

**PROGRAMMING WITH OPENS CAD.** Copyright © 2021 by Justin Gohde and Marius Kintel.

All rights reserved. No part of this work may be reproduced or transmitted in any form or by any means, electronic or mechanical, including photocopying, recording, or by any information storage or retrieval system, without the prior written permission of the copyright owner and the publisher.

Printed in the United States of America

First printing

25 24 23 22 21 1 2 3 4 5 6 7 8 9

ISBN-13: 978-1-59327-954-7 (print)

ISBN-13: 978-1-59327-955-4 (ebook)

Publisher: William Pollock

Production Manager: Rachel Monaghan

Production Editor: Dapinder Dosanjh

Developmental Editor: Jill Franklin

Cover Illustrator: Gina Redman

Interior Design: Octopod Studios

Technical Reviewer: Miro Hrončok

Copyeditor: Sharon Wilkey

Compositor: Maureen Forsys, Happenstance Type-O-Rama

Proofreader: Emelie Battaglia

Indexer: Beth Nauman-Montana

The following images are reproduced with permission: Figure 1 in the introduction was created by Gustavb and is licensed under the Creative Commons Attribution-Share Alike 3.0 Unported license. The photo of the Leaning Tower of Pisa featured in Figures 7-1 to 7-4 is by Svetlana Tikhonova. The image is covered by the CC0 1.0 Universal (CC0 1.0) Public Domain Dedication license.

For information on book distributors or translations, please contact No Starch Press, Inc. directly:

No Starch Press, Inc.

245 8th Street, San Francisco, CA 94103

phone: 1.415.863.9900; info@nostarch.com

www.nostarch.com

Library of Congress Cataloging-in-Publication Data

LCCN: 2020943329

No Starch Press and the No Starch Press logo are registered trademarks of No Starch Press, Inc. Other product and company names mentioned herein may be the trademarks of their respective owners. Rather than use a trademark symbol with every occurrence of a trademarked name, we are using the names only in an editorial fashion and to the benefit of the trademark owner, with no intention of infringement of the trademark.

The information in this book is distributed on an “As Is” basis, without warranty. While every precaution has been taken in the preparation of this work, neither the author nor No Starch Press, Inc. shall have any liability to any person or entity with respect to any loss or damage caused or alleged to be caused directly or indirectly by the information contained in it.