Team 20

Lab number 5

Design Inspection

March 22nd, 2013

Version 1.0

By signing below, each group member approves of this document and contributed fairly to its completion.

Raymond Tang, Andrew McMillion, Archit Rupakhetee, Tyler Lenig

On our honors, as students of the University of Virginia, we have neither given nor received unauthorized aid on this assignment.

Raymond Tang, Andrew McMillion, Archit Rupakhetee, Tyler Lenig

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# **Inspection Purpose**

The purpose of this document is to describe the methodical approach used to ensure consistency and correctness of the Design Document created to describe the implementation of the control-station software platform and its relationship to the robot’s on-board software.

# **Inspection Details**

# The inspection took roughly one hour of work and was given to Andrew McMillion to complete. However, it was not without correspondence with the rest of the team that the inspection was completed and the Design Document updated to reflect the findings of the inspection.**Inspection Process**

I began by reading through the Design Document carefully, correcting small spelling and grammar errors as I went as well as generally making the document read better. By tackling typographical errors first, I was able to better my understanding of the document. General mistakes that needed correcting were:

* consistency between class names
* smoothing out parallel structures
* adding/adjusting punctuation
* eliminated redundant word usage and unnecessary verbiage

Under the BaseStation class in the UML class diagram, the methods MoveForward and MoveBackward accept only a *radians* parameter – do such methods not include some sort of speed parameter?

The UML Class Diagram was riddled with spelling errors and inconsistencies. However, inspection determined that its function was fine, with classes’ functions and relationships making sense and performing consistently with the Design Document. Revision to correct typographical errors is enough for the Class Diagram to pass inspection.

For the Concurrency Diagram, why do the Sensor classes need to send information *to* the Bluetooth class? This seems inconsistent with the relationships illustrated in the Class Diagram.

# **Inspection Results**

After inspection, the Design Document certainly reads better and has a greater FPI. More importantly, though, consistency errors have been alleviated to minimize confusion. The Design Document is now more professional in appearance and reading and is more effective at describing the implementation we have in mind.