10/24/2017

Line Following Robot

COMPSYS 301 Design Project

Sylvain Bechet, Savi Mohan, Ira Syamira Sukimin, Mark Yep

GROUP 6

Abstract

Contents

[Introduction 1](#_Toc495928817)

[Design Considerations 1](#_Toc495928818)

[Design Decisions 1](#_Toc495928819)

[Verification 1](#_Toc495928820)

[Validation 1](#_Toc495928821)

[Testing 1](#_Toc495928822)

[Software 1](#_Toc495928823)

[Appendices 1](#_Toc495928824)

# Introduction

# Design Considerations

## Analogue Design

## PCB Design

## Software Design

# Design Decisions

## Analogue Design

## PCB Design

## Software Design

# Analogue Verification

# Analogue Validation

# Analogue Testing

# Software

## Motor Control

## Maze Algorithms

## Testing

# Appendices

## Datasheet

## Contributions

### Project

* *Sylvain:* Analogue Design, Verification, Validation, Testing, PCB Design, robot benchmark testing.
* *Savi:* A\* MATLAB code, A\* C code, DFS C code, Robot Distance and Speed Algorithms, Software Testing.
* *Ira:* Analogue Design, Maze and Benchmark Turning Algorithms, Maze Turn Following Algorithms.
* *Mark:* Software Motor Control, PCB Construction, Maze Turn Following Algorithms.

### Report

* *Sylvain:* PCB Design Considerations, PCB Design Decisions, Analogue Verification (LTSpice), Analogue Validation (Breadboard)
* *Savi:* Software Maze Algorithms, Software Testing, Datasheet
* *Ira:* Analogue Design Considerations, Analogue Design Decisions, Software Motor Control, Abstract
* *Mark:* Software Design Decisions, Software Design Considerations, Analogue Testing (PCB), Introduction