

McGILL UNIVERSITY

ECSE 211: FINAL DESIGN PROJECT

Capabilities Document

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supervised by
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1 Summary

The purpose of this document is to try to identify and catalog the skill base (i.e. the resources) available to the team for solving the design problem. Note that this document would probably not exist in a normal engineering design office because the capabilities of the team members are usually known and they were why the team members were chosen. In this project, it is a little different and we will need to figure this out early on to be able to match tasks onto the resources available.

2 Task

Project: Robotic Player - Design Principle and Methods (ECSE 211) Final Project Task: Construct an autonomous robot that is capable of localizing its position on the field and able to figure out what position it plays (forward or defense). Is also capable of navigating itself in a 12X12 field without hitting obstacles. The instruction are received via WiFi.

3 EDIT HISTORY

3.1 Document Version Number

- 0.0.1: Version presented to Prof. Lowther on the 22/02/2017
- 0.0.2: Version presented to Prof. Lowther on the 06/03/2017

3.2 Edit history

1. 21/02/2017 (Nayem) Create basic document
2. 05/03/2017 (Philippe) Reformated the document in LaTeX.

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4 TEAM MEMBERS

Philippe Papineau Rami Djema Romain Nith Nayem Alam

U1 - Electrical Engineering U2 - Software Engineering U3 - Computer Engineering U1 - Electrical Engineering

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5 CAPABILITIES

For each team member, determine the level of software capability, the ability in electrical engineering, mechanical engineering, etc. Also, have they had any management experience? Do they like working with documents, etc.? This might be best presented in tabular format.

Capabilities Rankings: Basic Intermediate Advanced Capabilities Nayem Alam Julien Courbebaisse Ali Sharif Rami Djema Romain Nith Philippe Papineau Hardware Intermediate Intermediate Intermediate Intermediate Advanced Intermediate Software Basic Advanced Intermediate Advanced Basic Basic Management Advanced Intermediate Intermediate Basic Advanced Intermediate Documentation Advanced Intermediate Intermediate Intermediate Intermediate Advanced

6 POSSIBLE APPLICATION AREAS

In terms of the job in hand, which of the tasks and subtasks best suit each team member. Generating an initial list of this sort might make it easier to allocate resources to tasks during the project.

Name Nayem Alam Julien Courbebaisse Ali Sharif Rami Djema Romain Nith Philippe Papineau Roles - Project Manager - Documentation Helper - Software Lead - Testing Lead - Software Development - Software Development - Hardware Manager - Documentation Lead - Hardware helper

7 AVAILABILITY

Recognizing that team members have other commitments in other courses and outside of McGill, generate a table showing availability in each week. Mark down critical events such as midterms, major assignments, etc. This will be needed in generating the timeline for the entire project.

Refer to Availabilities Excel File (attached)

6.0 GLOSSARY OF TERMS

N/A