



University of Glasgow | School of  
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## Visual Control of a Hexapod Robot

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## **Abstract**

We show how to produce a level 4 project report using latex and pdflatex using the style file l4proj.cls

## Education Use Consent

I hereby give my permission for this project to be shown to other University of Glasgow students and to be distributed in an electronic format. **Please note that you are under no obligation to sign this declaration, but doing so would help future students.**

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# **Chapter 1**

## **Introduction**

### **1.1 Motivation**

### **1.2 Software**

#### **1.2.1 ROS**

### **1.3 Hardware**

#### **1.3.1 Hexapod**

#### **1.3.2 RGB-D Sensor**

## **Chapter 2**

# **Background**

## **Chapter 3**

# **Requirements**



## **Chapter 4**

# **Architecture**

### **4.1 Nodes**

### **4.2 Packages**

### **4.3 Topics**

## **Chapter 5**

# **Hardware Interaction**

### **5.1 Servo Driver**

#### **5.1.1 Protocol**

### **5.2 Limb Controller**

### **5.3 Limb Calibration Tool**

#### **5.3.1 Usage**

## **Chapter 6**

# **Locomotion**

### **6.1 Tripod Gait Walker**

### **6.2 Joystick Controller**

## **Chapter 7**

# **Sensing**

### **7.1 Camera Driver**

### **7.2 Visual Odometry**

### **7.3 Environment Mapping**

a random graph in DIMACS format with vertices numbered 1 to  $n$  inclusive. It can be run from the