The objective of the Project 2 Design Document is to fully describe the implementation of the system prior to writing any code. The Design Document is a system- and class-level view of the implementation focusing on how the code is implemented. Recall that what the system does was described in the Requirements Document.

The approach of the description is to first, include the class diagram from the Requirement Document to set context. Next, architectural models are included to describe both physical software and physical hardware deployment. Finally, the project is decomposed into individual classes with a thorough description of each class’s constituents.

As always, the content of the design document is described on the following page(s). In general, the form is to first describe the notation of the diagram type. Next, the diagram for the group’s specific application is given. Finally, the diagram for the system is textually described in full.

Notes:
- Approximately 3/4 of the points are awarded for content and 1/4 of the points are awarded for form.
- Document must describe behavior of at least two classes using Statechart Diagrams.
- Document must describe behavior of at least four operations using Activity Diagrams.
Project 2 Design Document Grading Template

Introduction (can be cut and paste from Proto2 Req Doc) 5 points

Overview

System Level Design

Structural Model (can be cut and paste from Proto2 Req Doc) 45 points
- Notation Description 5 pts
- System Level Class Diagram 5 pts
- Class Diagram Description 5 pts

Software Deployment
- Notation Description 5 pts
- Component Diagram 5 pts
- Component Diagram Description 5 pts

Hardware Deployment
- Notation Description 5 pts
- Deployment Diagram 5 pts
- Deployment Diagram Description 5 pts

Class Level Design 45 pts

Class
- Field Description 2.5 pts
- Activity Diagram Notation Description 2.5 pts
- Class 1..n 40 pts

Name
Description/Responsibilities
Behavioral Model (if behavior is complex enough to justify)

Attributes
- Attribute Dictionary Entry
- Attribute 1..m
  - Name
  - Description
  - Type (e.g., int, real, long-real, enumerated, …)
  - Units (e.g., deg F, meters, …)
  - Range
  - Resolution

Operation
- Operation Dictionary Entry
- Operation 1..p
  - Name
  - Description
  - Output (must have Attribute Dictionary Entry)
  - Input (must have Attribute Dictionary Entry and ref to owner)
  - Behavioral Model (if behavior is complex enough to justify)

References 5 points