April 26, 2013

Team 19 Phase 3 of Inspection

**Laboratory # 8: Inspection**

**Morgan, Laura**

**Miaw, Jireh**

**Hauser, Steven**

**Dworak, Catherine**

**Bertoglio, David**

***Work Product***

**Documentation of Phase 3 of Inspection of Group 20’s source code**

***Document Revision Information***

**April 26, 2013 – Document created, Phase 3 inspection documented**

**Approval Sheet**

**All group members whose names are listed below approve of the document and contributed fairly.**

**Member Names**

**Morgan, Laura**

**Miaw, Jireh**

**Hauser, Steven**

**Dworak, Catherine**

**Bertoglio, David**

By this approval sheet we attest to the quality and completeness of Phase 2 of the inspection.

**Pledge**

**On my honor, as a student, I have neither given nor received unauthorized aid on this assignment.**

**Names**

**Morgan, Laura**

**Miaw, Jireh**

**Hauser, Steven**

**Dworak, Catherine**

**Bertoglio, David**

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## Inspection Schedule

Phase 3 – Functional Correctness

Between Wednesday April 24 and Friday April 26

Inspector – Laura, David, Steven, Jireh, Catherine

## Checklists Used

### Phase 3

Functional Correctness (single inspector).

* Methods
  + All methods return what they are supposed to return
  + All methods execute what they are supposed to execute
* Variables
  + All variables exist for the purpose for which they are named
* All specified functionality is implemented
* Implements communication protocol fully
  + sends acks, command and error message to the robot
  + receives and processes properly formed messages
  + Handles checksum generation and validation correctly according to communications protocol.

## Results of Inspection

* Switch statements
  + Switch statements used rather than if-else-if blocks
    - *BaseStation lines 72-92: If-else-if block should be switch-case block*
    - *GUI lines 468-700: if-else-if blocks should be switch-case blocks*
* Variables
  + All variables initialized prior to use
    - *GUI lines 246 & 247: txtConnectionButtonOn and txtConnectionButtonOff background set before textFields initialized (lines 257 and 265)*
    - *GUI lines 525, 543, 560, 577: wIsPressed, aIsPressed, sIsPressed, dIsPressed used in conditionals before initialized – consider initializing them all to false in initialize()*
    - *GUI line 652: Boolean isSent never initialized*
    - *GUI line 470: int speed used before initialized on line 475*
  + All variables declared at top of function
    - *BaseStation line 71: String message declared in middle of function*
    - *BaseStation line 216: byte[] checksum should be declared at top of function*
    - *GUI line 643: Boolean valueHolder declared twice (also declared on line 25)*
  + All loop variables initialized just before loop
    - *BaseStation line 30: Initialize readFlag on line 62 (just before loop) rather than at declaration*
  + No variables initialized that are not used
    - *GUI line 28: private static GUI window never used*

## Observations

Phase 3 of the inspection has been completed. Defects sent to Team 20 on 4/26/2013.

Note: Auto-generated GUI code was not inspected as thoroughly, as directed by Instructor.