 3D printed mower.

Tasks For the Upcoming Week

General Tasks:

- Finish revising Project Plan.
- Begin work on Design Document.

Specific Tasks:

- Design Decisions
 - We will need to meet and discuss what we want to do now that we have a budget.
 - Make decisions on:
 - Drive train
 - 3D print vs. Buying rc kit vs. combination of both.
 - Microcontrollers
 - Mapping tool
- This is a short list right now. Once we make decisions on our plan, then this list will become much longer. We need to meet as a group to determine our path forward.

Division of Work

Team Member	Contributions	Hours this week	Total Hours
Sam Tinklenberg	Team Website, Project Plan	3	3
Andi Li	Project Plan, Market data	3	3
Bryton Hayes	Project Plan, Component options.	4	4
Grant Duncan	3D print option for client meeting	3	3
Joel Seaser	RC kit option for client meeting.	3	3

Summary of Weekly Advisor Meeting

We set up weekly meetings with Dr. Jones every Thursday from 2:30 to 3. This past week, Dr. Jones helped us out by answering a lot of our questions about the general course of action for this project. He also gave us realistic goals to achieve in areas such as production cost and material choice. During this meetings Jones also provided us information about the resources that we can use during our project such as 3-D printing and the use of an acrylic cutter. Another issue which led to conflict in our group meeting was the size of our mower.

Jones highly recommended making a cheaper mower because based on the market research most companies offered big and expensive mowers, so making a small and affordable mower makes us unique. Moving the mower was also another factor as moving a big mower causes problems. Overall, Jones provided lots of helpful ideas and guided us towards a more realistic project.