The Robosapien Companion

Tips, Tricks, and Hacks

JAMIE SAMANS

The Robosapien Companion: Tips, Tricks, and Hacks

Copyright © 2005 by Jamie Samans

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.

ISBN (pbk): 1-59059-526-2 CIP data available upon request

Printed and bound in the United States of America 9 8 7 6 5 4 3 2 1

Trademarked names may appear in this book. Rather than use a trademark symbol with every occurrence of a trademarked name, we use the names only in an editorial fashion and to the benefit of the trademark owner, with no intention of infringement of the trademark.

Lead Editor: Jim Sumser

Editorial Board: Steve Anglin, Dan Appleman, Ewan Buckingham, Gary Cornell, Tony Davis,

Jason Gilmore, Jonathan Hassell, Chris Mills, Dominic Shakeshaft, Jim Sumser

Assistant Publisher: Grace Wong Project Manager: Sofia Marchant Copy Manager: Nicole LeClerc Copy Editor: Liz Welch

Assistant Production Director: Kari Brooks-Copony

Production Editor: Kelly Winquist

Compositor: Diana Van Winkle, Van Winkle Design Group

Proofreader: Linda Seifert Indexer: Carol Burbo

Artist: Diana Van Winkle, Van Winkle Design Group

Cover Designer: Kurt Krames

Manufacturing Manager: Tom Debolski

Distributed to the book trade in the United States by Springer-Verlag New York, Inc., 233 Spring Street, 6th Floor, New York, NY 10013, and outside the United States by Springer-Verlag GmbH & Co. KG, Tiergartenstr. 17, 69112 Heidelberg, Germany.

freigattensti. 17, 03112 freideiberg, Germany.

In the United States: phone 1-800-SPRINGER, fax 201-348-4505, e-mail orders@springer-ny.com, or visit http://www.springer-ny.com. Outside the United States: fax +49 6221 345229, e-mail orders@springer.de, or visit http://www.springer.de.

For information on translations, please contact Apress directly at 2560 Ninth Street, Suite 219, Berkeley, CA 94710. Phone 510-549-5930, fax 510-549-5939, e-mail info@apress.com, or visit http://www.apress.com.

The information in this book is distributed on an "as is" basis, without warranty. Although every precaution has been taken in the preparation of this work, neither the author(s) nor Apress 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 this work.

Contents at a Glance

	XV
PART 1 CHAPTER 1 CHAPTER 2 CHAPTER 3 CHAPTER 4	An Introduction
PART 2 CHAPTER 5 CHAPTER 6 CHAPTER 7	Robosapien Out of the Box Robosapien Anatomy
PART 3 CHAPTER 8 CHAPTER 9 CHAPTER 10 CHAPTER 11	Programming Your Robosapien Program Modes
PART 4 CHAPTER 12 CHAPTER 13 CHAPTER 14 CHAPTER 15	Hacking the Robosapien 217 An Introduction to Hacking Robosapien 231 Hacking Basics 231 Troubleshooting Your Robosapien 249 Advanced Hack: Wireless Camera Installation 265
	A New Line of Robots
APPENDIX	Interview with Mark Tilden