**Mcu Software Design**

***SteerTurnIllum***



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| Version: |  | 1.0 |

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# Glossary

This section contains a glossary of all the important terms and acronyms used inside the document.

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| **Term / Acronym** | **Description** |
| AUTOSAR | AUTomotive Open System ARchitecture |
| VFB | Virtual Functional Bus |
| SWC | Software Component |
| RTE | Runtime Environment |
| BSW | Basic Software |
| OS | Operating System |
| S/R | Sender / Receiver |
| C/S | Client / Server |
| ECU | Electronic Control Unit |
| uC | Microcontroller |
| ADC | Analog Digital Converter |
| DIO | Digital Input / Output |
| PWM | Pulse Width Modulation |

Table 1 - Glossary.

# Introduction

## Purpose of the Document

The purpose of the document is to define the software design of the ***Mcu*** driver for the ***SteerTurnIllum*** embedded academy project.

## Overview

While the AUTOSAR ***Mcu*** module is complex and is usually configured via generators, in this project its purpose is limited to:

* Sets up system clock.
* Distributes clocks to peripherals (for enabling them).
* Initializes the stack.

# Design Requirements

1. The Mcu driver shall assure clocks to all the hardware peripherals that are configured in the other MCAL drivers (ADCs, GPIOs and TIMERs) through *Mcu\_gkt\_Config* from *Mcu\_PBcfg.c*.The *Mcu\_PBcfg.c.start* file shall be used as a starting point. The .start extension shall be removed for adding the file to the build process.

Note: This update should take place in parallel to the implementation of the Adc, Dio, Port and Pwm drivers.

# Information about this Document

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## Version Index

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Table 2 - Version Index.