Team ID: **FE24\_324\_02**

Team Name: **Team Monke**

Team Members: **Lim Jun Hong David**, **Chong Qi Yuan**, **Sachin Ilangovan**

team monke engineering journal

WRO Future Engineers (FE)

ABSTRACT

The purpose of this competition is to design, fabricate, assemble, program, integrate and operate a self-driving car using computer vision.

This vehicle will be made using Raspberry Pi as its main controller and other off the shelf electronic components. The vehicle will also be operated as a steering robot, similar to real life cars.

Upon completion of this project, the vehicle should be able to navigate effectively between obstacles using sensor fusion and computer vision.

A copy of this Engineering Journal can also be found on [GitHub](https://github.com/David205k/SPRITE_WRO_FE_2024_Team_Monke)

Other notes that we took are also found in the doc/ subdirectory.

Contents

[Introduction 4](#_Toc175145379)

[System Architecture 5](#_Toc175145380)

[Hardware 5](#_Toc175145381)

[Software 5](#_Toc175145382)

[Development Process 5](#_Toc175145383)

[Results 6](#_Toc175145384)

[Conclusion 7](#_Toc175145385)

[References 8](#_Toc175145386)

[Appendix A 9](#_Toc175145387)

1. **Introduction**
2. **Design**

* **Hardware Overview**
* **Mobility Management**
* **Power and Sense**
* **Obstacle Management**
* **Code Style Guidelines**

1. **Fabrication**
2. **Assembly**
3. **Programming**
4. **Final Build**
5. **Conclusion**

# Introduction

# System Architecture

## Hardware

## Software

# Development Process

# Results

# Conclusion

# References

# Appendix A