# Software Projects Concept

## Group Number: 24

## Concept Name: Inventory Scales

## Initial Concept Idea

What is the purpose of this concept, what will it provide and to who?

Our concept is a physical product that allows the user to scan and place an item of their choosing, recording and keeping track of its mass and reordering the product when it drops below a certain percentage value. It may also have an app that allows you to track the levels of the items you place.

Inspiration for the Concept

Why do you think this concept is interesting or important? What has inspired you to explore this concept?

We believe this concept could be used in a range of settings, from homes to business inventory checking. It would eliminate the need for manual inventory checking when used in an industrial setting like a kitchen and create an extra level of convenience for those using it in a household environment.

The inspiration for this idea came from always running out of items like deodorant or toothpaste and having to remember to buy some or run the risk of going without. You may also not have the chance to go out to pick up these essentials after they’ve run out for a at least a day often times.

## Open Questions about this concept

What you know about this concept? What else do you need to know before you can be sure that this concept can be implemented? What is your plan for exploring this concept?

We currently know that the product will require a weighing device, possibly load cells, connected to an Arduino or raspberry pi in order to record the mass data. It may also require a camera for barcode scanning to get the weight data of an item if its container is a large proportion of the overall weight. Before we can implement this concept, as a group we need to spend time learning about the equipment available to us in the Universities workshop as this is primarily where the hardware will be assembled. We will need to be in contact with not only individuals for home use, but also businesses that may find use from this product. Our plan for the immediate future is to gather market data from the sources listed previously, asking questions like what type of products people are most likely to use with our concept. We are also going to begin to look into the electronics involved in items like a simple set of digital scales, as well as how to implement that technology in our own product.