#### ÉCOLE CENTRALE DE NANTES

# MASTER CORO-IMARO "CONTROL AND ROBOTICS"

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Master Thesis Report

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#### 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

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## 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 [1]:

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

The demonstration is in Appendix A.

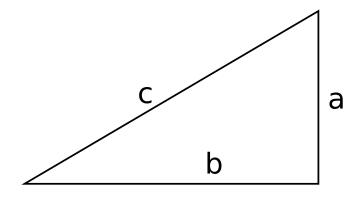


Figure 2.1: A triangle with letters

## **Experiments**

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

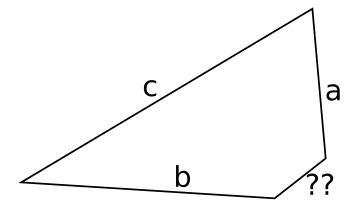


Figure 3.1: Triangle drawn by my program. Note the 4th side.

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 [2].

# **Bibliography**

- [1] O. S. Pythagoras, "Theorem," Some old journal, vol. 1, no. 1, Feb. -580.
- $[2]\,$  O. A. Euclides, "Elements,"  $\mathit{Self-published},$  vol. 1, no. 1, Feb. -300.