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| **MGM Home Automation** | | |
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### SmartHouseDesign-577x500SmartHouseDesign-577x500Objective and Scope

The objective and scope of MGM Home Automation is to change people’s lives for the better through security and home automation. Our project focuses on automating mundane tasks around the home, but at the same time providing our users with security and peace of mind.

### Temperature Controlled Fan

Our system has a temperature sensor which is designed to work in conjunction with a fan. When the temperature of the room is greater than 78° F, it will activate the fan, otherwise the fan will be off. However, for the purposes of this project we will use an LED as a stand in.

### Motion Sensing Light System

This feature is implemented by using a passive infrared motion detector. Our design is centered on turning on a light bulb when the sensor detects movement. However, this feature can be expanded to a lighting system composed of several light bulbs, but for the purposes of this project an LED will be used as a stand in for a light bulb.

### Keypad Enabled Security System

In order to fully implement a reliable security system, we combined two components, the keypad and the micro servo. When the user enters the correct password into the keypad, the servo will turn on, which will open a door. However, it should be noted that the servo that we used in this project is far smaller than commercial grade servos.

### Home Integration

MGM home automation is ideal for home integration. Even though we used a set of LED’s and a smaller servo as substitutes during the implementation of this project, the features that we implemented can be scaled up to the point that it can be seamlessly integrated into the resurging housing market. We purposely chose components that are low powered, including the MSP430 which leads the industry when it comes to energy efficiency.