

Glucose Alerting System

Client: Olive Cernigila & Callie Berg

Advisor: Dr. John Puccinelli

Design Team:

Isabel Ploessl - Team Leader

Claudia Beckwith – BWIG & BPAG

Lauren Klein – BSAC & Communicator

Business: Kiera Klemm

Date: 2/19/26

Problem Statement:

Parents and caregivers of children with T1D often struggle to quickly see and interpret glucose readings, leading to stress and delayed decisions. The Wearable Glucose Alerting System aims to solve this problem by providing a clear, visible signal that instantly shows when a child's blood sugar needs attention.

Brief Status Update: We will be presenting our Preliminary Presentation tomorrow at 12:30pm, and then begin on the Preliminary Report 😊

Summary of Weekly Team Member Design Accomplishments:

Whole Team: We prepared for the Preliminary Presentation and started fabricating the new parts!

Name	Activity	Time (hr)	Week Total (hr)

Isabel Ploessl	<ul style="list-style-type: none"> • Presentation slides • Presentation prep • Fabrication of Microcontroller • Progress Report Setup 	1 hr 1 hr 2 hr ½ hr	4.5 hrs
Claudia Beckwith	<ul style="list-style-type: none"> • BPAG meeting • Preliminary Presentation slides • App build 	0.5 hr 1.5 hr 3 hr	5 hr
Lauren Klein	<ul style="list-style-type: none"> • Preliminary Presentation • BSAC • Fabrication of Microcontroller w/ Isabel 	1.5 hrs 1 hr 2 hrs	4.5 hrs
Kiera Klemm	<ul style="list-style-type: none"> • Researched claims and supporting points • Market Size determination • End User profile 	1hr 1hr 1hr	3hr

Weekly/Ongoing Difficulties: None

Upcoming Team and Individual Goals:

- Team:
 - Begin Preliminary Report
 - Continue Fabrication
- Isabel Ploessl:
 - Complete sections of report
 - Continue fabrication with Lauren
- Claudia Beckwith:
 - Convert UI from desktop to iOS
 - Preliminary report
- Lauren Klein:
 - BSAC
 - Continue Fabrication with Isabel

- Preliminary Report
- Start potentially creating Testing Plans
- Kiera Klemm:
 - Meet with clients
 - Start pitch deck
 - Begin cold calling:

Project Timeline :

Project Goal	Deadline	Team Assigned	Progress	Completed
Client Meeting	1/29	ALL	100%	YES
Weekly Progress Report	1/29	ALL	100%	YES
PDS	2/5	ALL	100%	YES
Design Matrix	2/13	ALL	100%	YES
Preliminary Presentations	2/20	ALL	25%	Starting 😊
Preliminary Deliverables	2/25	ALL	10%	
Show and Tell	3/20	ALL		
Poster Presentations	4/24	ALL		
Final Deliverables	4/29	ALL		

Expenses :

Category 1 - Appearance										
Item	Description	Manufacturer	Mft Pt#	Vendor	HS Code	Date	QTY	Cost Eac h	Total	Link
Category 2 - Internal/Electronic Components										
Item	Description	Manufacturer	Mft Pt#	Vendor	HS Code	Date	QTY	Cost Eac h	Total	Link

Seed StudioXIAO ESP32-C6 (3PCS)	Microcont roller for internal bracelet circuitry	Seed Studio	102010574	Seed Studio	8543709990	2/4/2026	1 (3 pack)	19.98	19.98	XIAO C6 microcont roller (3 pack)
1 x NeoPixel Jewel - 7 x 5050 RGB LED with Integrated Drivers[ID:2226] =	LED light for bracelet	Adafruit Industries	2226	Adafruit Industries	N/A	2/4/2026	1	20.39	20.39	NeoPixel Jewel - 7 x 5050 RGB LED with Integrated Drivers : Adafruit Industries, Unique & fun DIY electronics and kits
1 x Lithium Ion Polymer BaΣery - 3.7v 500mAh[ID:1578]	Battery for bracelet	Adafruit Industries	1578	Adafruit Industries	N/A	2/4/2026	1	22.50	22.50	Lithium Ion Polymer Battery - 3.7v 500mAh : Adafruit Industries, Unique & fun DIY electronics and kits
								TOTAL:	62.87	