

# **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**