ENGI 301

<Smol Pace Keeper> PCB Proposal

<11/15/21>

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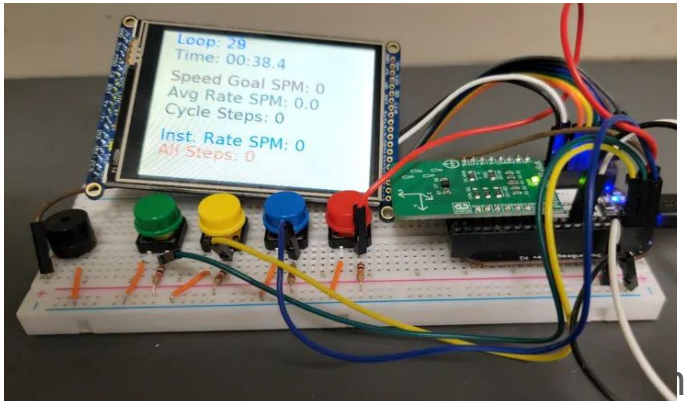
Background Information

- Hackster / GitHub



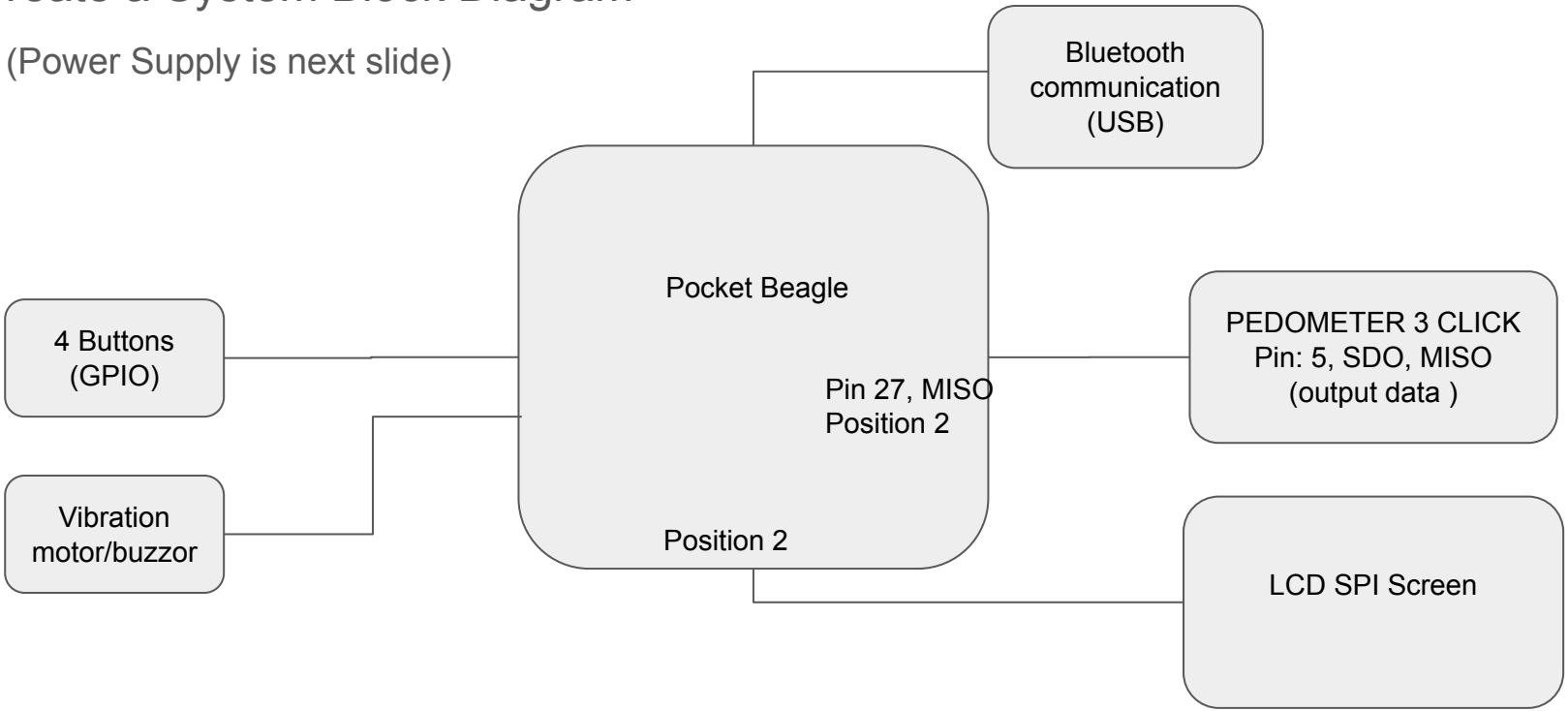
My prototype is a pedometer that track steps n, instant speed and average speed. The user interface allows a step goal in where if the user starts to go faster or slower than this goal, a buzzer will sound. There are four buttons, two for setting up or down the speed goal. One for resetting the average step count, and one for resetting the speed goal.

For this project, I will change the amount of buttons to three: two for setting up or down the goal speed. One for resetting the average step count and speed goal. I will also add a switch for the buzzer mode being on or off.

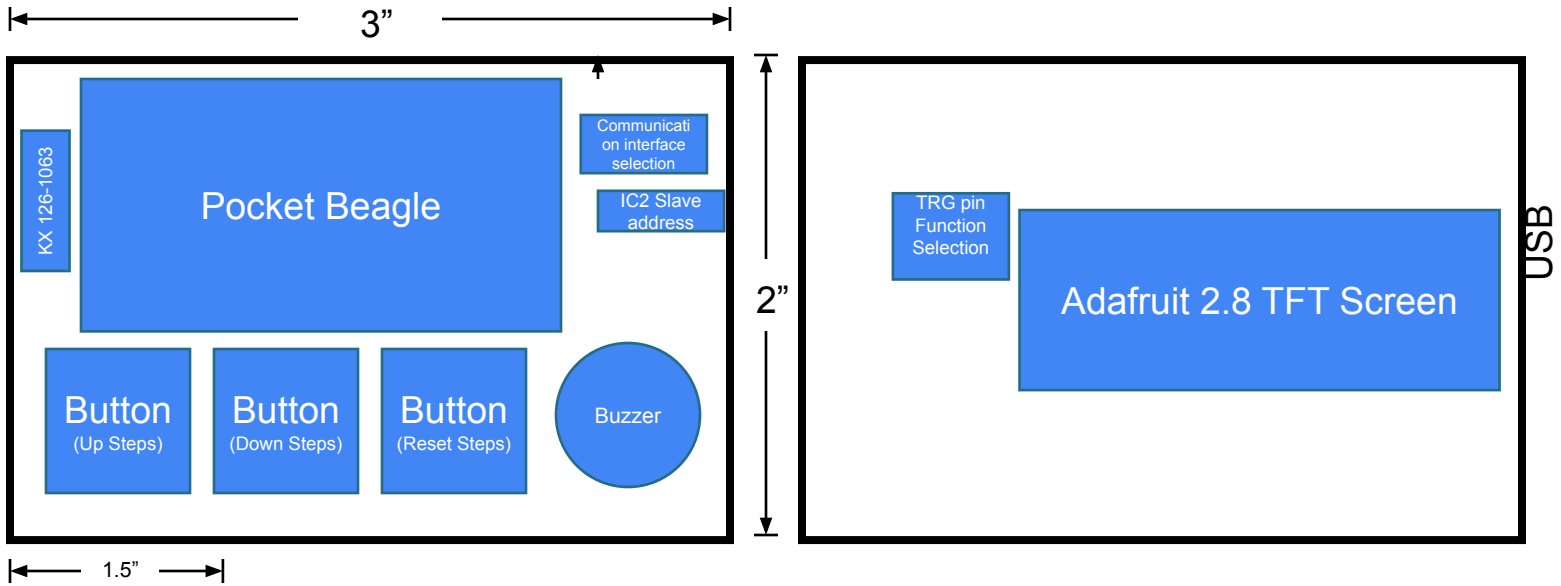
The SPI screen will need to be smaller for the desired application. The sensor will stay the same.

System Block Diagram

- Create a System Block Diagram
  - (Power Supply is next slide)



Mechanical Drawing



On the back, components of the pedometer Oclick 3 are places to be on one board.

Components Required

- Create a list of all the components that you require for the PCB
  - USB Host connector
  - PEDOMETER 3 CLICK, link
  - Battery
  - SPI LCD screen, 1.4 inches
  - 3 Buttons
  - 1 Buzzer
  - https://www.adafruit.com/product/1770