



BEng Project Interim Report

Dynamic Modelling of a Continuum Robotic Snake-arm and its Performance Evaluation by Analysing Robustness

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Abstract

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Chapter 1

Introduction

1.1 Description and Motivations for the work

(Advantages if this robot): - can access remote areas (slender or heavier payload) - has no electronics in the robot itself makes it access hazardous environments with no issues (easy risk assessment) benign - high data quality

1.2 Aims and Objectives

1.3 Literature Review

1.4 Approach

Chapter 2

Mathematical Modelling

2.1 Understanding the system

2.2 Kinematic Modelling

2.3 Dynamic Modelling

2.4 Testing the model behaviour

2.5 Discussion

Chapter 3

Initial Simulation Results

Chapter 4

Conclusions

4.1 Discussion of Progress

4.2 Failure Risk Assessment

4.3 Safety Risk Assessment

4.4 Additional Work to complete goals