



# RUTGERS

School of Engineering  
Department of Electrical and Computer Engineering

**ECE Capstone Program**  
**Spring 2018**  
**Project Abstract & Info**

**Project Number:** 36

**Project Title:** Smart Home Device

**Project Term:** Spring 2018

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**Keywords:** Smart, Home, Automation, Server, Application

**Project Abstract:**

Most smart home devices provide limited applications, such as just security alerts or general information, such as temperature and humidity. We wish to design and create a proof of concept for a multi-purpose smart home device that, when placed inside a room, has multiple applications that, at the moment, is intended to be used by one or more users. The first application would be to gather information such as temperature, humidity, motion detection and light levels. The sensor information can then be viewed remotely on any device with internet connectivity through a web application. The end goal is to provide a smart home device form which different room conditions can be monitored and controlled. For example, when a person enters a room with the device, the lights will automatically turn on, provided that the light levels are low enough. The device will then know that the user is in the room and thus disable any security features. The device should be able to use motion detection to act as the security trigger for when the user is not in the room. Along with security measures, we wish to implement room automation features such as lighting control, energy saving, and other features through a web application.