

Article Title

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Abstract

In the development of autonomous driving robot intended for the street or for closed environments where the precision of movement and ‘extremely important, an element to keep in consideration’ and the consciousness that the robot has of itself, ie of its characteristic dimensions, in particular those that affect its kinematic motion. In these pages you will take into consideration some methods that allow the robot itself to be traced back to its size characteristics starting from the location data and motion from various sensors. The odometry calibration consists in the identification of a set of kinematic parameters that allow to reconstruct the absolute position and orientation of the vehicle, based on the measurement and a written confirmation either via the encoder. In this report we show the results obtained by following this approach for the identification of the parameters of a pram.

For a mobile robot, odometry calibration consists of the identification of a set of kinematic parameters that allow reconstructing the vehicle’s absolute position and orientation starting from the wheels’ encoder measurements. This paper apply a method for odometry calibration of differential drive mobile robots. As a first step, the kinematic equations are written so as to underline linearity in a suitable set of unknown parameters; thus, the least-squares method can be applied to estimate them. A major advantage of the adopted formulation is that it provides a quantitative measure of the optimality of a test motion. The proposed technique has been experimentally validated on two different mobile robots and, in one case, compared with other existing approaches; the obtained results confirm the effectiveness of the proposed calibration method.

I. INTRODUCTION

The document presented here is based on the analysis of a real robot, developed and built at the MIRO - Measurements Instrumentations Robotics Lab at the University of Trento.

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II. INTRODUCTION

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III. METHODS

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Text requiring further explanation¹.

¹Example footnote

Table 1: *Example table*

| Name | | |
|------------|-----------|-------|
| First name | Last Name | Grade |
| John | Doe | 7.5 |
| Richard | Miles | 2 |

IV. RESULTS

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$$e = mc^2 \tag{1}$$

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V. DISCUSSION

pairing and life history strategy - a cross-cultural study. *Human Nature*, 20:317–330.

i. Subsection One

A statement requiring citation [Figueredo and Wolf, 2009]. Lorem ipsum dolor sit amet, consectetur adipiscing elit. Etiam lobortis facilisis sem. Nullam nec mi et neque pharetra sollicitudin. Praesent imperdiet mi nec ante. Donec ullamcorper, felis non sodales commodo, lectus velit ultrices augue, a dignissim nibh lectus placerat pede. Vivamus nunc nunc, molestie ut, ultricies vel, semper in, velit. Ut porttitor. Praesent in sapien. Lorem ipsum dolor sit amet, consectetur adipiscing elit. Duis fringilla tristique neque. Sed interdum libero ut metus. Pellentesque placerat. Nam rutrum augue a leo. Morbi sed elit sit amet ante lobortis sollicitudin. Praesent blandit blandit mauris. Praesent lectus tellus, aliquet aliquam, luctus a, egestas a, turpis. Mauris lacinia lorem sit amet ipsum. Nunc quis urna dictum turpis accumsan semper.

ii. Subsection Two

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REFERENCES

[Figueredo and Wolf, 2009] Figueredo, A. J. and Wolf, P. S. A. (2009). Assortative