#### ÉCOLE CENTRALE DE NANTES

# MASTER CORO-IMARO "CONTROL AND ROBOTICS"

2016 / 2017

Master Thesis Report

Presented by

Student Name

On Date

#### The title of the master thesis

Jury

Evaluators: Name Position (Institution)

Name Position (Institution)
Name Position (Institution)

Supervisor(s): Name Position (Institution)

Name Position (Institution)

Laboratory: Laboratoire des Sciences du Numérique de Nantes LS2N

#### Abstract

Do not forget to check each reference while importing in your Bibtex file. Especially, IEEExplore export may lead to ill-formatted conference name like  $Robotics\ and\ Automation,\ IEEE\ International\ Conference\ on.$ 

#### Acknowledgements

#### Notations

#### Abbreviations

# List of Figures

2.1	A triangle with letters	•								•		•	•				17
3.1	Triangle drawn by my program	ı. I	Note	e th	e 4	th s	$\operatorname{sid}\epsilon$	<u>.</u>									19

### List of Tables

### Contents

In	troduction	13
1	State of the art           1.1 First topic	
2	Actual work	17
3	Experiments	19
C	onclusion	21
$\mathbf{A}$	Proof of theorem 2.1	23
$\mathbf{B}^{\mathbf{i}}$	ibliography	23

## Introduction

Chapter 1

### State of the art

- 1.1 First topic
- 1.2 Second topic

## Actual work

When dealing with rectangled triangles (see Figure 2.1) I sometimes used this theorem from [Pythagoras, -580]:

$$a^2 + b^2 = c^2 (2.1)$$

The demonstration is in Appendix A.

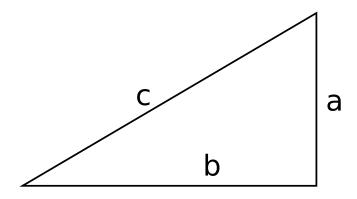


Figure 2.1: A triangle with letters

### **Experiments**

When trying to draw a rectangled triangle, my program comes up with Figure 3.1 that is neither rectangled nor a triangle.

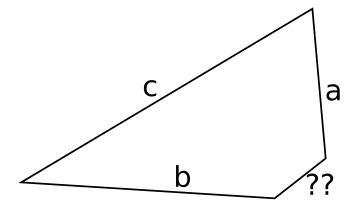


Figure 3.1: Triangle drawn by my program. Note the 4th side.

Unless there is a bug in my program, which is unlikely, this research indicates that the whole theory on triangles having 3 sides has been wrong for years, maybe decades.

## Conclusion

#### Appendix A

# Proof of theorem 2.1

Proof.~(2.1) was already demonstrated in [Euclides, -300].

# Bibliography

Of Alexandria Euclides. Elements. Self-published, 1(1), February -300.

Of Samos Pythagoras. Theorem. Some old journal, 1(1), February -580.