Project	Project Manager	Date
Prediction of Brake Pad Wearout	Muhammad Adam Hafizi Bin Hashim Tee	29th May 2023

Justification
This project aims to make effective strategic decisions regarding company policy. By analyzing data and conducting discussions, the team seeks to contribute to better company policy decisions.

Scope Description	
In Scope	Must (M), Should (S), Could (C), Won't (W)
• Collecting Brake System Sensor Data (M) • Creating User Interface for Data Visualization (S)	• Important for developing predictive models. • It is critical that people interact with the prediction system.
Out of Scope	Must (M), Should (S), Could (C), Won't (W)
• Integration with Specific Vehicle Models (C) • Real-Time Monitoring Capabilities (W)	• It is not required for the basic predictive functionality. • Due of time and budget constraints.

Business Objectives
• Reduce vehicle downtime due to brake system failures. • Improve overall vehicle safety. • Enhance maintenance planning and cost-effectiveness.

Project Deliverables
• Brake system sensor data collection system • Developed machine learning models for wear-out prediction • User interface for data visualization • Wear-out prediction reports

Project Exclusions
Updates to the hardware or firmware of the braking system

Constraints
• Budget constraints for research and development • Due to project deadline time restrictions

Assumptions
• Historical brake system data is available for study. • Access to computational resources required for model development

Cost Estimate				
WBS Item	Estimated Cost	Actual Cost	Cost Until Completion	Variance
Initiation	375000	-	-	-
Hardware	55000	-	-	-
Software	80000	-	-	-
Testing	12000	-	-	-
Training & Support	191500	-	-	-