

"Control of Mobile Robot" Project

Colli Stefano, Pagani Mattia, Panelli Erica

May 9, 2022

Abstract

Contents

1	Notes on Installation and Launch	2
2	General Project Structure	3
2.1	Catkin Workspace Directories	3
2.1.1	Original MIT Racecar Packages	3
2.1.2	Added Packages	3
3	Original System Introduction	4
4	(Our) System Description	5
5	Detailed Package Description	6

Chapter 1

Notes on Installation and Launch

Chapter 2

General Project Structure

2.1 Catkin Workspace Directories

2.1.1 Original MIT Racecar Packages

ackermann_cmd_mux	...
ackermann_msgs	...
racecar	...
racecar_control	Contains launch files to load controllers used to manage the motors of the racecar. Also load nodes which dispatch messages to controllers.
racecar_description	Contains a description of the racecar, in terms of models, meshes ecc... It will be used by Gazebo to represent it.
racecar_gazebo	Mainly contains launch scripts used to load all necessary nodes, worlds and other components to open a Gazebo instance with a controllable car.

2.1.2 Added Packages

car_control	Contains nodes used to send commands to the racecar, receive odometry data and control the car autonomously.
-------------	--

Chapter 3

Original System Introduction

Chapter 4

(Our) System Description

Chapter 5

Detailed Package Description