

## Senior Design Project Description for SPRING 2016

### Project Title: Bump Bar Design (XP\_BAR)

Supporter: Xpient

Supporter Technical Representative: ASSIGNED

Faculty Mentor:  ASSIGNED  TBD (check one)

Single Team  Dual Team  (check one)

Personnel (EN/ET):   1   E,   2   Cp,      Cv,   2   M,      SE (Each team)

(Complete if the number of students required is known)

Expected person-hours: (250 per student)

#### Description of Project:

Xpient is a company that offers a full complement of integrated technologies to help restaurants manage operations. This includes the use of video displays in kitchens to coordinate the items that need to be prepared to fulfill the orders placed by their customers. While some environments are conducive to the use of touchscreen technology for user input to the displays, other environments are not. Environmental conditions such as heat and steam, high mounting of displays, and greasy messy user fingers are just a few of the reasons that many restaurants prefer to use sealed keypads for user input. These keypads are called bump bars, so named because the term used in the industry to describe the removal of work items from the kitchen displays upon completion is “bump.” A sample bump bar is shown below

This project is to develop a new bump bar design that can be adapted for the differing requirements of various restaurant environments.



#### Initial Project Requirements (e.g. weight, size, etc.):

The bump bar design needs to accommodate enough buttons for all the common functionality as well as additional buttons that can be assigned to the most commonly used additional features in each unique environment. The required functionality will be provided at the start of the project.

The bump bar must be capable of withstanding typical restaurant kitchen environments such as heat, steam, grease, etc. It shall be capable of being dropped without damage. The number of keys must be optimized.



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**Expected Deliverables/Results:**

The deliverable shall be a fully functional prototype with operational manual.

**List here any specific skills or knowledge needed or suggested (If none please state none):**

None