1.	Record Nr.	UNINA9911004771503321
	Autore	Douglass Bruce Powel
	Titolo	Design patterns for embedded C : an embedded software engineering toolkit / / Bruce Powel Douglass
	Pubbl/distr/stampa	Amsterdam ; ; Boston, : Elsevier, 2010
	ISBN	9786612878787 9781282878785 1282878786 9780080959719 0080959717
	Edizione	[1st ed.]
	Descrizione fisica	1 online resource (471 p.)
	Disciplina	005.13/3
	Soggetti	C (Computer program language) Embedded computer systems - Programming Software patterns
	Lingua di pubblicazione	Inglese
	Formato	Materiale a stampa
	Livello bibliografico	Monografia
	Note generali	Includes index.
	Nota di contenuto	Cover; Design Patterns for Embedded Systems in C; Copyright; Contents; Preface; Acknowledgements; About the Author; Chapter 1 What Is Embedded Programming?; 1.1 What's Special About Embedded Systems?; 1.2 OO or Structured - It's Your Choice; 1.3 What Did We Learn?; Chapter 2 Embedded Programming with The HarmonyTM for EmbeddedRealTime Process; 2.1 Basic Elements of the Harmony Process; 2.2 The Approach; 2.3 What's Coming Up; Chapter 3 Design Patterns for Accessing Hardware; 3.1 Basic Hardware Access Concepts; 3.2 Hardware Proxy Pattern; 3.3 Hardware Adapter Pattern; 3.4 Mediator Pattern 3.5 Observer Pattern3.6 Debouncing Pattern; 3.7 Interrupt Pattern; 3.8 Polling Pattern; 3.9 So, What Did We Learn?; Chapter 4 Design Patterns for Embedding Concurrency and ResourceManagement; 4.1 Basic Concurrency Concepts; 4.2 Cyclic Executive Pattern; 4.3 Static Priority Pattern; 4.4 Critical Region Pattern; 4.5 Guarded Call Pattern; 4.6 Queuing Pattern; 4.7 Rendezvous Pattern; 4.8 Simultaneous Locking Pattern; 4.9 Ordered Locking; 4.10 So, What Have We Learned?; Chapter

| Sommario/riassunto | A recent survey stated that 52% of embedded projects are late by 4-5 months. This book can help get those projects in on-time with design patterns. The author carefully takes into account the special concerns found in designing and developing embedded applications specifically concurrency, communication, speed, and memory usage. Patterns are given in UML (Unified Modeling Language) with examples including ANSI C for direct and practical application to C code. A basic C knowledge is a prerequisite for the book while UML notation and terminology is included. General C programming books d |