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April 15, 2013

## 2 Team 19 Phase 1 of Inspection

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### 3 Laboratory # 8: Inspection

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5 Morgan, Laura

6 Miaw, Jireh

7 Hauser, Steven

8 Dworak, Catherine

9 Bertoglio, David

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### 12 *Work Product*

13 Documentation of Phase 1 of Inspection of Group 20's source code

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### 15 *Document Revision Information*

16 April 14, 2013 – Document created, Phase 1 inspection documented

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## 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 1 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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96	<b>Inspection Schedule</b>
97	Phase 1 – Internal documentation & source-code layout
98	Monday, April 15 – 4:00 p.m. during in-lab.
99	Inspector – Catherine
100	<b>Checklists Used</b>
101	<b>Phase 1</b>
102	Internal documentation & source-code layout (single inspector).
103	
104	• proper use of indentation for “levels” in code
105	• proper use of tabbing when declaring variables
106	• existence of columns of related items
107	• existence of white space (spaces after commas, variables, between methods
108	etc.)
109	• use of new line when line is too long
110	• consistency followed with use of braces {} throughout
111	• sparing use of comments; only used to document unavoidable complexity
112	• identifiers
113	○ meaningful – names indicate purpose
114	○ underscores used as separators
115	○ capitalization of types, Classes
116	• constants
117	○ mixed case capitalization
118	○ no magic numbers (no embedded literals or constants)
119	○ only symbolic constants used
120	○ symbolic constants in all capital letters, separated by underscores
121	○ avoid abbreviations in names
122	• methods
123	○ mixed case for name
124	○ abbreviations avoided
125	○ names indicate function
126	○ “get/set” used where attribute is accessed directly
127	○ “is” used for Boolean methods
128	○ “find” used for methods that look something up
129	• variables
130	○ name should reveal purpose and/or type
131	○ plural if representing group of objects
132	○ iterator variables consistent (for example: i and j)
133	○ abbreviations avoided
134	<b>Results of Inspection</b>
135	
136	• proper use of indentation for “levels” in code
137	<i>line 201, else should be on next line</i>

- existence of white space (spaces after commas, variables, between methods etc.)
  - line 58, extra space between (0, 3)*
  - in GUI, spaces between "import" lines*
  - white space in beginning public class GUI*
- use of new line when line is too long
  - line 82 does not need to be on new line (" + e.toString());"*
- consistency followed with use of braces {} throughout
  - should check consistency. Starting line 199 you being to put { on the same line as the method declaration and the if statement, rather than the next line. These braces should be moved to the next line. Check methods: getTouchValue(), verifyChecksum(), getChecksum()*
- sparing use of comments; only used to document unavoidable complexity
  - comment on line 34 runs off screen*
  - comment on line 53 doesn't clarify code*
  - unneeded code should be removed lines 95-100*
  - comments in moveForward(), moveBackward(), turnLeft(), turnRight(), turn180(), stop() most likely unnecessary*
  - in GUI, comment line 20*
  - in GUI, line 163, 362, 460, 495, 596, 632, 637, 650*
- constants
  - in GUI class, all private variables should be before public*
    - no magic numbers (no embedded literals or constants)
    - in setSpeed() what are numbers 10 and 100?*
- methods
  - methods between line 163 and 181 – unimplemented or unnecessary?*
    - abbreviations avoided
    - getUltraValue() – consider changing to getUltrasonicValue()*
    - getMicroValue() – consider not abbreviating*
- variables
  - name should reveal purpose and/or type
  - in method setSpeed, int s does not reveal purpose*
  - abbreviations avoided
  - variable "ret" – abbreviated for return? name does not indicate purpose, in methods: establishConnection(), getCheckSum()*

## Observations

Phase 1 of the inspection has been completed. Defects sent to Team 20 on 4/15/2013.

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