**GOALS**

- Design an *Automated Grocery List* device for household goods.
- Allow device to add items on its own using a weight system.
- Create an app for consumers to keep track of their products.
- Build a working prototype for at least 1 household good.
- Be able to adjust information received from the scale.

**PLANS**

**Scale:** Keeps track of how much product you have.

**App:** In combination with the scale, it will alert you when you are running low on product; adds product to a list to notify you when product is at targeted weight.

- Make a universal app using Java
  - Android app using Android Studio
  - iPhone app using Swift
  - Connect the scale using a single board computer to an online server
  - Work with and modify the data received through the server with the app

**CONCLUSION**

Through the duration of Senior Design II, we have created a device that will automatically add an item to a grocery list after the initial criteria are met. The program will add and adjust items based on comparing its initial weight (by weighing the item on the scale) to its current weight, and will be added to the list when the targeted weight is attained (targeted weight set by the user). We have built a weight scale that connects to an online server via different single board computers that receives and transmits that data using a wireless attachment. We can adjust this received data using our app, which will help customers keep track of their products.

**OVERVIEW**

Below are the components we plan on using to implement our design along with the flow chart of how the system will work:

- **Scale:**
- **App:**
- **Hardware:**
  - Arduino
  - Arduino Uno
  - Arduino WiFi Shield
- **Software:**
- **Flow Chart:**
  - Load Cell (Beam)
  - HK711
  - Arduino 191 Microcontroller
  - Arduino WiFi Shield 101

**ETHICS STATEMENT:**

To the best of our knowledge, our project was conducted in accordance to the IEEE Code of Conduct.