

# **S0 - Research of Related Products and Projects**

Team 15

## **Introduction**

When serving beverages - whether this be commercially or at home - the ability to know exactly how much is being served and/or consumed would be ideal to track and manage inventory and product. This can also serve as a way to predict sales and capitalize on profit margins in a business setting.

A Smart Beverage Dispenser is a great idea, but is it unique? In the following document we will analyze a variety of organizations that have come up with a similar idea. This will provide you (the client), with a better understanding of the market so we could tailor a system that would be of best value. It is important to learn the products of our competitors, to adjust and refine a product that sells and provides an edge when entering the industry.

## **Related Products**

### **Overview**

Many beverage dispensing systems exist, however, most of the systems are intended for commercial use and are not suitable for personal or home use. Additionally, commercial based systems often support dispensing of a large number of beverages where personal systems typically only dispense one or two beverages.

### **Mixed beverages**

Commercial-based systems offer the ability to mix two different beverages together while pouring takes place. Personal systems can also include this feature; however, it can create design complexity as personal systems may not have additional beverage lines to support dispensing multiple beverages at once.

### **Point of Sale**

Commercial beverage dispensing systems often provide point of sale software that manages inventory, tracks usage, and creates customer bills. Personal beverage systems typically do not include any form of usage or consumption monitoring. This will be the major distinction between our implementation and others', as our dispensing system will include software that will monitor consumption and provide additional functionality.

### **SIDEBAR®**

SIDEBAR® is an electronic beverage dispenser company aimed at home users, for an elegant storage and serving solution of the owner's desired beverage. Their 6500 series system comes in both a horizontal and vertical style, each of which are able to dispense up to five different types of beverages. SIDEBAR® 6500 series dispensers retail starting at \$399.99 and depending on electrical configurations, along with styles, increase in price. SIDEBAR® also provides the Liquor Tower 6500LT which provides the "... traditional 'Pub Style' look while serving the spirits, wines and other non-carbonated mixers at the touch of a

button!”. The Liquor Tower 6500LT is unable to dispense carbonated drinks, and provides no tracking of liquor dispensing or password protected profile entry.

### **Berg Infinity Network™**

*Berg Infinity Network™* is a beverage and liquor management system that takes advantage of user input and manages the control in a variety of areas such as system management and maintenance, scheduling, inventory control and complete reporting. This is a complete software product, where the beverage quantities are input directly with point of sale terminals.

*Berg Infinity Network™* is just one stem of the many Berg management softwares that are available. The *Berg Dispenser Network™* is an additional management system that connects to the *Berg Infinity Network™* that creates a “network of networks” which all connects to a personal computer or computing system as a single point of management. Berg Liquor Controls provides a way to manage liquor/beverages on a variety of levels, from volume to point of sale.

### **Projected Features**

We aim to deliver a product that provides a convenient and simple way to dispense (and track the dispensing of) refrigerated beverages at home, with the following features:

- Track usage on a person-to person basis as opposed to the traditional point-of-sale approach utilized by commercial systems.
- An integrated refrigeration system to keep beverages at an appropriate drinking temperature.
- Dispense not only non-carbonated beverages, but also include support for the dispensing of carbonated beverages, e.g. from a keg.
- Allow the dispensing of multiple beverages by drawing from separate lines into a single main line which is flushed after each dispensation to ensure no cross-contamination.
- Allow the creation of unique password-protected user profiles to ensure secure transactions and manage individual consumption.
- Provide graphical analysis of transactions and usage statistics, which can be accessed through an online application.
- Support for different preset pouring amounts alongside non-specific pouring amounts.
- Send an alert if the beverage in the refrigerator reaches a critical temperature or if the fluid levels are running low.

### **Technology**

We plan to use the Arduino platform to construct the required code. Therefore, we will be using the Arduino C language to program in.