***EE 492 WEEKLY REPORT 10 Date: 4/24/17-4/30/17***

***Group number: 24***

***Project title: Ultrasound Water Purification***

***Client &/Advisor: Prof Bigelow***

***Team Members/Role:***

***Jacob Bernhard/Team leader***

***Yuhao Fu/Team Communication Leader***

***Parker Oltrogge/Team Webmaster***

***Subin Mao/Team Key Concept Holder***

***Xiyuan Wang/Team member***

***Tao Wu/ Team member***

* **Weekly Summary**

We ran rou system it works but still have small things to be fixed.testing group Resolved multiple issues with printed circuit boards including(floating ground, errors in equivalent resistance causing uncalculated voltage drops, scrapping failed PH circuit design). Redesigned, built and tested brand new PH circuit using knowledge gained from failed PCB. Recalibrated turbidity to final turbidity testing box design. Fixed numerous issues with final code.

* **Past week accomplishments (please describe as what was done, by whom, when)**
* Jacob Bernhard: ran the test
* Yuhao Fu: ran the test
* Parker Oltrogge: Crunch time. Resolved multiple issues with printed circuit boards including(floating ground, errors in equivalent resistance causing uncalculated voltage drops, scrapping failed PH circuit design). Redesigned, built and tested brand new PH circuit using knowledge gained from failed PCB. Recalibrated turbidity to final turbidity testing box design. Fixed numerous issues with final code.
* Subin Mao: built and tested brand new PH circuit using knowledge gained from failed PCB. Recalibrated turbidity to final turbidity testing box design. Fixed numerous issues with final code.
* Xiyuan Wang: Test the whole circuit, write poster and ppt to finalize our project.
* Tao Wu: already done the test but still has some errors need to be fixed
* **Individual contributions**

|  |  |  |  |
| --- | --- | --- | --- |
| **NAME** | **Individual Contributions** | **Hours this week** | **HOURS**  **cumulative** |
| **Jacob Bernhard** | Test the whole system | 15 | 39 |
| **Yuhao**  **Fu** | Test the whole system | 15 | 39.5 |
| **Parker Oltrogge** | Soldered PCBs, redesigned built and tested new PH sensor, finished code for final product(with computer for display) | 12 | 37.5 |
| **Subin Mao** | Soldered pcbs and test the boards, make the powerpoint for presentation | 14.5 | 43 |
| **Xiyuan Wang** | Test the whole circuit, write poster and ppt to finalize our project. | 11 | 32 |
| **Tao**  **Wu** | Do the experiment in the lab | 15 | 36 |

* **Plan for coming week**
* Jacob Bernhard: standing wave test was kinda failed but our purification system works.
* Yuhao Fu: could still test our device, and cultural bacterias in the lab as future use.
* Parker Oltrogge: Things not done that I personally feel I failed: did not eradicate need for computer, I have many excuses but in the end the LED screen failed; did not test the final product in differing temperatures to see how it would hold up, in things like 40C and 0C. Final code could be much clearer, the code is not robust at all. there are so many levels the code fails on; professionality, deliverability, readability and versatility. Should have scrapped “homemade” temperature sensor after it failed on second iteration, single largest time sink that affected other sensors. I feel pretty bad about the lack of assistance I was on deliverables this project(I worked 6:45 to midnight every deliverable deadline). Best thing our group did was split into 2 parts so that we could actually split work effectively, there may have been too many people on the circuit team for the work load we (testing design team) had.
* Subin Mao: some part of circuit did not work perfectly, we still need to adjust the circuit to make it work nicely.
* Xiyuan Wang: Should have scrapped “homemade” temperature sensor after it failed on second iteration, single largest time sink that affected other sensors.
* Tao Wu: could still test our device, and cultural bacterias in the lab as future use.
* **Summary of weekly advisor meeting**

We could still test our system for future use.