



**Glovesy**

**BY**

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**A functional specification document**

**As a requirement for CA400**

**Dublin City University (DCU)**

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Project Title	Glovesy
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Field of Study	Computer science
Project Advisor	David Sinclair
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## ABSTRACT

Glovesy is a wearable computer interfacing device in the form of glove which will allow the user to interface with their computer by using custom macros, or use the device for hand-tracking in VR or AR applications.

**Keywords:** : Wearables, human-computer interfacing, VR, AR, Arduino

## **ACKNOWLEDGEMENTS**

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# Introduction

Glovesy is a wearable device which will allow the user to interface with their computer, either by using user-defined macros, which will be set up using our program which will allow a number of gestures do be defined to certain actions within the pc, or by allowing the user accurate hand and finger tracking for use in Virtual and Augmented Reality.



# General Description

## 0.1 Product / System Functions

Glovesy is a wearable human/computer interacting device, which will allow users to interact with their pc in a number of different ways, for different scopes. The primary focus of the device, will be to allow the user to set up macros, or certain movements or gestures, which the computer will recognise as a specific command, thereby allowing ease of use. Another function of the device will be to track user hand and finger movements for increased accuracy and control in VR applications, since the device is so low profile, as opposed to current VR controllers which tend to be bulky, handheld devices.

## 0.2 Constraints

There are a number of constraints that we foresee will have some impact on the development process of this project.

- **BlueTooth:** We can imagine that there may be some problems with connectivity over bluetooth.
- **Distinguishing Gestures:** It may be challenging to distinguish hand movements between general movement and purposeful gestures.
- **Application Support:** It could be difficult to set up programs to use the device, as, particularly in games, there may be different controls that are pre-defined.

# **Functional Requirements**

# PRELIMINARIES

## 0.3 Insert Section Title

**Definition 0.1.** *Insert Definition*

**Lemma 0.2.** *Insert Lemma*

**Theorem 0.3.** *Insert Theorem*

**Proof.** Insert Statement of Proof

□

**Example 0.4.** *Insert Example.*

**Solution.**

Solution for the Example

◇

**Corollary 0.5.** *Insert Corollary*

# **REVIEW OF LITERATURE**

## **0.4    Insert Section Title**

### **0.4.1    Insert Subsection Title**

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### **0.5.2    Insert Subsection Title**

# Chapter 1

## MAIN RESULT

Insert Text

**Theorem 1.1.** *Insert Theorem*

**Proof.** Insert Statement of Proof

□

## **Chapter 2**

# **CONCLUSION AND DISCUSSION**

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## **REFERENCES**

Insert References