A comparative analysis of the main robotic open-source simulation tools*

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***Abstract*— This electronic document is a live template. The various components of your paper [title, text, heads, etc.] are already defined on the style sheet, as illustrated by the portions given in this document.**

I. INTRODUCTION

Review: [1]
MVSIM: [2]
Gazebo: [3]
Webots: [4]

Introducción
Contribuciones
Estructura
Límite de 6 páginas

II. THE SIMULATORS

A. Gazebo

TO-DO. Fig. 1.

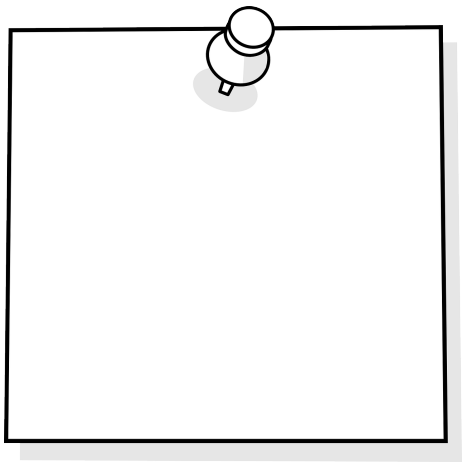

Fig. 1. Gazebo Simulation Interface

B. Webots

TO-DO. Fig. 2.

C. MVSIM

TO-DO. Fig. 3.

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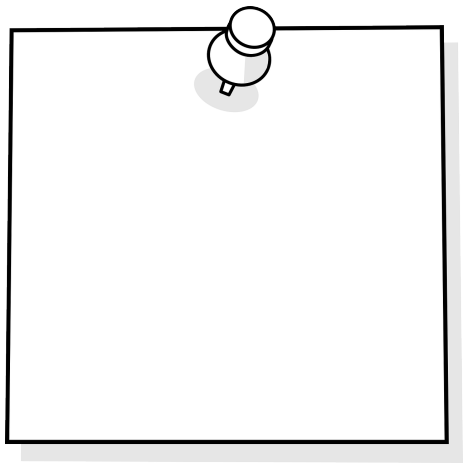

Fig. 2. Webots Simulation Interface

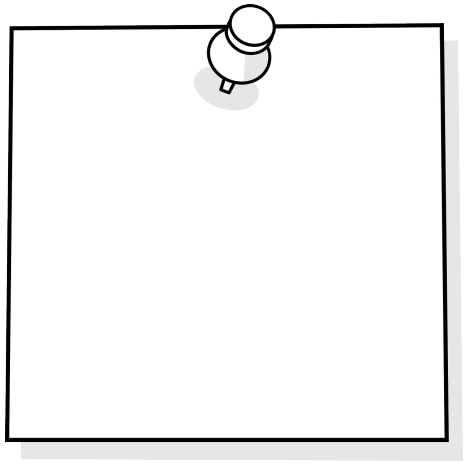

Fig. 3. MVSIM Simulation Interface

III. EXPERIMENT

IV. RESULTS

A. Equations

Punctuate equations with commas or periods when they are part of a sentence, as in

$$\alpha + \beta = \chi \tag{1}$$

Note that the equation is centered using a center tab stop. Be sure that the symbols in your equation have been defined before or immediately following the equation. Use (1), not Eq. (1) or equation (1), except at the beginning of a sentence: Equation (1) is . . .

TABLE I

AN EXAMPLE OF A TABLE

Tool	% CPU	RAM	Languages	ROS 2	Multi-Robot
MVSIM	–	–	C++/Python	✓	✓
Gazebo	–	–	C++	✓	✓
Webots	–	–	C++/Python	ext. lib.	✓

V. CONCLUSIONS

Summary, discussion and future work

ACKNOWLEDGMENT

The preferred spelling of the word acknowledgment in America is without an e after the g. Avoid the stilted expression, One of us (R. B. G.) thanks . . . Instead, try R. B. G. thanks. Put sponsor acknowledgments in the unnumbered footnote on the first page.

REFERENCES

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