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Group 18: Mars Rover Project Report

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# Contents

<b>1</b>	<b>Project Management</b>	<b>2</b>
1.1	Conception and Initiation . . . . .	2
1.2	Definition and Planning . . . . .	2
1.3	Implementation . . . . .	2
1.4	Performance and Control . . . . .	2
1.5	Project conclusion . . . . .	2
<b>2</b>	<b>Structural design</b>	<b>3</b>
<b>3</b>	<b>Rover Submodules</b>	<b>4</b>
3.1	Command . . . . .	4
3.2	Control . . . . .	4
3.3	Vision . . . . .	4
3.4	Drive . . . . .	4
3.5	Energy . . . . .	4
3.6	Integration . . . . .	4
<b>4</b>	<b>Project Issues</b>	<b>5</b>
<b>5</b>	<b>References</b>	<b>6</b>

# 1 Project Management

The project team utilised the Project Management Institute's 5 Phases of Project Management <sup>1</sup> as a guide to ensure all aspects of project planning and management are captured in the team's project management approach.

The approach is split into 5 stages which combines to form a robust project management system.

## 1.1 Conception and Initiation

**Project definition:** Design and build a rover system that has autonomous capabilities to detect, avoid and transmit the locations of the obstacles i.e. coloured balls to a server that users can interact with.

**Project requirement:** The rover system is split into 5 modules, each with its own requirements:

- Command:
  - Establish and maintain bilateral communication with Control module
  - Display rover sensor data
  - Enable users to navigate the rover
  - Plot a map of the locations of the obstacles encountered by the rover
- Control:
- Drive:
- Energy:
- Vision:

## 1.2 Definition and Planning

## 1.3 Implementation

## 1.4 Performance and Control

## 1.5 Project conclusion

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<sup>1</sup>PMI: <https://www.smartsheet.com/blog/demystifying-5-phases-project-management>

## 2 Structural design

## 3 Rover Submodules

3.1 Command

3.2 Control

3.3 Vision

3.4 Drive

3.5 Energy

3.6 Integration

4    **Project Issues**

## 5 References