**DISC CONTENT DESCRIPTION**

Project: Design an Autonomous Robot

Task: To design an autonomous robot that is capable of navigating to a predetermined position while avoiding obstacles and firing objects at two targets. This is to be done in the shortest time possible.

Document Version Number: 1

Date: April 12th 2015

Author: Eric Vuong

Contents

[Introduction 2](#_Toc416612299)

[File Description 2](#_Toc416612300)

[Final Product 2](#_Toc416612301)

[Weekly Progress 2](#_Toc416612302)

[4 documents 2](#_Toc416612303)

[Software Department 2](#_Toc416612304)

[Hardware Department 2](#_Toc416612305)

[Gantt Chart 3](#_Toc416612306)

[Tests 3](#_Toc416612307)

[Budget, Power Point, Progress Report 3](#_Toc416612308)

[Project Files Summary 3](#_Toc416612309)

[Video Demonstrations 3](#_Toc416612310)

[Poster 3](#_Toc416612311)

# Introduction

Hello Professor, welcome to Team 05’s DPM Project Winter 2015! In this Content, the folder organization is separated nicely so anything can be found easily.

# File Description

Upon opening this file, you will find 5 main folders: Final Product, Weekly Progress, Project Files Summary, Video Demonstrations, and Poster.

## Final Product

Here you will find the team’s final hardware and software design. The final LDD sketch and the latest version of commented code are included.

## Weekly Progress

Here you will find the team’s weekly document updates and its progress throughout the semester project. In each weekly folder (1 to 7), there will be 5 types of documents along with the weekly budget, meeting power point and progress report. In other words, ALL the documentation are organized properly and found in this folder.

### 4 documents

Here you will find the 4 main design documents (Capabilities, requirements, system and constraint documents), which has been updated weekly throughout the project as the team gains more knowledge and information for the project. Any changes in the design process, constraints, and requirements from client has been modified in these weekly folders.

### Software Department

Here you will find all the software related components of the project for every week. There will be codes posted by the software team if it’s ready for testing. There will be software architecture updates, such as the UML and the API. Also, any major changes in the software architecture will be reported in a document inside this folder also. Finally, please note that if a file has not been updated in a week, it will not be posted there. Thus, if you need the most updated document, please refer to **project files summary** in the tables of content.

### Hardware Department

Here you will find all the hardware related components of the project for every week. There will be hardware updates posted by the hardware team. Here is also where all the **LDD** files will be located. Each hardware change (addition, removal or modification of components) has also been documented in detail in Hardware Design Documents under Hardware Department. Here is also where you will find any material proposal for the project when the provided NXT kit doesn’t have the necessary components in the design of the robot.

### Gantt Chart

Here you will find all the weekly Gantt chart updates followed with a small documentation on the Gantt chart update either in the Weekly Progress Report or in the Gantt chart folder itself. Please note that the resources chart has had bugs for week 2-5, thus the Gantt chart for week 6 and week 7 (especially 7) has been modified drastically to reflect the team’s resources distribution along with the correct milestones and task dependencies update.

### Tests

Here you will find the record of all tests done in that particular week. There are different types of tests, Localization Test, Obstacle Avoidance Test, Simulation Test, Integration Test, Speed Test, Battery Test, Odometer Test, Odometer Correct Test, etc. (Each test topics will also have their Versions). Please note that not all tests are repeated weekly, thus the version number may not correspond to the week where it has been tested. To have a better idea of how much testing have been done, please refer to Project Files Summary to locate all tests done in all weeks.

### Budget, Power Point, Progress Report

In the same folder for each weekly files, there will be a budget excel sheet reflecting the work done by each member, the power point used for each meeting with the professor, and the team’s weekly progress report.

## Project Files Summary

This folder contains all the documents of all departments sorted by the type of document rather than weekly, in order to have an easier way to compare the document versions. Once again, please note that this folder does not track the time, but the document version numbers only and how much documentations has been done for each department.

## Video Demonstrations

Here you will find the video demonstration for the Pre-Beta Demo, Beta-Demo and final Competition video. Also, you will find videos used for the presentation on April 10th for the judges (Team 05 Robot Promotional video & Advanced Localization)

## Poster

Here you will simply find Team 05’s Poster.

Thank you.