Submission Date	2018-02-05
Project Name	Active House
Student Names	Vishwas Malhotra, Oliver Duarte, and Kyle Sy
Project repository	https://github.com/kylesyCENG317/Active-House-
SensorsEffectors choices	luminosity sensors, gas sensors, temperature sensors, current sensors, water flow sensors
The database will store	The database will store log in credentials and data picked gathered by the sensors
The mobile device functionality will include	The mobile device functionality is to show the data from the database in the app
I will be collaborating with the following company/department	none
My group in the winter semester will include	Our group includes Vishwas Malhotra and Oliver Duarte and Kyle Sy
50 word problem statement	The problem that our project solves revolves entirely inside a room. Due to errands we have to attend to, we are forced to leave the comforts of our room. While this project doesn't allow users to attend to their agendas without leaving their rooms; it brings their rooms with them so they won't have to worry what's going on inside their rooms-- to some extent.
100 words of background	This project is a collection of sensors that will allow the user to pickup different elements inside a room. It was inspired by having the issue of being away from your room and wanting to monitor it. This is a sophisticated system that includes a raspberry pi and arduino. The communication between the arduino and the raspberry pi occurs with two xbee shields attached to the arduino and the pi. The sensors include: lux sensors which is used to measure the luminosity, water flow sensor which measures the volume of water in liters per second, gas sensors which detects different kinds of gasses in the room, temperature sensor which measures the temperature in any temperature based unit of measurement, current sensors which measures current in amperes.
Current product APA citation	none
Existing research IEEE paper APA citation	none
Brief description of planned purchases	The purchases for this project includes a raspberry pi, the sensors mentioned above and arduino which total to $300.00
Solution description	The sensors will be attached to arduino as a PCB hat and the arduino will post the gathered data to a firebase database which will then be used to update the mobile application.