

School of Engineering

Department of Electrical and Computer Engineering

**Capstone Project Proposal**

**Project Number**: S18-36

**Project Title**: Smart Home Device

**Project term**: Spring 2017

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**Capstone Project Proposal**

**Team number: 36**

**Title: Smart Home Device**

1) Room Sensors, Gather Data

2) Interface With Phone / Location

3) Room Automation / Relay Control

We wish to design and create a proof of concept for a multisensor device, that when placed in a room, gathers information such as temperature, humidity, light levels, etc. Current home control products often only perform a single function whereas a multisensor device may provide all-in-one functionality or if multiple devices are used can provide more sensor coverage with fewer devices. The sensor information can then be viewed remotely on a smartphone. The end goal is to provide a smart home device from which different room conditions can be monitored and controlled. For example, when a phone enters the room with the paired device, lights will automatically turn on (provided that light levels are low enough). The device will then automatically know that the user is in the room based off location, bluetooth, and will disable any security features. The device should be able to use motion detection/sound to act as a security when the user is not in the room. Along with security measures, we wish to implement room automations features such as light control, tv, and other appliances through the smartphone application.