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Team 19 Work Breakdown Structure

Laboratory # 3: Implementation Planning

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Work Product

A list of project milestones and the subtasks associated with each one.

Document Revision Information

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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
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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
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Contents

Work Breakdown Structure

Lab 2: Specification

- Verify specification of base station control software using verification checklist
  - Create verification document
  - Review and revise design documentation for comprehensiveness and consistency
- Critique Onboard and Debugger Specification developing questions based on specification document
  - Create list of good points in the specification
  - Create a list of questions about the specification

Lab 3: Implementation Planning

- Develop milestones list
  - Create document for milestones
  - Create milestones that are binary and verifiable
- Develop COCOMO cost estimation
  - Use the intermediate organic model
  - Choose effort adjustment attribute values
- Develop Process Report documenting work thus far, and plans for future improvement
  - Create process report document
  - Create list of accomplishments and problems
  - Write a process refinement summary

- Create schedule for future work
  - Create document for schedule
  - Add dates to milestones
- Determine new risks and decide how to resolve them
  - Create a new risks document
  - Create a list of at least 3 new risks and resolutions to them
- Review schedule and develop gantt chart based on schedule
  - Add tasks to the schedule and create a gantt chart

Lab 4: Development Tools and Communications Protocol

- Develop support testing tool for use in development
- Review draft of communications specification
- Develop detailed and precise communications protocol specification document
  - Revise first draft of Communications Protocol Specification
  - Finalize Communications Protocol with Group 20

Lab 5: Design

- Develop preliminary design for robot
  - Develop initial design possibilities (minimum of 3)
  - Develop criteria for each design (minimum of 3)
  - Develop alternative designs in respect to criteria
  - Decide on a design
- Develop design documentation for the design
  - Create document for the design
- Verify design through inspection
  - Create verification document
  - Review and revise design documentation for comprehensiveness and consistency

Lab 6: End-to-End Prototype

- Develop end-to-end prototype to demonstrate functionality
- Develop test for end-to-end prototype that demonstrates functionality between on board software and base station control software
  - create goals for test
  - carry out the test
  - document results
- Develop List of changes and fixes for functionality that failed test
  - develop changes and fixes to be added to the prototype
- Develop documentation to describe test and its results
  - create documentation report for the test and the prototype

Lab 7: Enhanced Prototype

- Develop improvements for end-to-end prototype
  - Create list of areas for improvement (minimum of 3)

- Develop enhanced prototype that includes fixes to any functionality that failed integration test, and add improvements to previous design
- Create further integration tests using the Enhanced prototype (minimum of 2)

  - create goals for test
  - carry out the test
  - document results

Lab 8: Inspection

- Develop plan for inspecting base station control software
  - create documents including checklists for the necessary features and characteristics
- Prepare on board debugger for inspection
  - plan for issues that may be encountered
- Inspect the base station control software following created plan

    - Review and revise design documentation for comprehensiveness and consistency

- Develop Documentation on the results of the inspections
- Finalize prototype into deliverable system
    - implement changes to solve inspection problems

Lab 9: System Delivery

- Demonstrate system to customer
- Have deliverables signed off by customer