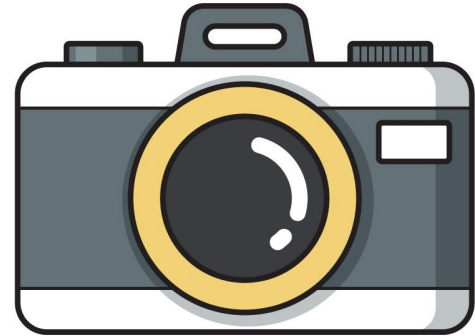


# EEEC136 Digital Camera

Week 1 Project Update

Waylon, Cassandra, Viktor, Alina, Angel





## Overview

1. Bill of Materials finalized and ordered to begin preliminary testing next week.
2. Updated design for programming board, received input from Jacob



# Waylon

- Assisted in determining required parts to order to begin construction of the Beta Prototype.
- Coordinated with Angel on completing PSOC programming board troubleshooting and updated design.
- Placed order for parts necessary for to begin breadboard prototyping.

# Part Receipts



Mouser Electronics®  
1000 North Main Street  
Mansfield, TX 76063  
USA  
(800) 346-6873

Sales Order #: -  
Web Order #: 27817046  
Order Date: 13-Jan-23  
Order Status: Pending



Mouser Electronics®  
1000 North Main Street  
Mansfield, TX 76063  
USA  
(800) 346-6873

## Detailed Order Receipt

### Billing Information

Waylon Pattison  
1413 Oak Avenue  
Davis, CA 95616  
United States  
843-214-6186

### Shipping Information

Waylon Pattison  
1413 Oak Avenue  
Davis, CA 95616  
United States  
843-214-6186

### Shipping Method

Shipment: UPS Ground

### Payment Method

Payment Type: Credit Card - Visa ending in 2689

Item	Product Detail	Qty.	Availability	Price	Ext Total
1	Mfr.: Vishay Mfr. #: SQ1922AEEH-T1_GE3 Mouser #: 78-SQ1922AEEH-T1_GE3 Desc.:	100	100 Ships Now	\$0.301	\$30.10
2	Mfr.: Wurth Elektronik Mfr. #: 1540051EA3590 Mouser #: 710-1540051EA3590 Desc.:	10	10 Ships Now	\$0.487	\$4.87

THIS ORDER IS SUBJECT TO ALL TERMS AND CONDITIONS DISPLAYED AT:  
[www.mouser.com/saleterms/](http://www.mouser.com/saleterms/)

Merchandise Total: **\$34.97**  
Shipping Total: **\$7.99**  
Estimated Sales Tax: **\$2.89**

**Order Total: \$45.85**

## Order Details

### Summary

Sales Order #:	-
Web Order #:	27817046
Order Date:	13-Jan-23
Order Status:	Pending

Product Detail	Customer #	Order Qty.	Price (USD)	Ext. (USD)	Status	Date	Invoice #
Mouser #: <a href="#">78-SQ1922AEEH-T1_GE3</a> Mfr. #: SQ1922AEEH-T1_GE3 Desc.: MOSFET MOSFET Dual Nch 20V Vds SOT-363		100	\$0.301	\$30.10	100 Pending	Pending	-
Mouser #: <a href="#">710-1540051EA3590</a> Mfr. #: 1540051EA3590 Desc.: Photodiodes Photodiodes WL-TDRW THT Photodiode Round		10	\$0.487	\$4.87	10 Pending	Pending	-

THIS ORDER IS SUBJECT TO ALL TERMS AND CONDITIONS DISPLAYED AT:  
[www.mouser.com/saleterms/](http://www.mouser.com/saleterms/)

**MERCHANDISE TOTAL:** \$34.97  
**ORDER TOTAL:** \$41.96



# Alina

- Searched for the parts to be used
- Discussed and researched the features of the components, and the purpose of it
- Started to work on the photodiode board

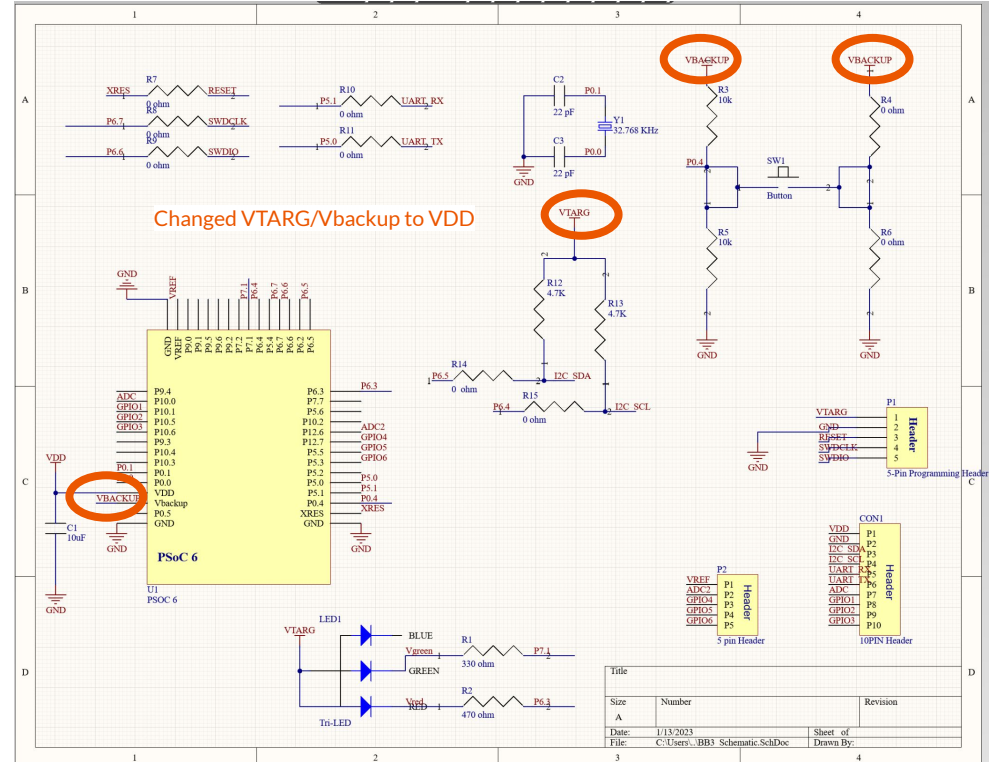
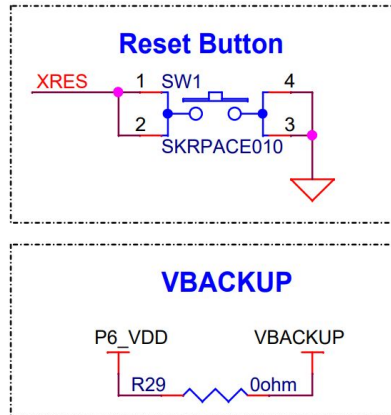


## Viktor

- Assist the team in finding specific parts for both the prototype and the final product.
- Discussed with the team about prototype 1 and final product functionality to better understand the learning outcomes of each one.
- Discussed with Jacob about ideas and possible implementation of I2C communication protocol, which we concluded is not viable nor necessary for this project.

# Angel

- Worked on troubleshooting PsoC board connectivity issues.
- Vtarg and Vbackup were fixed up to have reference voltage of VDD.
- Additional functions will be added to the schematic before being sent to manufacture.





# Cassandra

- Selected parts for photodiodes and transistors
- Discussed other part selections with team
- Continued research on CMOS pixels to better understand how they work



## GANTT CHART

PROJECT TITLE							COMPANY NAME													
PROJECT MANAGER							DATE													
Digital Camera							EEC136B													
Waylon							1/13/23													
							PHASE ONE													
WBS NUMBER	TASK TITLE	TASK OWNER	START DATE	DUE DATE	DURATION	PCT OF TASK COMPLETE	WEEK 1 - Jan 9-13				WEEK 2 - Jan 16-20				WEEK 3 - Jan 23-29					
							M	T	W	R	F	M	T	W	R	F	M	T	W	R
1	Project Conception																			
1.1	Concept Design	Casandra	12/1/22	1/13/23	42	75%														
1.1.1	Bill of Materials	VicWay	12/1/22	1/13/23	42	85%														
1.2			1/14/22	1/21/22	7	0%														
1.3			1/21/22	2/10/22	19	0%														
1.4			1/14/22	1/21/22	7	0%														
2	Circuit Design																			
2.1	PSOC Programming Board	Angel	12/1/22	1/13/23	42	85%														
2.2	Photo Diode Board	Alina	1/13/23	2/10/23	27	0%														
2.3	OLED Display Board	Alina	1/13/23	2/10/23	27	0%														
2.4																				
2.5																				
3	Software/Coding																			
3.1	Reading charge on capacitors	Cassandra	1/21/22	2/18/22	27	0%														
3.2	Processing Data	Cassandra	1/21/22	2/18/22	27	0%														
3.3	Saving Files	Angel	2/4/22	2/25/22	21	0%														
3.4	Displaying Files	Angel	2/4/22	2/25/22	21	0%														
4	PCB Assembly																			
4.1	Parts Order Placed	Waylon	1/13/23	2/3/23	20	33%														
4.2	PCB Boards Order Placed	Angel	1/13/23	2/3/23	20	0%														
4.3	Soldering	Waylon	2/11/22	2/18/22	7	0%														
4.4	Continuity Testing	Waylon	2/25/22	3/4/22	9	0%														
5	Enclosure Design																			
5.1	3D Model	Victor	1/14/22	2/11/22	27	0%														
5.2	3D Print		1/28	2/11/22	13	0%														
5.3	Assembly		2/11/22	2/18/22	7	0%														
5.4																				

[Gantt Chart Google Slides Link](#)

# Bill of Materials Page 1 of 2

Item	Part No.	QTY	Cost
Photodiode (final board)	<a href="#">VBPW34S</a>	100	\$54.00
Photodiode (breadboard)	<a href="#">1540051EA3590</a>	10	\$7.29
MOSFET (n-type)	<a href="#">SQ1922AEEH-T1 GE3</a>	200	\$60.20
Button	<a href="#">In lab</a>	5	\$5.25
Header Pins	<a href="#">In lab</a>	10	\$4.95
PSOC	In lab	2	TBD
Crystal Oscillator	In lab	1	TBD
Battery	<a href="#">LIPO Battery (3.7V)</a>	1	\$10.95
OLED Display	<a href="#">LCD-13003</a>	2	\$35.76
Tri-LED	In lab	5	TBD
Multiplexer	<a href="#">BOB-13906</a>	2	\$5.90

# Bill of Materials Page 2 of 2

Item	Part No.	QTY	Cost
10K $\Omega$	TBD	4	TBD
0 $\Omega$ Resistor	TBD	10	TBD
1K $\Omega$ Resistor	TBD	2	TBD
10uF Capacitor	TBD	1	TBD
22pF Capacitor	TBD	2	TBD
4.7K $\Omega$ Resistor	TBD	2	TBD
330 $\Omega$ Resistor	TBD	1	TBD
470 $\Omega$	TBD	1	TBD