ELE4307

Real-Time Systems

Assignment 2

Student name: Kate Bowater

Student number: U1019160

Contents

[Introduction 3](#_Toc170216176)

[System Design 3](#_Toc170216177)

[Testing Results 3](#_Toc170216178)

[Appendix 3](#_Toc170216179)

# Introduction

This report documents the design of a C program which simulates a pick and place machine for assembly of Surface Mount Technology (SMT) based Printed Circuits Boards (PCBs). The program includes a controller and a simulator of which synchronization and inter-process communication between the two are the focus.

# System Design

Design choices, particularly with respect to the order of the process spawning, inter-process communication and synchronization.

# Testing Results

Test cases and results

# Appendix

Program listing