Report
Representation and relative positioning from visual information

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Abstract

Chapter 2

Introduction

The internship at Laboratory of Computer Sciences, Paris 6 (LIP6) was mainly considered as a continuation of works that we carried out during a university project in first Master's degree. These previous works presented a naive approach of object recognition and an exploration strategy that allows an autonomous robot with a camera to roughly reconstruct its environment.

During this internship, we focused the most on the object recognition, because it was the processing which took the most time to execute. To remedy this situation, we rely on a learning approach where the robot becomes able to recognize an object based on its knowledge. Unlike our previous work where the robot was trying to match the detected object in its environment with all objects in the database, hoping to recognize it.

We summarize in this report our work and the results obtained.

Chapter 3

Litterature review

Chapter 4

Requirement Specification and Analysis

In this chapter, we present the functional and non functional requirments of the system. Before that, we specify the architecture of the global system with a brief overview.

4.1 Functional Requirments

4.2 Non Functional Requirments

Chapter 5

Design Specification

5.1 Programming Languages

5.2 APIs

Chapter 6

Implementation

Chapter 7

Testing

Chapter 8

Conclusion, Limitation and Futre work

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