# Guidelines for Editing Book Chapter on ROS

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**Abstract.** The abstract should summarize the contents of the paper and should contain at least 150 and at most 250 words. The abstract should present a clear overview of the content of the chapter. It must specify whether this is a tutorial chapter or research chapter or use case chapter. It is possible to write something like, "In this tutorial chapter" or "In this use case chapter, ..." to specify the type of the chapter. In addition, give the reader the information about what ROS version(s) is (are) used for the code of this chapter. Also, provide a reference to your repository where your package can be downloaded.

**Keywords:** We would like to encourage you to list your keywords within the abstract section

## 1    Introduction

The introduction should present the motivations behind this chapter and the main conceptual problems that are solved or addressed using ROS. It must clarfiy well the contributions of the chapters and how the ROS packages related to it would be useful for ROS users and the readers (e.g. useful in teaching, or research). Also, provide a reference to your repository where your package can be downloaded.

Finally, use bulltets to enumerate the topics covered in the chapter, and/or the learning outcomes. You can write something similar to:

In this chapter, we will cover the following topics:

– First, we present an background section on topics X and Y
– Second, we demonstrate how to download and use and test the XXX ROS package
– Third, we describe the API of the presented ROS package and explain how to configure its components for building new applications
– Fourth,

## 2   Background

For the self-content issue of each chapter, some chapters may need to present a background section presenting the main mathematical or conceptual background needed to understand the topics presented in the chapter. For example, in a chapter dealing with UAVs control, it will be recommended to add a background section presenting the foundations of UAV control including kinematics and dynamics. The background section should not be too long, not exceeding 2 pages maximum.

## 3   ROS Environment Configuration

It will be very beneficial for the reader who would like to redo the experiments or simulations with your ROS package to provide him with step by step instructions on how to proceed including the pre-requisites and dependencies that might not be provided by default in the ROS package. For example, for using speech recoginition with ROS, it is needed to download and install additional custom packages such as *pocketsphinx* and *libasound*2 packages, etc. It is important to provide with sufficient details all confirgurations needed to setup and run your contributed ROS package. You can describe this in a sperate section or as a subsection depending on your structure.

## 4   Starting with a Test

It will be useful to first start with running a test of your contributed ROS package and explain the expected output of your package. This will help the reader taking an initial idea on the package execution and its intended operations and running modes before diving inside the technical details. In some cases, you can also refer to videos demonstrations that we will be gathered all in one YouTube channel related to the book.

## 5   Describing your ROS Package

It is recommended to give the reader a clear description of the main parts of your contributed packages so that he gains a clear understanding allowing him to reuse it and/or contribute to its improvement.

## 6   Authors Biographies

An the end of the chapter, each author provides an overview of maximum 150 words of his biography and background.