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   Sommario/riassunto The ultimate power-packed crash course in building Arduino-based
                       projects in just 10 days! About This Book A carefully designed 10-day
                       crash course, covering major project/device types, with 20+ unique
                       hands-on examples Get easy-to-understand explanations of basic
                       electronics fundamentals and commonly used C sketch functions This
                       step-by-step guide with 90+ diagrams and 50+ important tips will
                       help you become completely self-reliant and confident Who This Book
                       Is For This book is a beginner's crash course for professionals,
                       hobbyists, and students who are tech savvy, have a basic level of C
                       programming knowledge, and basic familiarity with electronics, be it
                       for embedded systems or the Internet of Things. What You Will Learn
                       Write Arduino sketches and understand the fundamentals of building
                       prototype circuits using basic electronic components, such as resistors,
                       transistors, and diodes Build simple, compound, and standalone
                       devices with auxiliary storage (SD card), a DC battery, and AC power
                       supplies Deal with basic sensors and interface sensor modules by using
                       sensor datasheets Discover the fundamental techniques of prototyping
                       with actuators Build remote-controlled devices with infrared (IR), radio
                       frequency (RF), and telephony with GSM Learn IoT edge device
                       prototyping (using ESP8266) and IoT cloud configuration In Detail This

book is a quick, 10-day crash course that will help you become well acquainted with the Arduino platform. The primary focus is to empower you to use the Arduino platform by applying basic fundamental principles. You will be able to apply these principles to build almost any type of physical device. The projects you will work through in this book are self-contained micro-controller projects, interfacing with single peripheral devices (such as sensors), building compound devices (multiple devices in a single setup), prototyping standalone devices (powered from independent power sources), working with actuators (such as DC motors), interfacing with an AC-powered device, wireless devices (with Infrared, Radio Frequency and GSM techniques), and finally implementing the Internet of Things (using the ESP8266 series Wi-Fi chip with an IoT cloud platform). The first half of the book focuses on fundamental techniques and building basic types of device, and the final few chapters will show you how to prototype wireless devices. By the end of this book, you will have become acquainted with the fundamental principles in a pragmati...