

# ECE354: RTX Project Final Report

Ben Ridder - brridder  
Casey Banner - cccbanne  
David Janssen - dajjanss

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# Chapter 1

## SOFTWARE DESIGN

### 1.1 INTRODUCTION

### 1.2 GLOBAL INFORMATION

### 1.3 PRIMITIVES

### 1.4 PROCESSES

### 1.5 SOFTWARE INTERRUPT HANDLERS

### 1.6 HARDWARE INTERRUPT HANDLERS

### 1.7 HOT KEYS

A total of five hot key commands were implemented to assist in debugging and testing of the system and user processes. A hot key function was used to interpret the inputted command from the UART interrupt process. The interrupt process checks the first character for an exclamation mark ('!') and calls the hot key function directly with the input string as a parameter. See Table 1.1 for a summary of the hot key strings and descriptions.

Table 1.1: Hot Keys and Descriptions

Hot Key Command	Description
!RQ	Print ready processes and priorities
!BMQ	Print processes blocked on memory
!BRQ	Print processes blocked on receiving messages
!FM	Print the current number of free memory blocks
!M	Print the last $i$ messages sent where $i$ is the debug message log size

### 1.8 INITIALIZATION

### 1.9 IMPLEMENTATION

## Chapter 2

# MAJOR DESIGN CHANGES

## Chapter 3

# MEASUREMENTS

## Chapter 4

# LEASONS LEARNED