

Week XII Report

Advisor(s): Gary Tuttle

Client: NASA Marshall Space Flight Center

Members (Roles): **Isaac Johns**-Team Communicator, **Ryan Bissett**-Team Communicator, **Tom Henry**-Webmaster, **Luke Dahlman**-Team Leader, **Anh Ho**-Key Concept Holder, **Dustin Pierce**-Key Concept Holder, **Antjuan Buffett**

Project Title: Remote Deployment Circuit and Mechanism for Lightweight CubeSat Solar Panels

Weekly Summary

This week we were all gone for Thanksgiving break, so almost all of our progress was what we did individually over the break. Our goals were to rewrite our individual parts for the design document to reflect the new design we've been working with and to pick the parts we want to order for the prototype so we can order them before the semester ends.

Meeting Notes

From our weekly meeting:

- Our parts list is finalized, with everyone posting them on the cloud drive.
- Everyone has their sections of the new design document done.
- We will be ordering our parts before breaks so they can be delivered to Professor Tuttle's office over Winter break.
- We will be getting a sample of the substrate the solar panels are printed on so we can test its strength, but it hasn't been shipped out yet. It will also be delivered to Tuttle's office.
- We will be meeting again over the weekend and on Monday next week to practice for our presentation, which will be on Wednesday 12/10 at 11AM.
- John Carr responded to our emails and said our new design is fine as long as we can prove it works, so we can continue with it in good confidence the client will be happy with it.

12/1/2014 Weekly Group Meeting to Update & Decide Course of Action

Duration: 1 hr **Members Present:** Tom Henry, Luke Dahlman, Ryan Bissett, Dustin Pierce, Anh Ho

Purpose and Goals: The purpose of this meeting was to make sure everyone got their parts of the design document done and knows what he has to do going forward for the rest of the semester up until we do our presentation. With the semester ending soon everyone needs to be on the same page and we need to have our choices finalized so we are on track for building our prototype next semester.

Achievements

In this meeting we were able to make sure everyone has either done their part or knew they had to finish it before midnight the same day. We made sure we had our parts list finalized and made sure that we knew when we'd be meeting to prepare for our presentation.

Pending Issues

- Need to finish and submit our second project plan.

Plans for Next Week

Next week will be our presentation week, so most of the work done then will be preparation for that. Making sure our presentation is done, is error free, and we are well rehearsed in it are our biggest priorities right now with most of the design work done.

Individual Contributions This Week

- Luke: Finalizing portions of the Design Document, specifically the software/hardware specifications, Finalizing the parts ordering for the PLC, Developing a test plan for the design circuit
- Isaac: Finding Silicone Wheels, Writing Design Document Portion
- Ryan: Weekly Meeting 12/1/14, Rewriting System Description, Spring Testing Document, Writing Weekly Report
- Tom: Training to use ECpE Shop, Monday / Wednesday meetings, Working on design document, Procuring solenoids for testing
- Dustin: Weekly meeting to discuss current and future plans for our project. This includes research for bearings and lubricants. This is also for rewriting the design document portion that I was assigned. I also reworked the schedule of what we have done and what we will do.
- Anh: I reviewed the previous design document (1 hour) to examine and add any new specifications to the new design and also to resizing CAD drawings and assembly (7 hours).
- Antjuan: Project revision

Total Contributions for this Project

3 – 1 hour meetings

- Luke: 9 hrs
- Isaac: 6.5 hrs
- Ryan: 5 hrs
- Tom: 8 hrs
- Dustin: 9 hrs
- Anh: 8 hrs
- Antjuan: 1 hrs

