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## ECE - 511-001

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# People Tracker

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## OVERVIEW

We intend our project to be able to track incoming and outgoing participants within an enclosed space. The device will be situated within the entryway of the space and present a visible tally of participants. The device will provide audio indication whenever a new participant is counted as well as alert when the capacity of the room is met.

## GOALS

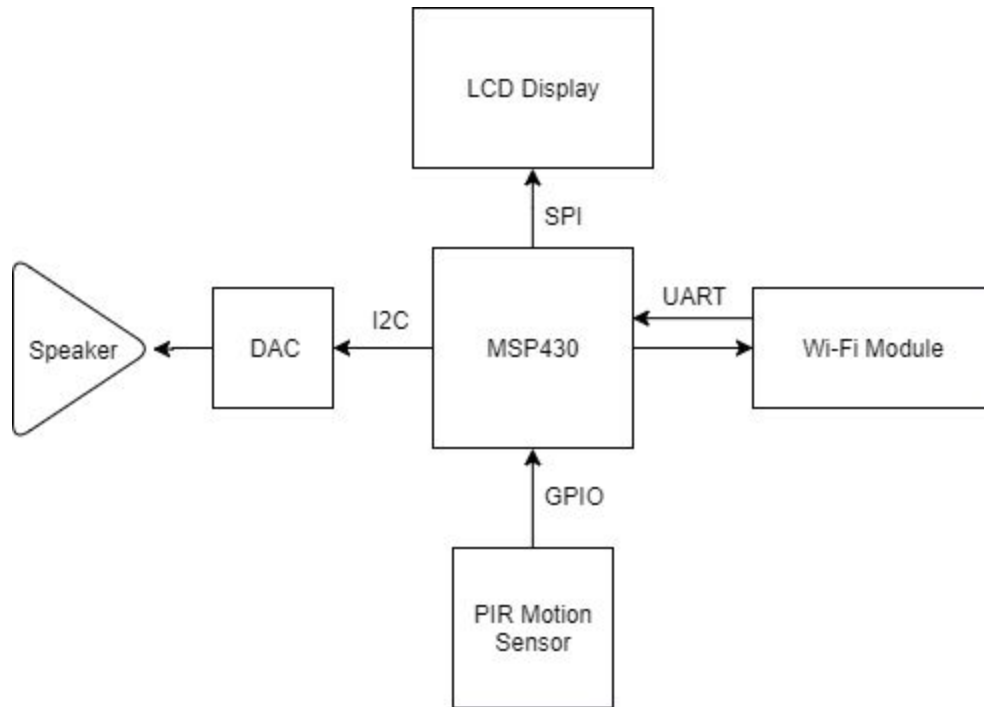
1. Monitor incoming and outgoing bodies in a given space
2. Numerically track current person count
3. Deduct and increase person count
4. Visually display person count
5. Audibly alert when a new body is counted and capacity is reached
6. Monitor and control capacity limit using an HMI interface

## COMPONENTS

- MSP430 [Base]
- LCD Display [Complex]
- DAC [Complex]
- Wi-Fi (Potential) [Complex]
- IR Sensor (x2) [Average]
- Enclosure [Simple]
- PCB [Complex]
- Switch [Simple]

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## SYSTEM ARCHITECTURE



## MSP430 FEATURES

LCD Display - 2 timers, eUSCI (SPI)

DAC - eUSCI (I2C)

Wi-Fi - eUSCI (UART)

HC-SR501 - GPIO