Project 3: Part C

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Constraints

1. Only one person can be detected at a time

2. Depending on the sensitivity of the audio transducer, power can sometimes be wasted

3. The distance is an approximation due to the nature of the ultra sonic transducer (see constraint 1)

4. The ultra sonic transducer must be in within 4m of the target (this is the effective range of the transducer)

Specifications

1. An internal timer keeps track of the time between persons; this is used to approximate distance

2. An LCD display and onboard LEDs will specify whether the current person can go ahead

3. Sound is used for to determine whether power should be on or off; if sound hasn't been recently detected, the power is turned off to save power

4. A seven segment display will count down how long the person waiting needs to remain waiting