"Marketing Spy"

PROJECT REQUIREMNTS DOCUMENT

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Modification History:

Version	Date	Author	Description
1.0	10/18/2014	T15	Initial Version

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1. Introduction

1.1. Project overview

In order to successfully study the interest of customers in the particular product, the electronic store will need a device that can recognize the frequency at that the product is picked up by customer during a certain period (a day, a week).

The purpose of this project requirement is to provide the technical specification to Contractor who will design, produce and test the device.

The user of this device will be the store staffs

Timeline:

Design approval:	Nov 5th, 2014
Final test:	Dec 2nd, ,2014
Product roll-out:	Dec 08th, 2014

1.2. Definitions, Acronyms and Abbreviations

Device/system	The equipment will be designed, produced by contractor
Product/item	The electronic items for sale in store
OSHA	Occupational Safety and Health Administration
Buyer	The electronic store

1.3. Communication

No action will be considered without written notice.

1.4. Location of Document

The current version of this document can be found on the T15's wiki https://projects.cecs.pdx.edu/projects/golriz-ece411/wiki

1.5. Target Audience

This document is intended for Buyer, Professor Mark Faust, Professor Andrew Greenberg, TA Cody Gabriel and project team T15 to agree on requirements for designing and producing the "Marketing Spy" device.

2. Requirements

2.1. General requirement

The scope of work of this project includes engineering design, manufacture, test and delivery of final system to the buyer.

Operational:

The device shall be operating in ambient temperature from 40^0F to 125^0F.

The device should be user friendly and safe for operation

The device shall be able to display any text, message in English.

The numerical information shall be in decimal number system.

The device should have low power consumption. Maximum power dissipation is 200mW

Not any special tool shall be required for system installation.

The operation of the system shall not have any effect to the performance of store's products. The system shall not make any sound or noise during its operation.

Safety

The device should meet the safety requirements and standards for using in office and store environment as per OSHA

Legal

The device must comply US pattern and copyright regulation.

Environment

The disposable batteries shall not be allowed to use in the system.

No special procedure is required for recycle or disposal of the system

Technical Support

The vendor shall provide technical support to the store for first 3 months after the system handled over.

The vendor shall provide the performance warrantee for the device and its component for first year of operation.

The components or/and any software used for building device should be supported by original manufacturer at least 2 years from the date device handed over to end user. No obsolete part or/and component is allowed to use for building the system.

Budget

The total cost for the system shall not exceed $200.

2.2. Specific feature and function

The device must instantaneously count up one if the displayed item picked up and display the cumulative count.

The device should be able to display the average time at that customer holds the product.

The device must be self-operated, e.g. no additional computer or any kind of computerized system will be required for its operation.

No additional software or/and any program is required for its start-up, boost or operation.

Each device must have its own detection function, no additional hardware required for this function.

The device must have its own display to show the cumulative count.

The display must be able to display the information up to 2 rows with 8 characters each at minimum

The device must have a reset button to reset the count when it needed.

The device must have the power on-off switch.

The device should be a portable and able to work continuously for 12 hours as minimum without recharging or/and changing battery.

Two following situations should be considered for a design to avoid miscounting: the displayed item is picked up by mistake and dropped back immediately or it will be dropped to wrong place

2.3. Required Documents

One set of user's operation and maintenance manual

The schematic diagrams.

The datasheet of main components

List of recommended spare parts if any.

Test documents

3. APPENDIX

The addition, change from previous version:

#	Previous version	Current version