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| 1. Record Nr. | UNINA9910974115303321 |
| Autore | Wang Rui (Software engineer) |
| Titolo | Augmented reality with Kinect : develop your own hands-free and attractive augmented reality applications with Microsoft Kinect / / Rui Wang |
| Pubbl/distr/stampa | Birmingham, : Packt Pub., 2013 |
| ISBN | 9781849694391 1849694397 |
| Edizione | [1st ed.] |
| Descrizione fisica | 1 online resource (122 p.) |
| Collana | Community experience distilled |
| Disciplina | 006 |
| Soggetti | Kinect (Microcontroller) - Programming Multimodal user interfaces (Computer systems) |
| Lingua di pubblicazione | Inglese |
| Formato | Materiale a stampa |
| Livello bibliografico | Monografia |
| Note generali | Includes index. |
| Nota di contenuto | <p>Intro -- Augmented Reality with Kinect -- Table of Contents --</p> <p>Augmented Reality with Kinect -- Credits -- About the Author --</p> <p>About the Reviewers -- www.PacktPub.com -- Support files, eBooks, discount offers and more -- Why Subscribe? -- Free Access for Packt account holders -- Preface -- What this book covers -- What you need for this book -- Who this book is for -- Conventions -- Reader feedback -- Customer support -- Downloading the example code --</p> <p>Errata -- Piracy -- Questions -- 1. Getting Started with Kinect --</p> <p>Installation of Kinect -- Setting up your Kinect software on PCs -- Why did I do that? -- The idea of the AR-based Fruit Ninja game --</p> <p>Summary -- 2. Creating Your First Program -- Preparing the development environment -- Building the Visual Studio project --</p> <p>Starting the device -- Initializing and using Kinect in C++ --</p> <p>Understanding the code -- Additional information -- Summary -- 3. Rendering the Player -- Choosing image stream types -- Obtaining color and depth images -- Drawing color and depth as textures --</p> <p>Understanding the code -- An incorrect way to combine depth and color -- A traditional way for background subtraction -- Understanding the code -- Aligning color with depth -- Generating a color image from depth -- Understanding the code -- Additional information -- Using a green screen with Kinect -- Making a magic photographer --</p> |

Understanding the code -- Additional information -- Summary -- 4. Skeletal Motion and Face Tracking -- Understanding skeletal mapping -- Obtaining joint positions -- Drawing the skeleton -- Understanding the code -- Drawing the linetrails following the hands -- Drawing the path for specified joints -- Understanding the code -- Face tracking in Kinect -- Detecting a face from the camera -- Detecting and drawing the face rectangle -- Understanding the code -- Constructing the face model.

Drawing the parametric face model -- Understanding the code -- Summary -- 5. Designing a Touchable User Interface -- Multitouch systems -- Locating the cursors -- Drawing cursors from two hands -- Understanding the code -- Additional information -- Common touching gestures -- Recognizing holding and swiping gestures -- Drawing cursors using two hands -- Understanding the code -- Additional information -- Sending cursors to external applications -- Emulating Windows mouse with cursors -- Understanding the code -- Summary -- 6. Implementing the Scene and Gameplay -- Integrating the current code -- Integrating existing elements in a scene -- Understanding the code -- Cutting the fruits -- Adding and handling fruit objects -- Understanding the code -- Playing the game -- Adding simple game logic -- Understanding the code -- Additional information -- Summary -- A. Where to Go from Here -- libfreenect - the pioneer of Kinect middleware -- OpenNI - a complete and powerful Kinect middleware -- Free and open source resources -- Commercial products using Kinect -- Index.

Sommario/riassunto

This book is a mini tutorial with plenty of code examples and strategies to give you many options when building your own applications. This book is meant for readers who are familiar with C/C++ programming and want to write simple programs with Kinect. The standard template library can also be used as it is simple enough to understand.
