# Overflow Notifier Definition

# Introduction

The remodeled kitchen is to far away from the septic tank for a gravity fed system. Therefore a sump pump will be used to pump water from the kitchen to the septic tank. However if the pump ever breaks down there needs to be a way to signal that to people.

Red Text: Conventions A To-Be-Determined requirement.

[ ... ]: Future Feature. Color et by the Identifier element type

# Product Characteristics

* Weight:
* Height (X):
* Length (Y):
* Width (Z):
* Product Life Time Target:
* Operating Temperature:

# Device: Sensor

## Detect over flow

Characteristics

* Will use the overflow outlet as a sense point
* Min flow: sink faucet full flow
* Must survive out side in English weather

# Device: Notifier

## Feature List

## Light Indicator

Characteristics

* Initial indicator
* Color: ??

## Buzzer

Characteristics

* Secondary Indicator
* Sound Sequence:
* Frequency: ??

## Processing

Characteristics

* Handles logic to turn on the light and buzzer

## Power Brick

Characteristics

* Provides power to the Notifier and Sensor

## Interface List

Sensor <--> Notifier Characteristics

* DC On/Off signal
* Provides Power to the sensor

## Mechanical

* Waterproof

# Behavior Definition

# Product States

* NORMAL
* ALERT
* SECONDARY ALERT

# Processes

## Notification

Behavior

* Immediate notification is not needed
* Blinking Rate: ?
* After a time out secondary signal should sound

## Secondary Indicator Timer

Behavior

* This timer turns on when over flow is detected. When it times out the secondary indicator turn on.

# Detailed Behavior

# Initial State: NORMAL

## Overflow water is detected

1. Turn on Light Indicator
2. Start Secondary Indicator Timer
3. Go to ALERT State

# Initial State: ALERT

## Reset Button is pressed

1. Turn off Light Indicator
2. Go to NORMAL State

## Secondary Indicator Timer times out

1. Turn on Buzzer
2. Go to SECONDARY ALERT

# Initial State: SEONDARY ALERT

## Reset Button is pressed

1. Turn off Light Indicator
2. Turn off Buzzer
3. got to NORMAL State