EEC136 Digital Camera

Week 10 Project Update



Overview

- Created robust enclosure
- 2. Added lens to the photodiode array to improve light exposure
- 3. Assembled list of ideas for future improvements.
- 4. Added internal battery with switch
- 5. Presented design
- 6. Began working on Final Report

Waylon

This week:

- Presented design and enclosure
- Soldered switches in place
- Began working on final report

Next week:

- Complete slides for final presentation
- Complete final report
- Take photos for marketing



Alina

This week:

- Helped to make the design of the enclosure
- Helped Viktor with the lens

Plans for next week:

• Work on the report and slides, and practice the presentation

Viktor

This week:

- Design: Modified 3D model with Alina
- 3D: Printed the final model and help with the assembly.

Plans for next week:

- Complete slides for final presentation.
- Complete final report.
- Take photos for marketing.

Angel

This week:

- Assemble: Assisted Viktor in assembling the new final camera enclosure.
 - o 3D-Printed parts for enclosure
- Presented the new enclosure and full functionality of camera with team.

Plans for next week:

- Work on final report
- Prepare for demonstration



Cassandra

This week:

• Final design - assisted with testing and demonstration

Plans for next week:

- Documentation final report and presentation slides
- Final presentation and demonstration

Reference Images

Fig 1.1 - 3 picture pixel test

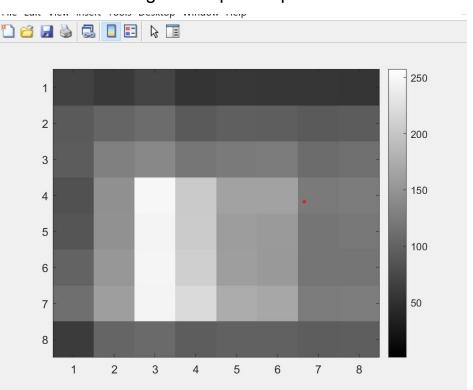
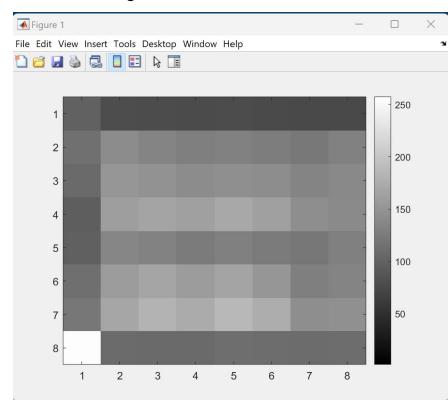


Fig 1.2 - Selfie of the team





Gantt Chart

	PROJECT TITL	E Digital Cam	era						- (6	СОМР	ANY	NAME	EEC	C136	В																			
	PROJECT MANAGE	R Waylon										DATE	3/10	0/23																				
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WBS NUMBER	TASK TITLE	TASK OWNER	START DATE	DUE	DURATION	PCT OF TASK COMPLETE		- Jan g	Name and Address of the Owner, where	St. Contract	-	Section 1992	_	_	A STATE OF THE PERSON NAMED IN	and the latest designation of the	AND DESCRIPTION OF THE PERSON NAMED IN	Service Control Service	and the superior	_	STATE OF TAXABLE	-		_	-	and the same of	the same of the same	-	SHARE SHARE SHARE	1000000000000	HENOUGHACHGAIN	-	DESCRIPTION OF THE PERSON	EEK 8 F
1	Project Conception																	2000	ATE SE															
1.1	Concept Design	Casandra	1/9/23	1/27/23	18	100%																												
1.1.1	Bill of Materials	Vic/Way	12/1/22	1/13/23	42	100%																												
2	Circuit Design																																	
2.1	PSOC Programming Board	Angel	1/9/23	1/27/23	18	80%																												
2.2	Photo Diode Board	Alina	1/13/23	2/10/23	27	100%																												
3	Software/Coding																																	
3.1	Reading charge on pixels	Cassandra	1/21/22	2/18/22	27	100%																												
3.2	Processing Data	Cassandra	1/21/22	2/18/22	27	100%																												
3-4	Displaying Files	Angel	2/4/22	2/25/22	21	95%																												
4	PCB Assembly																																	
4.1	Parts Order Placed	Waylon	1/13/23	2/3/23	20	100%																												
4.2	PCB Boards Order Placed	Angel	1/13/23	2/3/23	20	100%																												
4-3	Soldering	Waylon	2/11/22	2/18/22	7	100%																												
4.4	Continuity Testing	Waylon	2/25/22	3/4/22	9	100%																												
5	Enclosure Design																																	
5.1	3D Model	Victor	1/14/22	2/11/22	27	100%																												
5.2	3D Print	Victor	1/28	2/11/22	13	95%																												
5-3	Assembly	Waylon	2/11/22	2/18/22	7	95%																												

Gantt Chart Google Slides Link

Bill of Materials Page 1 of 2

Item	Part No.	QTY	Cost	Received
Photodiode	VBPW34S	64	\$54.00	Х
Button	474-COM-08720	5	\$5.25	Х
Header Pins	HDR100IMP40M-G-V-TH	10	\$4.95	Х
PSOC	CYBLE-416045-02	2	TBD	Х
Crystal Oscillator	ECS-2520MV-250-CL-TR	1	TBD	
Battery	LIPO Battery (3.7V)	1	\$10.95	Х
OLED Display	LCD-13003	2	\$35.76	Х
Tri-LED	HSMD-C191	5	TBD	Х
Multiplexer	BOB-13906	2	\$5.90	

Bill of Materials Page 2 of 2

Item	Part No.	QTY	Cost	Received
10KΩ Resistor	3503G2B10K7FTDF	4	\$6.56	
0Ω Resistor	MCT0603HZ0000ZP500	10	\$6.10	
1KΩ Resistor	RA73F1J143RBTDF	2	\$3.88	
10uF Capacitor	GMK316BJ106KL-T	1	\$0.33	
22pF Capacitor	12065A220JAT2A	2	\$2.80	
4.7KΩ Resistor	<u>263-4.7K-RC</u>	2	\$0.20	
330Ω Resistor	CMP0805-FX-3300ELF	1	\$0.21	
220KΩ Resistor	CRGCQ2512F220K	8	\$3.68	
470Ω Resistor	CRG0603F470R	1	\$0.14	