

## [Project Title (1 mark)]

| First Author Name                  | Second Author Name                 | Third Author Name                  |
|------------------------------------|------------------------------------|------------------------------------|
| B00xxxxxx                          | B00xxxxxx                          | B00xxxxxx                          |
| CS1106 Section x<br>e-mail address | CS1106 Section x<br>e-mail address | CS1106 Section x<br>e-mail address |

### Abstract

*The abstract is a brief summary of the entire report, briefly stating the purpose of the project, what was done in the course of the project and what the results were. The abstract should be limited to 100 words (2 marks).*

### Introduction

The Introduction sets the stage for the report. It should introduce the topic(s) and problem(s) at hand (**1 Mark**), outline what was done in greater detail than the abstract (**1 Mark**), and discuss the results of the project (**1 Mark**). A student, having read the introduction, should have a clear picture of the problem and what the project accomplished.

For example, your introduction should briefly describe the area of robotics, then give an overview of your project, including: the robot system that was used, the events in the robotics competition, the major problems encountered in the course of the project and the resulting solutions.

### Background

This section Background sets the context for the report. It describes previous work and concepts that were used in the project (**2 Marks**). This section will typically have quite a few citations because it discusses work, ideas, and concepts that preceded your project report.

For example, your background section should thoroughly describe the robot platform that was used, including its basic structures, the sensor capabilities, its mobility, and also the platform's limitations. This section should also describe features that are common to the three events. Lastly, you should discuss (and cite) any related work that you encountered while working on the project.

The content in this section typically comprises material compiled from other sources. Be sure to properly cite all material that you reference in your report.

### The Bulldozer course

This section answers several questions about your program for the bulldozer course. Namely, what is the problem being solved? How was the problem solved? And, why was this solution chosen?

The report must first describe the event and the particular challenges that it entails **(1 Mark)**.

The report must then describe your solution to the problem. It should describe the basic strategy of your solution and the tactics used to achieve it **(2 Mark)**. For example, in this case part of a strategy to avoid knocking down the walls of the arena is to keep track of where the Tribot is within it. This can be accomplished by hard-coding the measurements of the arena into your program.

Lastly, and most important, your solution must explain the assumption you make **(1 Mark)**, that is, explain what kind of situations your solution would not cover.

### **The Obstacle course**

This section describes the event, your strategy, and assumptions, just as in the previous section **(4 Marks)**.

### **Results**

Describes and analyzes the quality of your solutions. This section will be based on the competition that will take place at the end of the module and should describe how well your programs performed **(1 Mark)**, why the programs performed as well or as poorly as they did **(2 Marks)**, and how well your programs performed relative to other programs **(1 Mark)**. For example, your obstacle course program may have completed in 97 seconds, but this does not mean anything until you mention that only seven other programs completed this event, and that the times were 93, 96, 101, 102, 106, 120, and 130, indicating that your program was one of the better ones.

Use of tables and graphs to present your results is strongly encouraged.

### **Conclusion and Future work**

This is a summary of the report with particular emphasis of the results of the project **(1 Mark)**. Along with a summary of the results, you can also describe what else you would have liked to do with your project, how the project could be improved or extended, etc. **(1 Mark)**. This section provides the closing bracket to the report and complements the introduction. For example, the report should briefly state the purpose of the project, i.e., "We did ...". The report should then summarize your results, with focus on how well your programs did and any major difficulties that your programs encountered. Important ideas that were part of the solutions should be recapped here. Lastly, this section describes what should be done if more time to improve the programs was available.

### **References**

References contain a complete citation listing of other works that you referred to or used which includes Wikipedia (which you really should not use as an official source at this point). For this paper, use a formal format for references (as described further in the Paper Guidelines, see below for examples) and be consistent. **(1 mark)**

1. Adobe Acrobat Reader 7. <http://www.adobe.com/products/acrobat/>.
2. Anderson, R.E. Social impacts of computing: Codes of professional ethics. *Social Science Computing Review* 10, 2 (1992), 453-469.
3. How to Classify Works Using ACM's Computing Classification System. [http://www.acm.org/class/how\\_to\\_use.html](http://www.acm.org/class/how_to_use.html).
4. Klemmer, R.S., Thomsen, M., Phelps-Goodman, E., Lee, R. and Landay, J.A. Where do web sites come from? Capturing and interacting with design history. In *Proceedings of CHI 2002*, ACM Press (2002), 1-8.
5. Mather, B.D. Making up titles for conference papers. In *Proceedings of CHI 2000, Ext. Abstracts*, ACM Press (2000), 1-2.
6. Schwartz, M. *Guidelines for Bias-Free Writing*. Indiana University Press, Bloomington, IN, USA, 1995.
7. Zellweger, P.T., Bouvin, N.O., Jehøj, H., and Mackinlay, J.D. Fluid Annotations in an Open World. In *Proceedings of Hypertext 2001*, ACM Press (2001), 9-18.

Finally, there will be a mark for the overall impression, a good report gets **1 mark**, and an excellent report gets an additional **1 mark**.

**Report total: 25 marks**