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Titolo	3D printing with RepRap Cookbook : over 80 fast-paced recipes to help you create and print 3D models // Richard Salinas ; cover image by Gagandeep Sharma
Pubbl/distr/stampa	Birmingham, [England] : , : Packt Publishing, , 2014 ©2014
ISBN	1-78216-987-3
Descrizione fisica	1 online resource (346 p.)
Collana	Community Experience Distilled
Disciplina	006.6869
Soggetti	Computer graphics Computer animation Three-dimensional imaging
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	"Quick answers to common problems"--Cover. Includes index.
Nota di contenuto	Cover; Copyright; Credits; About the Author; About the Reviewers; www.PacktPub.com; Table of Contents; Preface; Chapter 1: Getting Started with 3D Printing; Introduction; 3D scanning with a digital camera; Processing a 3D scan with 123D Catch; Viewing your scene with 123D Catch; Stitching photos with 123D Catch; Changing mesh resolutions with 123D Catch; Cleaning up the model with 123D Catch; Using the Autodesk 3D Print Utility; Let's print!; Slicing the models with Slic3r; Slicing the models with Skeinforge; Reviewing the print results; Chapter 2: Optimizing the Printing Process Introduction Inspecting the model with Meshmixer; Plane alignment with Meshmixer; Scaling the model with Meshmixer; Leveling the model with Meshmixer; Removing scanning artifacts with Meshmixer; Shaping the model with Meshmixer; Let's print!; Optimizing infill with Slic3r; Optimizing infill with Skeinforge; Printing without fill with Skeinforge; Tweaking shells and surface layers with Skeinforge; Reviewing the print results; Chapter 3: Scanning and Printing with a Higher Resolution; Introduction; Setting up DAVID Laser scanner; Calibrating DAVID Laserscanner; Scanning with DAVID Laserscanner

Viewing the model in MeshLab  
Cleaning the scans with MeshLab;  
Aligning the scans with MeshLab;  
Merging and remeshing the aligned scans in MeshLab;  
Let's print!;  
Tuning up the printer;  
Using Skeinforge with a 0.5 mm nozzle;  
Using Skeinforge with a 0.35 mm nozzle;  
Using Skeinforge with a 0.25 mm nozzle;  
Using Slic3r to print different resolutions;  
Reviewing the print results;  
Chapter 4: Modeling and Printing with Precision;  
Introduction;  
Warming up with SketchUp;  
Using 3D tools from the Extension Warehouse;  
Modeling with SketchUp;  
Using plugin extensions with SketchUp;  
Let's print!  
Calibrating the x, y, and z axes  
Controlling the flow rate in Skeinforge;  
Adjusting the scale in Skeinforge;  
Using Stretch in Skeinforge;  
Controlling print warping;  
Using brim with Slic3r;  
Reviewing the print results;  
Chapter 5: Manipulating Meshes and Bridges;  
Introduction;  
Exploring TopMod;  
Using TopMod for remeshing;  
Using MeshLab for remeshing;  
Mesh decimation with MeshLab;  
Wireframe modeling with TopMod;  
Let's print!;  
Cooling ABS and PLA with Skeinforge;  
Cooling ABS and PLA with Slic3r;  
Adjusting speed with Slic3r;  
Bridging with Slic3r;  
Adjusting speed with Skeinforge  
Bridging with Skeinforge  
Reviewing the print results;  
Chapter 6: Making the Impossible;  
Introduction;  
Using extruding options in TopMod;  
Using cutting options in TopMod;  
Working with edges in TopMod;  
Creating handles in TopMod;  
Making a starfish in TopMod;  
Creating support with Meshmixer;  
Let's print!;  
Creating support with Skeinforge;  
Support options with Skeinforge;  
Creating support with Slic3r;  
Support options with Slic3r;  
Reviewing our print results;  
Chapter 7: Texture - the Good and the Bad;  
Introduction;  
Making textures with Meshmixer;  
Making stencils with Paint.NET  
Stamping stencils with Meshmixer

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## Sommario/riassunto

A systematic guide consisting of over 100 recipes which focus on helping you understand the process of 3D printing using RepRap machines. The book aims at providing professionals with a series of working recipes to help make their fuzzy notions into real, saleable projects/objects using 3D printing technology. This book is for novice designers and artists who own a RepRap-based 3D printer, have fundamental knowledge of its working, and who desire to gain better mastery of the printing process. For the more experienced user, it will provide a handy visual resource, with side-by-side comparisons

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