

PythonRobotics: a Python code collection of robotics algorithms

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Abstract

This paper describes an Open Source Software(OSS): PythonRobotics[[1](#)]. This OSS is a Python code collection of robotics algorithms, especially focusing on autonomous navigation. It aims for beginners of robotics to understand basic ideas of each algorithm. The algorithms which is widely used in academia and industry and practical are selected. Each sample code only depends some standard modules on Python 3.x. In this paper, related works of this project, some key ideas about this OSS project, and brief structure of this repository are introduced. I also discuss future works of this project.

1 Introduction

2 Related works

3 Repository description

3.1 Localization

3.2 Mapping

3.3 SLAM

3.4 Path Planning

3.5 Path tracking

4 Conclusion and future work

5 Acknowledgments

I appreciate contributors: Daniel Ingram[[2](#)], Joe Dinius[[3](#)], Karan Chala[[4](#)], and Antonin RAFFIN[[5](#)]. This is my GitHub account[[6](#)]

References

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