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Team 19 Design Document

**Laboratory # 5: Design**

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***Work Product***

**Description of the design of the robot on-board software, including high level description, UML class and sequence diagrams, state diagram, concurrent structure, and class interfaces in Java**

***Document Revision Information***

**3/22/2013 – Design Document Created**

**Approval Sheet**

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

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**Pledge**

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

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# High-level system architecture

The robot on-board software will be object-oriented. It will consist of 3 classes, Activator, Driver, and MessageHandler. The Activator will contain instances of Driver and MessageHandler. Driver and MessageHandler will not be able to access each others’ fields and methods directly; any interaction between Driver and MessageHandler must go through the Activator class.

Activator:

The activator class contains the main method. This class is the only one that deals with the Bluetooth connection. It will contain fields and methods to create the connection and check if the connection is there. It creates 3 threads: timer, read, and output. The timer thread is used to determine how much time has elapsed between sending the last message from the on-board system and

# Static structure

# Object interaction structure

# Concurrent structure

# Class interfaces