

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: 1/29/26

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: The team is excited to continue this project into BME 301! We have selected our new roles and are beginning a re-write of our PDS, while doing new supplemental research to complete this.

Summary of Weekly Team Member Design Accomplishments:

Whole Team: Set up what was needed to begin a new semester in this project!

Name	Activity	Time (hr)	Week Total (hr)

Isabel Ploessl	<ul style="list-style-type: none"> • Team meeting • Team leader duties <ul style="list-style-type: none"> ○ Lab Archives set up ○ Team Drive set up ○ Format Progress Report • Library Assignment • Research Assignment • PDS work 	<ul style="list-style-type: none"> ½ hr ½ hr ½ hr ½ hr 1 hr 2 hr 	5.5 hours
Claudia Beckwith	<ul style="list-style-type: none"> • Team meeting • Set up website • Desktop to mobile app process research • Library Assignment • Background/impact research 	<ul style="list-style-type: none"> ½ ½ 1 1 1 	4 hrs
Lauren Klein	<ul style="list-style-type: none"> • Team Meeting • BSAC • Library Assignment • Research • PDS 	<ul style="list-style-type: none"> ½ hr 1 hr 1 hr 2 hrs ½ hr 	5 hrs

Weekly/Ongoing Difficulties: No difficulties yet :)

Upcoming Team and Individual Goals:

- Team:
 - Begin editing PDS and start on Matrix
 - Meet with Olive & Callie
 - Get them an estimated product cost of device by 2/3
- Isabel Ploessl:
 - Begin research on what new materials we would like to purchase
 - Make an initial material order before 2/5
 - Begin editing assigned PDS sections
- Claudia Beckwith:
 - Meet with contact from CS department to understand how to get Flutter application onto a mobile device

- PDS
- Finish prelim/background research
- Lauren Klein:
 - Continue researching on microcontrollers & decide on a model
 - Edit/revise PDS sections
 - BSAC
 - Design Ideas

