March 24, 2013

Team 19 Design Document Verification

**Laboratory # 5: Design**

**Morgan, Laura**

**Miaw, Jireh**

**Hauser, Steven**

**Dworak, Catherine**

**Bertoglio, David**

***Work Product***

**Verification of the Design Document**

***Document Revision Information***

**3/24/13 Document created**

**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**

**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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## Time and Duration

10:15 pm 3/24/2013

## Attendees

Catherine Dworak

## Roles

Catherine Dworak – use the checklist to verify the design document

## Check Lists Used

The following check list was used to inspect the document:

Are the following properties and qualities included?

* comprehensive document structure
  + face page - yes
  + approval - yes
  + contents - yes
* high-level system architecture overview
  + in natural language - yes
  + liberal use of graphics – graphics included in following sections
* UML class diagram notation
  + all classes are identified, included subclasses - yes
  + relationships between classes - yes
  + links - yes
  + fields and field types for classes - yes
* UML sequence diagram
  + objects - yes
  + function calls - yes
* UML state machine
  + start state - yes
  + states - yes
  + transitions
    - action – no actions necessary
    - event - yes
    - guard conditions - yes
* concurrent structure of the design
  + in graphical notation – yes
* class interfaces
  + written in Java - yes
  + comments that document design decision that each class is hiding - yes
  + functions included
    - comment explaining purpose of function - yes
    - comment explaining what each parameter is for - yes
  + fields included - yes
  + private data member
    - constructors - yes
    - destructors – not needed in java
    - getter methods – may be necessary to add more later
    - setter methods – may be necessary to add more later
* communication
  + are design decisions associated with communications protocol suitably hidden - yes
  + was the protocol design included - yes
* natural language text
  + necessary - yes
  + concise - yes

## Defects Located

Defects were located in the UML class diagram, the UML Sequence Diagram, and the class interfaces

## Corrective Action Required

Changes to be made in each of the classes and the interface:

Driver

* in setSpeed parameter speed must be changed to newSpeed
* in read parameter sensNum must be changed to sensorNumber

Activator

* NXTComm field type must be changed to NXTConnection

MessageHandler

* verifyCheckSum must be made private and changed to verifyChecksum
* getCheckSum must be made private and changed to getChecksum
* add method private method Boolean isNumeric(String number)

All field types of arrays must be changed to ArrayLists

## Results of Follow Up

All changes that were identified in the above section (Corrective Action Required) have bee corrected.