

1. Project Title and Number

“Autonomous Underwater Vehicle (UAV) for Scientific Applications”

2. Week and Date Coverage

Weekly Progress Report for Week 3 of Fall 2013 Quarter – coverage from Week 0 to Week 3

3. Your Name

Joshua Morales

4. This week's plan

- Research “green” grants on campus through ue.ucr.edu
- Look up CAD software for 80-20 bodyframe
- Initiate and complete parts list and corresponding rough budget
- Finalize concrete project objectives/plans
- Create System Block Diagram (SBD)

5. Work Content and Conclusions (body)

The first two weeks of this quarter has been spent hammering out final ideas for a senior design project since our group really formed at the very end of summer/beginning of the quarter. We were not fortunate enough to form at the end of the spring quarter and start working on all of the administrative ideas during the summer like some other groups did.

I missed a lab during week 2 because I was preparing for the GRE. I reported my absence to Dr. Chomko after the missed lab. Going forward all deviations from the schedule will be reported in advance when possible. We have created a Git repository for revision control, track research, data sheets, and progress reports. Every week we have been meeting for lunch at least twice, and have created an e-mail chain for addition communication.

Week 1:

- Formed the group and got the PCB etcher project approved by Dr. Chomko.
- Started block diagramming the system of the PCB etcher.

Week 2:

- Met with the group for lunch to discuss different system requirement.
- Brainstormed different ideas for a design project because the etcher idea has a high risk of failure and doesn't have much excitement factor.

Week 3:

- After brainstorming and speaking with Dr. Chomko, we have decided on the UAV.
- The purpose of the system is to take measurements (Temperature to start with) of the water. It will autonomously move around, avoiding collisions, and report back temperatures via wireless communication to a substation.
- High Level Communication idea – Communicate to a floating buoy. The buoy will then communicate wirelessly to a computer on land.
- Going forward tasks before next meeting.
- Josh: Research IMU.
- Andrew: Research chassis possibilities.
- Justin: Research funding. (Possible green project grant money.)

6. Plans for the following week

- Finalize budget (Tentatively \$300/person = \$900)
- Write possible proposal/set-up meetings
- Streamline SBD
- Begin purchasing parts for project
- Start physically building project