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School of Electrical Engineering, Computing and Mathematical Sciences

Project Report

MXEN2003 – Microcontroller Project

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# Project Overview

Overview of the project’s requirements and constraints

# The Solution

Description of the system designed to complete the project

Things to include:

Fully labelled circuit diagrams for each electronic sub-system

• Any relevant calculations for key parameters (such as PWM base frequency, duty cycle, joystick mixing)

• One or more flowcharts showing the flow of program control (the flowcharts should be presented such that the program logic is apparent to the reader as easily as possible)

• A description of the logic employed in the autonomous navigation (where this was attempted), preferably in an easy to read graphical form (flowchart or state transition diagram): note this logic should be described even if there were limited or no opportunities for testing

• An outline of the communication protocol implemented

## Calculations

## Tests

# Performance Review

Reflect on the performance of the robot, outlining the system components which worked well or not, and highlighting any improvements which could be made to the system. (elaborate for groups of three)

# References

1. Reference Guide, V 11.29.2023 , IEEE Publication Operations, Piscataway, NJ, USA, 2023. Available: http://journals.ieeeauthorcenter.ieee.org/wp-content/uploads/sites/7/IEEE\_Reference\_Guide.pdf