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ROSmotic: A Scalable Smart Home for Blind People Controlled with an App

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Abstract

Document Sections

I. Introduction

II. Related Work

Abstract:
In this paper we present ROSmotic, a system for building smart homes operated by a smartphone app. The app is accessible for people with visual disabilities, and controlled by touch or voice commands. We provide a scalable and open source hardware and software solution by incorporating microcontrollers, cameras, laptops, and lights. We show an easy way to connect an iOS app with Robotics Operating System (ROS). We incorporate other open source libraries, cloud services, and image processing frameworks. The whole system is made in Swift and Python. Finally, we deliver the diagrams (logical and