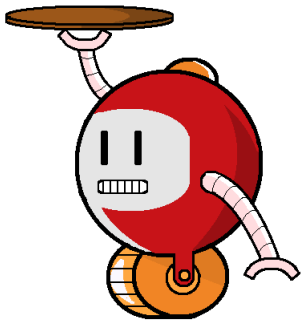

LazyBots

McMaster University

Project Goals

SE 4GA6 & TRON 4TB6

Group 9

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1 Revisions

Date	Revision Number	Authors	Comments
October 5th, 2017	Revision 0	Karim Guirguis David Hemms Marko Laban Curtis Milo Keyur Patel Alexandra Rahman	-
December 14th, 2017	Revision 1	Karim Guirguis David Hemms Marko Laban Curtis Milo Keyur Patel Alexandra Rahman	Made one of the extended goals a project goal.
February 25th, 2018	Revision 2	Karim Guirguis David Hemms Marko Laban Curtis Milo Keyur Patel Alexandra Rahman	Fixed layout and grammatical errors. Revised all project goals, specifically G6.

Table 1: Table of Revisions

2 Problem Statement

Many restaurants experience a rush of customers which can overwhelm serving staff as they juggle multiple tasks. Simple tasks such as getting drinks and refilling them can be costly, time wise, for a server and are often one of the first tasks overlooked. Thus leaving the customers unattended or with a feeling of neglect. Alfred is a serving assist that aims to remedy this problem by serving drinks to customers table-side. Alfred will arrive at the customer's table once an order has been placed and received, then will dispense the drink without the need to involve the server.

3 Product Purpose

Alfred will allow customers to order drinks through an application, after which Alfred will then navigate its way to their table to dispense the drinks ordered. Furthermore, Alfred will be able to identify objects in its path or tripping hazards and handle each scenario with the appropriate reaction. To ensure safety measures are met, Alfred will return to home base when the temperature of the liquids exceeds industry standard, the liquid supply levels are below a set amount or if the power supply is running low.

4 Project Goals that Constitute Success

The minimum criteria for success of this project are as follows:

- M1: Alfred will be able to receive drink orders from an interface.
- M2: Alfred will follow a predetermined path.
- M3: Alfred will be able to arrive at the table who has placed an order.
- M4: Alfred will dispense drinks autonomously.
- M5: Alfred will notify the user that a drink is ready.

5 Project Goals

The goals that constitute success are as follows:

- G1: Alfred will stay within the predetermined pathways.
- G2: Alfred will abide to the food safety standards.
- G3: Alfred will return to home base when power supply and supply levels are low as well as when food safety standards are not met.
- G4: Alfred will avoid obstacles and tripping hazards along pathways.
- G5: Alfred will reduce product waste and over-pouring.
- G6: Alfred will allow the users to create and modify restaurant layouts through an interface.

6 Extended Project Goals

The goals that will exceed the definition of success are as follows:

- E1: Alfred will be modular to allow integration of existing POS (point-of-sale) systems.
- E2: Alfred will be able to dispense correct amounts of liquid for different cup sizes.