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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
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ISBN	1-78216-987-3
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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

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