# ART OF EMBEDDED SYSTEM DESIGN

Bobby

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In these book, I will summerize all I know about the embedded system, and give some practical electronic designs what I have done in my career. Also, I want to improve the ability of using LaTeXby myself. This book is in the public domain. All the copyrights are under GPL 2.0. Thanks all for your attentions! All the materials are from books, internet, etc. I will list as much references as possible, but I am not sure that I can list all. For any improper or defects, your suggurestions are warmly welcomed.

Best Regards!

# Contents

# Part I

# Physics

# Chapter 1

# Solid state physics

In this chapter, will discuss the solid state physics, mainly about the basic fundamentles.

# Chapter 2

# Semiconductor physics

Table 2.1:

| | | | | |
|---|---|---|---|---|
| 11 | 1 | 12 | 4 | 6 |

Table2.1 indicate that

The universe is immense and it seems to be homogeneous, in a large scale, everywhere we look at.

furnished his toy with a romantic legend about a much larger "Tower of Brahma", which supposedly has 64 disks of pure gold Gold —wow.

Are our disks made of concrete? resting on three diamond needles. At the beginning of time, he said, "God" placed these golden disks on the first needle and ordained that a group of priests should transfer them to the third, according to the rules above. The priests reportedly work day and night at their task. When they finish, the Tower will crumble and the world will end.

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# Part II

# Circuit basics

# Part III

# Analog circuit

# Part IV

# Analog VLSI design

# Chapter 3

# Current source

$$\frac{d}{d\,x}\left(int_0^x f(u)\;du\right) = f(x)$$

Figure 3.1:

# Chapter 4

# Current mirror

# Chapter 5

# Differential amplifier pair

# Chapter 6

# OP AMP design

# Part V

# Digital circuit

# Chapter 7

# Finite state machine

# Part VI

# Analog digital converter

# Part VII

# Verilog HDL

# Part VIII

# Digital VLSI

# Chapter 8

# CPU design

# Part IX

# PCB design

# Part X

# PCB SI&PI

# Part XI

# C and C++ programming

# Part XII

# Data structure and algorithms

# Part XIII

# Computer orgnization

# Part XIV

# Computer architecture

# Part XV

# Operating system

# Part XVI

# Linux administration

# Part XVII

# Linux kernel

# Part XVIII

# Linux driver development

# Part XIX

# Linux system porting

# Chapter 9

# Buildroot

# Part XX

# Computer Network

# Chapter 10

# TCP/IP protocols

# Chapter 11

# Socket programming

# Part XXI

# Signal and system

# Part XXII

# Ditial signal processing

# Part XXIII

# Digtal image processsing

# Part XXIV

# Audio signal processing

# Part XXV

# Modal analysis

# Part XXVI

# Project Development

# Part XXVII

# Appendix

# Chapter 12

# Basic mathimatics

## 12.1 Formulas

$$a + b = b + a$$

appendix test

# Part XXVIII

# References

# Chapter 13

# References

www.baidu.com
   www.github.com
   www.google.com
   Bing