AROB Practical Work

Author 1, Author 2

Abstract—**Practical work abstract. 200 words approx.**

I. INTRODUCTION

Small introduction to motivate the algorithm and relevant bibliography. This is an example to add a citation in Latex [1].

II. ALGORITHM DESCRIPTION

Short description of the algorithm.

This is an example to include an equation in the document,

$$\dot{x} = v \cos(\theta). \tag{1}$$

Equation (1) shows part of the kinematics of a unicycle vehicle.

III. IMPLEMENTATION DETAILS

Relevant details of your implementation. You can include a pseudo-code algorithm, like the one in Algorithm 1.

Algorithm 1 Pseudo-RRT

Require: x_0 and x_g
1: Initialize Tree with x_0
2: **while** x_g not reached **do**
3:     x_r = Generate a random location
4:     x_n = Nearest(Tree,x_r)
5:     **if** ObstacleFree(x_r, x_n) **then**
6:         Add x_r to Tree
7:         Check if x_g is reachable from x_r
8:     **end if**
9: **end while**
10: **return** Path from x_0 to x_g

IV. EXPERIMENTAL RESULTS

Experiments and results. Include your beautiful plots, like the one in Fig. 1.
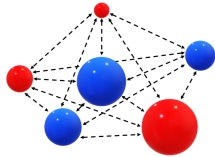

Fig. 1. Figure caption. i

You can also include a table, like Table I.

Algorithm	RRT	RRT*	A*
Computational Time (s)	1	3	5
Path distance (m)	5	3	1

TABLE I

COMPARISON RESULTS

V. CONCLUSIONS

Practical work conclusions. Remember, it is part of your job to make us believe you deserve the maximum grade!!

REFERENCES

[1] S. Thrun, W. Burgard, and D. Fox, *Probabilistic Robotics*, ser. Intelligent Robotics and Autonomous Agents series. MIT Press, 2005.