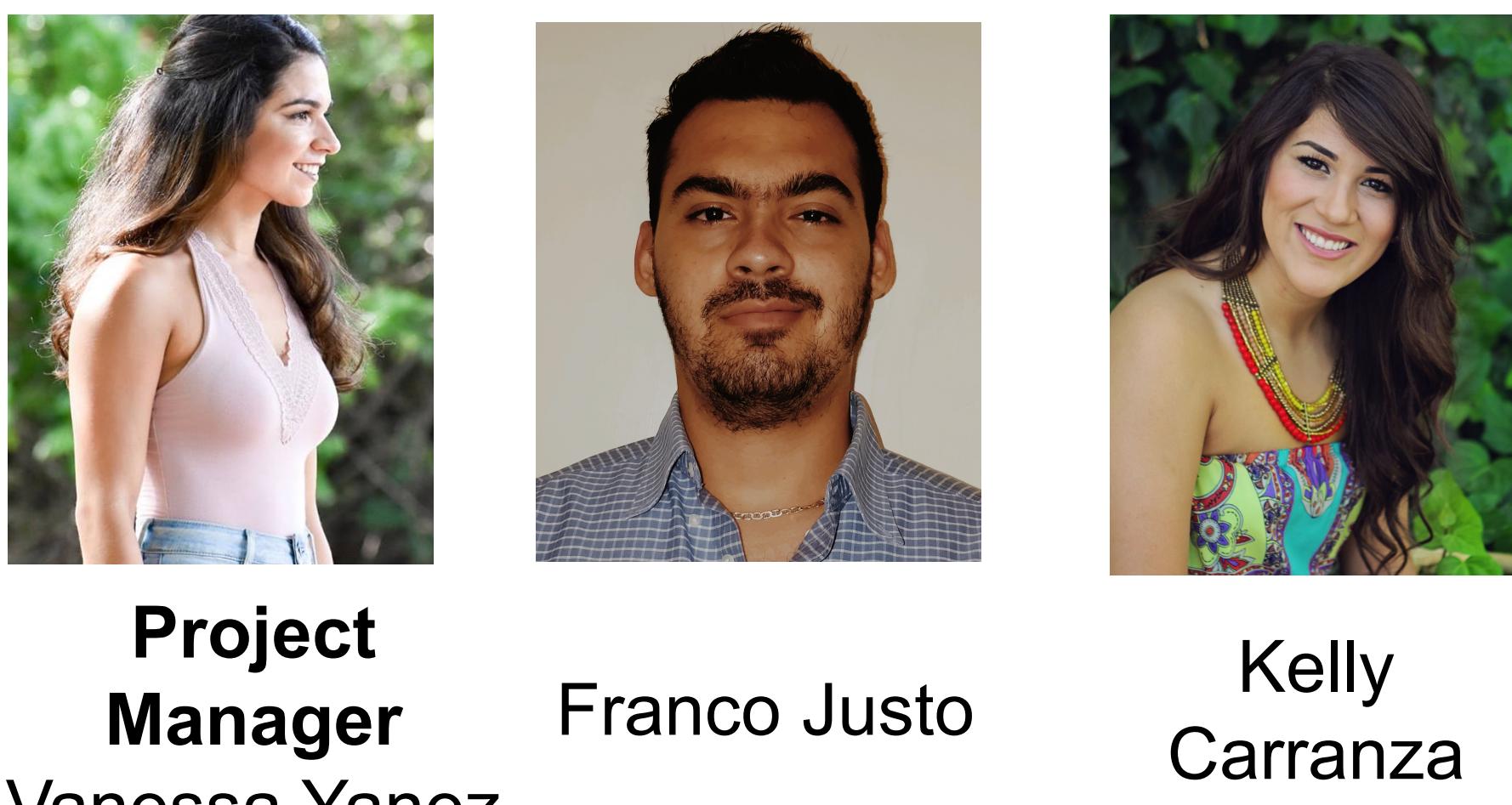


1.7 Hexiwear IoT Team Lambda - HexiMed



Sponsor: NXP Semiconductors

Team Members



Project Manager
Vanessa Yanez

Franco Justo

Kelly Carranza

Project Features

Feature Function

User Input User will input medication information on the Hexiwear device

Visual and Sound Alarm Matrix RGB Click and BUZZ 2 Click will prompt user to take their medications at the correct times

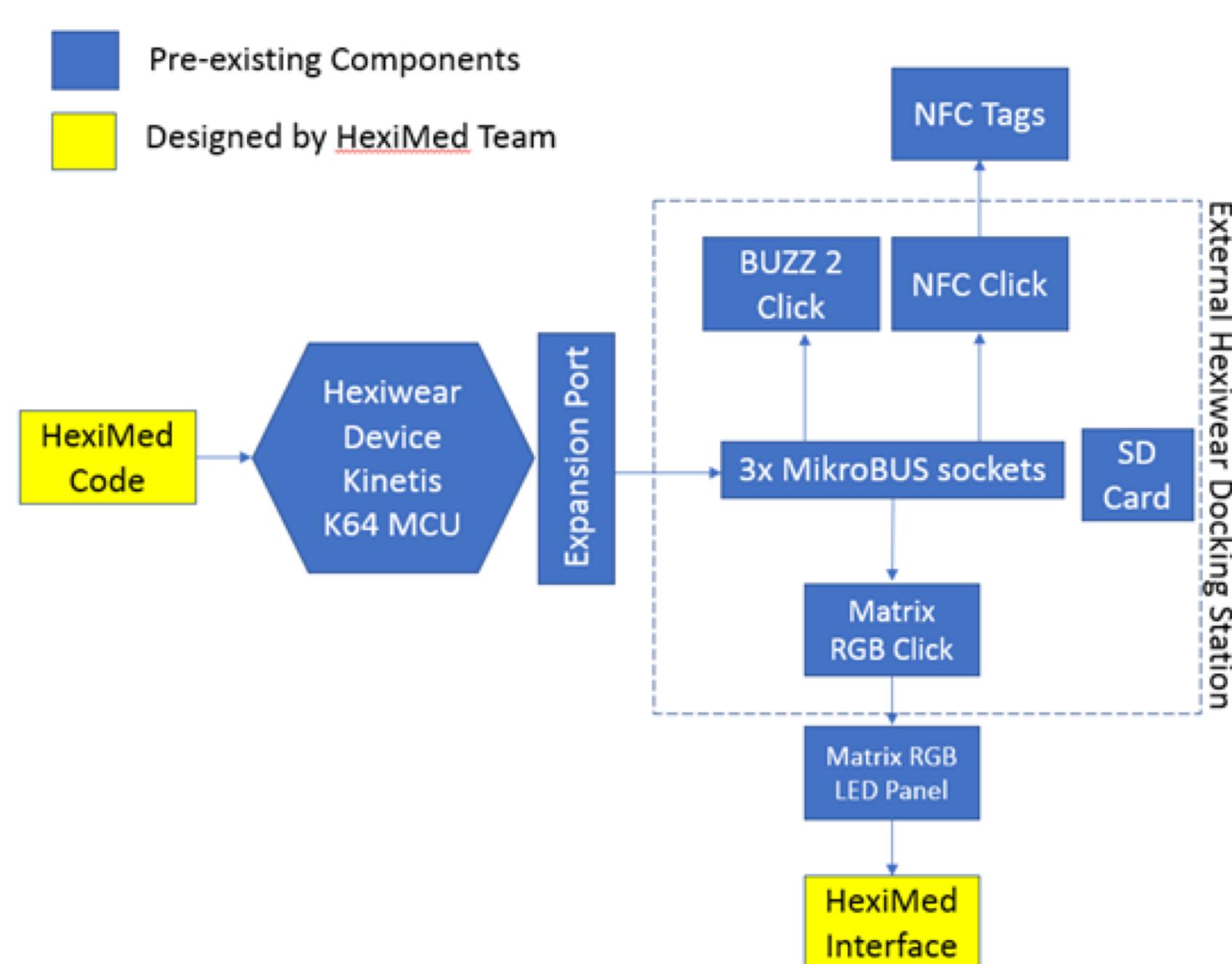
Medication Tracking NFC Tags will be attached to pill bottles to track each time medication is taken

Medication History Data from NFC Tags will be stored on to an SD card to create a medication log

Hardware Components

- Hexiwear
- Hexiwear Docking Station
- BUZZ 2 Click
- NFC Click
- NFC Tags
- Matrix RGB Click
- Matrix RGB Panel

Top Level Block Diagram



Project Description

HexiMed is an IoT connected medication reminder that functions to:

- Notify a patient when to take proper medications by use of visual and sound alarm
- Seeks to improve medication adherence by establishing an organized medication schedule
- Provide a medication log stored on to a SD card to be accessed by a physician, caregiver, or patient



Why HexiMed?

- Lack of medication adherence is estimated to cause 125,000 deaths per year
- Costs between \$100-\$289 billion a year to tax payers
- People typically take only half of prescribed doses

Design Approach

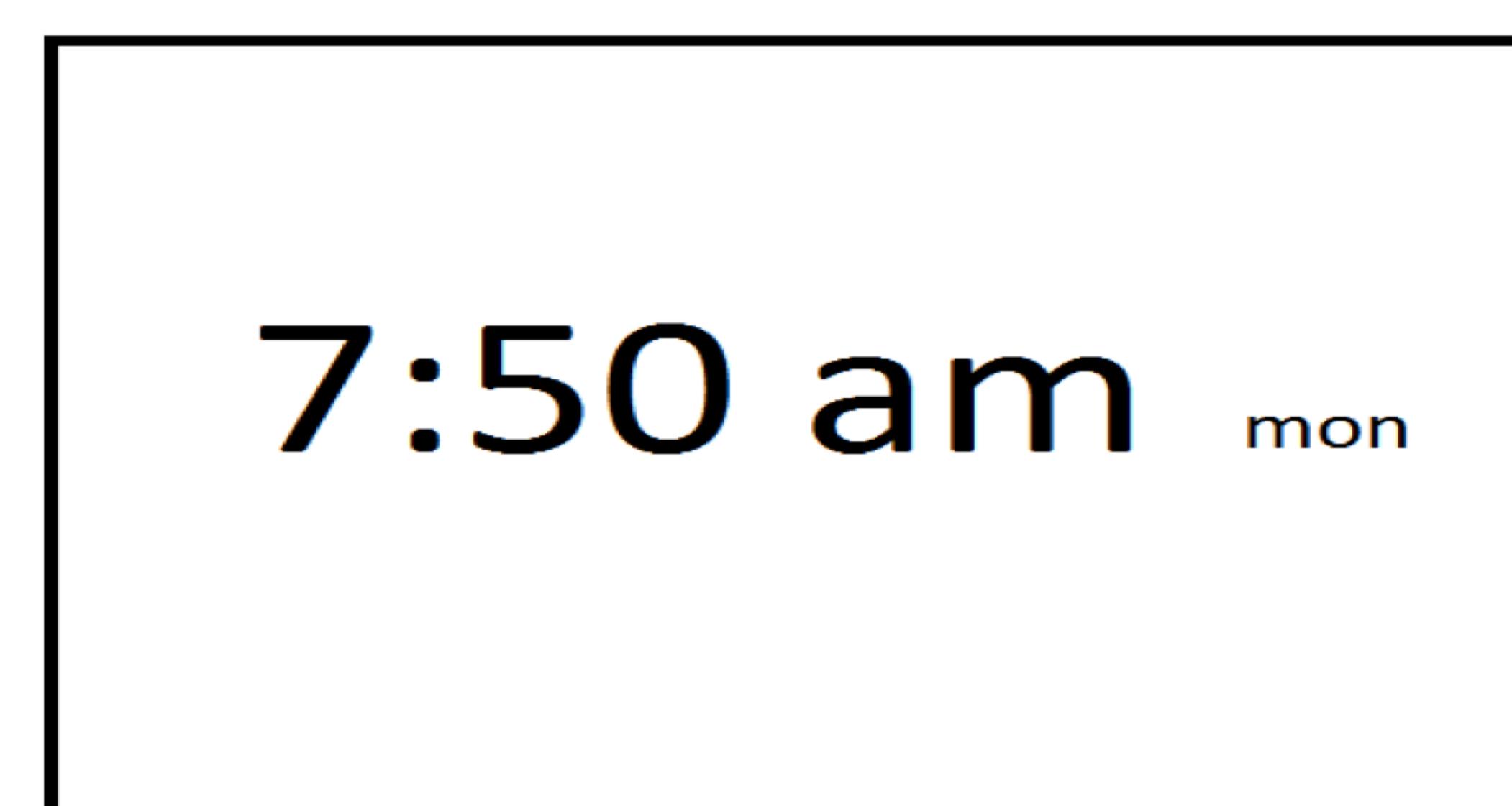
User Input Sequence:



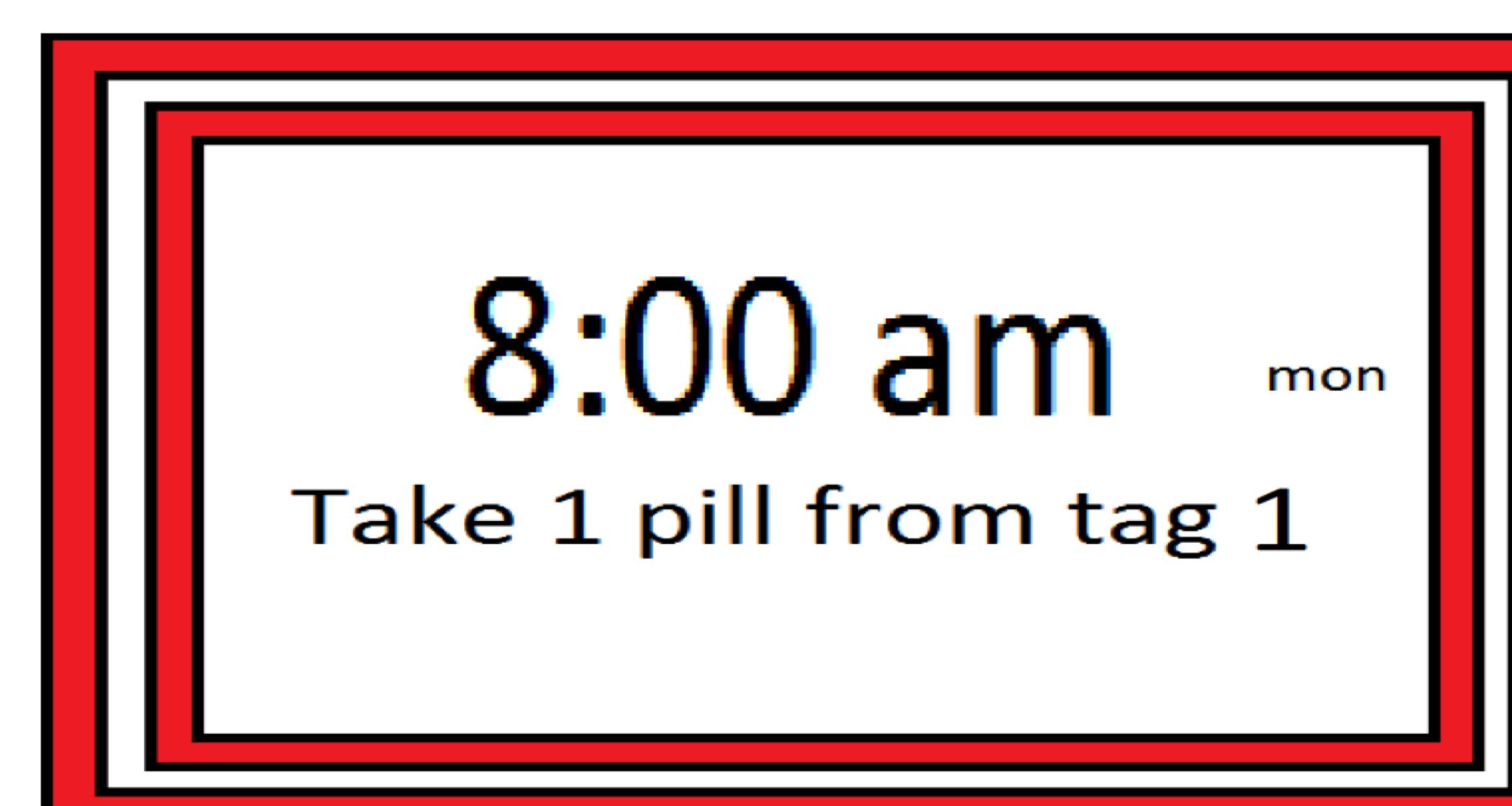
Interfaces:

- 1.1" OLED Hexiwear Screen
- 7.5"x7.5" LED Panel
- Audio Alarm
- NFC Tags
- Memory Card

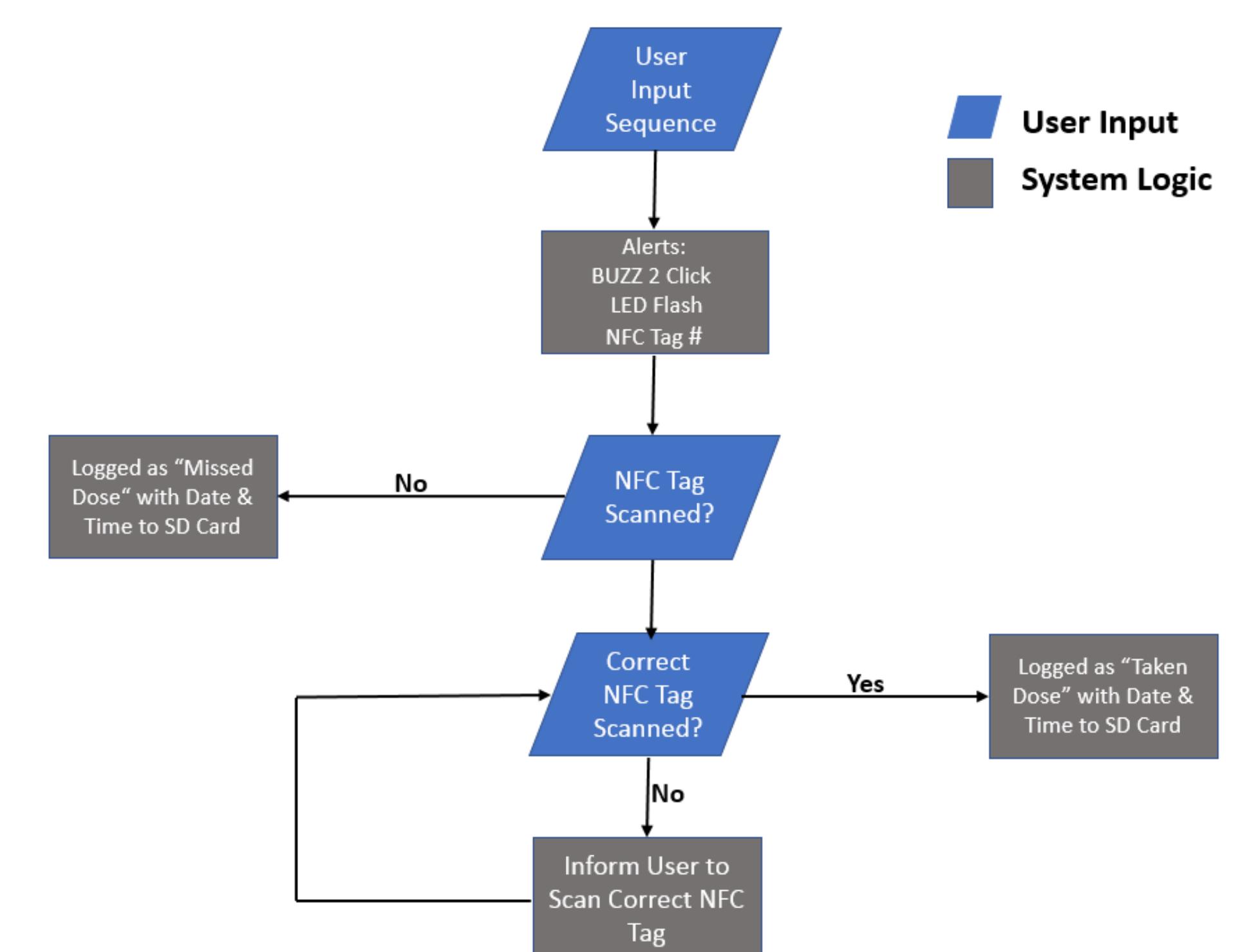
Home Screen



Triggered Alarm



Functional Block Diagram



Future Tasks

Milestone	Completion Date
Program, Test, and Debug Visual Alarm	9/27/18
Program, Test, and Debug Medication Tracker	9/27/18
Program, Test, and Debug Medication History	9/27/18
Integrate System and Test as a Whole	10/11/18
Finish Testing	11/11/18
Document Testing, Create User Manual	11/17/18

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- Faculty Advisor: **Dr. Semih Aslan**
- NXP Sponsor: **Dr. Kevin Kemp**
- Senior Design II Mentor: **Mr. Alex Song**
- Administrative Assistant: **Ms. Sarah Rivas**