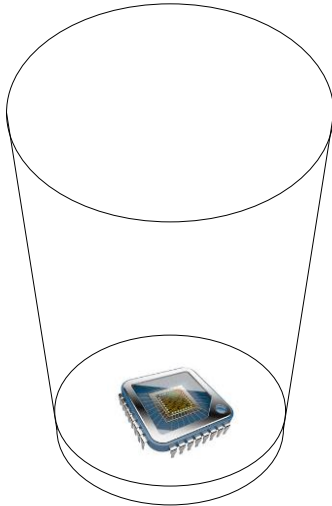


Wireless Fluid Detection

UCSB Capstone Project | Senseseeker Engineering Inc.

Senseseeker Engineering Inc. provides silicon IP, IC and image sensor design and systems engineering all targeted at the unique needs of the scientific and infrared image sensor community. We specialize in the design of digital imaging sensors and readout integrated circuits for hybrid image sensing arrays. We are located in the Santa Barbara, CA, area amid the west coast's hub of infrared and scientific image sensor companies. For more information visit Senseseeker.com.

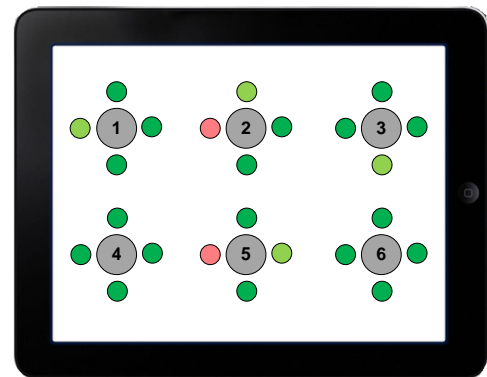


Project Description

In a busy restaurant or bar, it is extremely challenging for staff to continuously monitor every patron. Consequently, some patrons can get neglected, leading to missed sales and unhappy customers. Senseseeker is proposing to create a detector that can be used to automatically monitor drink levels, so that the restaurant can offer better service. Our proposed technology will alert the staff the moment a patron has finished their beverage, with a stretch goal to be able to monitor the amount of liquid remaining in the cup and anticipate when a customer may finish their drink. This system has the potential to increase both restaurant revenue and customer satisfaction. The restaurant will make more sales in a given time period, as they can clearly identify where the demand is. This has the added benefit of leading to increased customer satisfaction, as patrons will receive the attention they need when they require it.

Project Objective

Create a fluid detection system that can detect the level of liquid in a cup, or at minimum detect when the cup is emptied. Have multiple units be able to simultaneously communicate to a central computer wirelessly. Program the central computer to notify the user when a cup is emptied, or running low. This system must be developed to be waterproof. A stretch goal would be to make the system modular and able to attach and detach it from standard size glasses, as well as washable by industry machines.



Project Deliverables

Two or more fluid detection units that can alert a central computing unit when the cups to which they are attached are emptied or running low.

Preferred Student Qualifications

Background in electronics
Interest in wireless systems, networking, and sensors
Experience in programming

Assets Available to Students

Engineers at Senseseeker Engineering Inc.