EE 494 Spring 2023 Professor Dennis Hite

Weekly Progress Report: #11 13 April, 2023

Project: C.E.L.P. Gardens

Team: Cole Moore, Eric Messer, Luke Barber, Philip Entrekin

Work Completed

The team has completed the design review presentation. This has given us some more information on what to improve upon as we move forward on the project. We have finished module assembly and are testing full module functionality.

Current Completed Deliverables:

- Team Bio's 1/15/23
- Project Summary 1/24/23
- Weekly Progress Report #10 4/06/23
- Proposal Presentation 2/10/23
- Proposal Written Report 2/10/23
- Design Review 3/10/23

Work in Progress

The software team is finishing up fixing bugs for the final module. We are currently finishing final module testing and should have it in time for the final report. Also, all of the deliverables are yet to be finished and are mostly done.

Milestones We are Working Towards

- Eliminating software bugs.
- Finishing full module testing.
- Final Deliverables.

Challenges and Changes

We had some trouble with space with the module assembly. We ended up making minor changes internally to accommodate for wire sizes. We still have some software bugs with the GUI and module control, we are currently fixing these issues.

Project Cost

Bill of Materials

C.E.L.P. Gardens	Part Number	Part Description	Retail Price	Vendor	
Hardware	ESP32-S3-DevKitC-1-N8 R8	Microcontroller	\$15.00	mouser.com	
	DHTII	Temp./Humidity Sensor	\$3.15	amazon.com	
	B07SYBSHGX	Moisture Sensor	\$2.00	amazon.com	
	ALAMSCN	Pump	\$2.85	amazon.com	
	2N2222A-1726	BJT	\$0.03	amazon.com	
	Zulkit Waterproof	Device Case	\$4.86	amazon.com	
	SCYarn	Breathable Fabric	\$0.20	amazon.com	
	Alkaline	4x AA Batteries	\$1.81	amazon.com	
	B0858Y4JPL	Battery Holder	\$3.75	amazon.com	
	LAMPVPATH	Micro USB Port Plug	\$0.20	amazon.com	
	RIIEYOCA 90	Micro USB Plug	\$4.50	amazon.com	
Total			\$38.35		

These components are mostly the final choice for this project. Any small and inexpensive components of the circuit design are not included. Any software used for the project will be free.

Team Member Hours

As of 3/30/23, the team has worked 87.5 hours on this project this week. This is a cumulative of 462.5 total hours invested in the C.E.L.P. Gardens project.

				Group Yearly Total	
					512.5

Group Yearly	
Total	462.5