UQ MARS Club Project:
[Project Title] v0.1

Project Overview

Subsystem: [Subsystem Name]
Authors: Oscar Lloyd (2025), [Other Names (2025)]
Mentor(s): [Mentor Name(s)]
Discord Help: #[Project-Title]
Time Estimate: ~6 Months

Project Difficulty:

Mechanical - ★☆☆☆☆
Electrical - ★☆☆☆☆
Software - ★☆☆☆☆

Project Context

[Brief description of the project, its purpose, and why it is relevant. Explain its modular nature, how contributors can participate, and the long-term goals.]

Getting Started Resources

- [Link to GitHub Repo with documentation on existing work completed so far.]
- [Include a link(s) to the most relevant UQ MARS Individual Projects and Systems Projects.]
- [Information on collection and returning of physical resources.]
- [Any other relevant resources such as examples or guides.]

Project Objective

By the end of this project, the team will have:

- [Main project goal, e.g., restore, upgrade, or build a system].
- Develop hands-on experience in [list key disciplines].
- Provide a structured project where members can contribute at any level.
- Maintain clear documentation for long-term sustainability.

Project Structure & Contribution Guide

This project is designed to be modular, with members contributing at different levels.

1. **Check Current Progress** – Review documentation and recent updates.
2. **Choose a Task** – Select an area of interest from ongoing sub-projects.
3. **Coordinate with the Team** – Discuss your approach and avoid redundant work.
4. **Contribute & Document Your Work** – Ensure future members can build on past efforts.

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Project Requirements

In Scope:

- [List clear and specific tasks or components of the project that are in scope.]

Out of Scope:

- [List elements explicitly not covered in the project, to clarify boundaries.]

Functional Requirements and Constraints

Functional Requirements:

- [List the features or capabilities the project must have.]

Specifications/Constraints:

- [List specific technical or design constraints, e.g., weight limits, dimensions, cost considerations, etc.]

Project Workflow and Phases

Phase 1: Planning and Conceptualisation:

- Define the overall goal and break the project into smaller sub-projects.
- Identify existing resources, previous work, and key challenges.
- Establish documentation and initial task lists.

Phase 2: Subsystem Development:

Work on individual sub-projects in parallel, focusing on key areas:

- [Subsystem Name]: [Description or task, e.g., "Design and assemble the chassis."]
- [Subsystem Name]: [Description or task, e.g., "Develop the motor controller circuit."]
- [Subsystem Name]: [Description or task, e.g., "Program the basic drive code."]

Phase 3: Integration and Assembly:

- Combine completed subsystems and test for functionality.
- Identify and resolve compatibility or performance issues.
- Document progress for future contributors.

Phase 4: Testing and Optimization:

- Implement refinements and additional features.
- Optimize performance based on testing feedback.
- Continue documentation to support ongoing work.

Phase 5: Finalisation and Presentation:

- Wrap up major tasks and confirm project stability.
- Create a handover guide for future contributors.
- If applicable, plan next steps or expansion opportunities.

Additional Considerations

- **Cost Efficiency:** Aim to minimise project costs while meeting requirements.
- **Manufacturability:** Ensure the design can be realistically manufactured with available tools.
- **Aesthetics:** Consider how the final product will look and align with the project goals.

Deliverables

- [List the specific items to be delivered at the end of the project, e.g., working prototype, design documentation, etc.]

Mentor Notes

- [Include any additional advice or important information for the project team.]
