

# Design Patterns For Embedded Systems

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# 1 Abstract

Design Patterns propose standard skeletons for software engineering, which can be reused in many different projects. This paper will give an introduction to design patterns and briefly touch the history of their upgrowth. It will show the potential of using Unified Model Language (UML), for representing common design patterns. The paper will give also some examples on design patterns, which can be used especially in embedded systems environment and they use in daily software development.

## 2 Introduction

2.1 Brief History Of Design Patterns

2.2 Requirements For A Design Pattern

## 3 Using UML For Representing Patterns

## 4 Design Patterns

4.1 Singleton

4.2 Factory

4.3 Controller Decompose Patter

4.4 Actuator Sensor Pattern

4.5 Hardware Device Design Pattern

## 5 Conclusion

## 6 References