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Nota di contenuto	Copyright; Table of Contents; Preface; Audience; Organization of This Book; Part I; Part II; Part III; Conventions Used in This Book; Supplementary Material; O'Reilly Safari; How to Contact Us; Acknowledgments; Jon, Paris, and Tim; Alasdair Allan; Paul Fenwick; Part I. Getting Started; Chapter 1. You Will Go to Space Today; Getting Kerbal Space Program; Going to Space; Getting Started; Accepting a Mission; Building the World's Simplest Rocket; Launching the World's Simplest Rocket; What to Do Next; Chapter 2. Rockets!; Rocket Design; Design for Your Mission; Forces on Your Rockets; Shape Building a Rocket Vehicle Assembly Building; Rocket Parts; Connecting the Rocket; Remember the Mission; Getting Back Down; Summary; Chapter 3. Maneuvers; Launching into Orbit; The Launch Pad; Test Rocket: TKB-01 "Let's Hope This Works"; Launching the Rocket; Launching; Establishing an Orbit; Circularizing; Maneuver Nodes; Doing an EVA; Reentry; Landing (and Walking Away from It); Docking; Test Rocket TKB-DK-2: "In-Orbit Construction Is Totally in Now"; Rendezvous; Approach; Docking; Resource Management; Undocking; Summary; Chapter 4.

Planes in Space; Heading Out for a Joyride Designing for Flight Aerodynamic Forces; Building a Plane; Designing Good Planes; Optimizing the Center of Lift; NiftyPlane 9000; Design; Taking It to Orbit; Summary; Chapter 5. The Worlds of Kerbal Space Program; Meet the Kerbals; A Space Tourist's Guide to the Kerbol System; Kerbol; Moho; Eve; Kerbin; Duna; Dres; Jool; Eeloo; Summary; Part II. Adventures in Space; Chapter 6. Running a Space Program; Resources in Career Mode; Upgrading Your Space Center; Science, Technology, and Research; Doing Science; Science and Situations; Mobile Processing Labs; Hiring Kerbonauts Kerbonaut Skills and Experience Taking Contracts; Managing Your Funds; Reputation; Strategies; Customizing Your Experience; Tips for Success; Chapter 7. Historical Reenactment; Sputnik 1 (First Satellite in Orbit); Design; Launch; Aftermath; Vostok 1 (First Human Space Flight); Design; Launch; Aftermath; Luna 9 (First Soft Landing of Probe on Moon); Design; Launch; Aftermath; Apollo 11 (First Crewed Moon Landing); Design; Launch; Rearranging the Ship; Landing on Mun; Returning Home; Aftermath; Apollo 15 (First Lunar Rover); Design; Launch; Aftermath; Summary; Chapter 8. Getting to the Planets Transferring Between Celestial Objects Destination: Duna; The Duna Exploration Rover; Getting the Rover onto the Surface; Getting the Rover to Duna; Flying the Mission; A Flight over Laythe; The Laythe Glider; Flying to Laythe; A Probe to Eve; The Eve Probe; Flying to Eve; Summary; Chapter 9. Rocket Science; The Law of Conservation of Momentum; Thrust-to-Weight Ratio; Specific Impulse; Delta-v; The Rocket Equation; Derivation of the Rocket Equation; Center of Mass, Thrust, and Drag; Orbits; Getting to Orbit; The Gravity Turn; Gravity Losses; Atmospheric Drag; The Karman Line; Basic Orbiting

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#### Sommario/riassunto

Kerbal Space Program (KSP) is a critically acclaimed, bestselling space flight simulator game. It's making waves everywhere from mainstream media to the actual space flight industry, but it has a bit of a learning curve. In this book, five KSP nerds—including an astrophysicist—teach you everything you need to know to get a nation of tiny green people into space. Perfect for video game players, simulation game players, Minecrafters, and amateur astronomers.

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