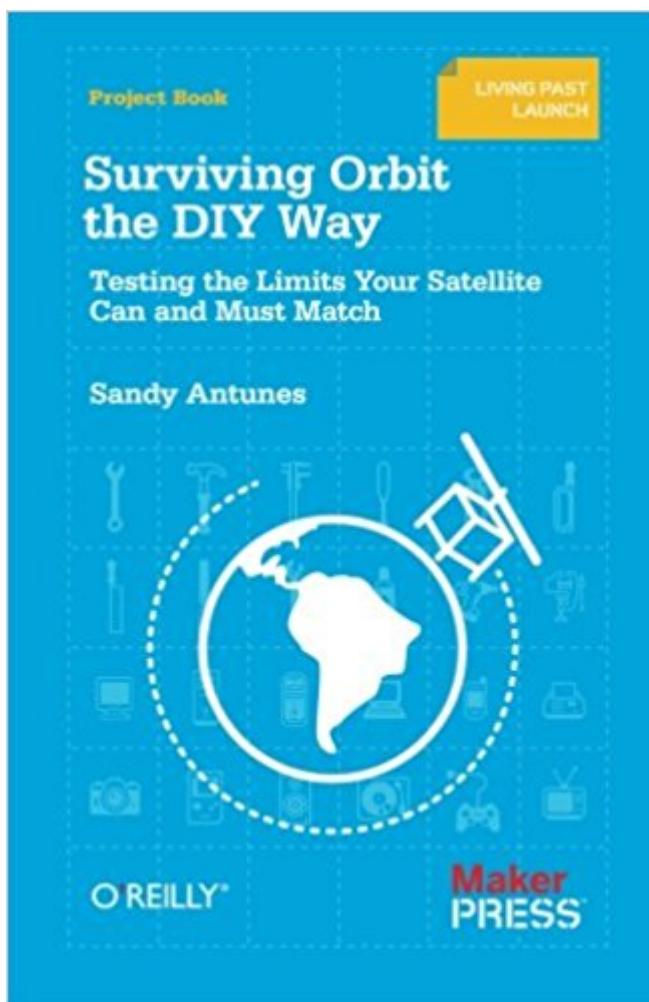


The book was found

Surviving Orbit The DIY Way: Testing The Limits Your Satellite Can And Must Match



Synopsis

Is your picosatellite ready for launch? Can it withstand rocket thrusts and the vacuum of space? This do-it-yourself guide helps you conduct a series of hands-on tests designed to check your satellite's readiness. Learn precisely what the craft and its electronic components must endure if they're to function properly in Low Earth Orbit. The perfect follow-up to DIY Satellite Platforms (our primer for designing and building a picosatellite), this book also provides an overview of what space is like and how orbits work, enabling you to set up the launch and orbit support you'll need. Go deep into the numbers that describe conditions your satellite will face. Learn how to mitigate the risks of radiation in the ionosphere. Pick up enough formal systems engineering to understand what the tests are all about. Build a thermal vacuum chamber for mimicking environment of space. Simulate the rocket launch by building and running a vibration shake test. Use a homebuilt centrifuge to conduct high G-force tests. Get guidelines on scheduling tests and choosing an appropriate lab or clean room.

Book Information

Paperback: 92 pages

Publisher: Maker Media, Inc; 1 edition (September 9, 2012)

Language: English

ISBN-10: 1449310621

ISBN-13: 978-1449310622

Product Dimensions: 5.5 x 0.2 x 8.5 inches

Shipping Weight: 5.8 ounces (View shipping rates and policies)

Average Customer Review: 3.7 out of 5 stars 8 customer reviews

Best Sellers Rank: #478,257 in Books (See Top 100 in Books) #53 in Books > Engineering & Transportation > Engineering > Electrical & Electronics > Electronics > Sensors #705 in Books > Science & Math > Astronomy & Space Science > Astrophysics & Space Science #5722 in Books > Science & Math > Physics

Customer Reviews

Alexander "Sandy" Antunes (born 1967 in Baltimore, Maryland) is a Maryland-area astronomer, author, and role playing game designer. He graduated from Boston University in 1989 with a dual major in astronomy and physics, received a Masters in astronomy from Penn State in 1992, and received his PhD in computational astrophysics from George Mason University in 2005. He was the Maryland Science Center "Science Person of the Month" for May 2007.

This is a small book, but still has a lot of useful information. It's written in easy-to-understand language. It really pushes the crude end of doing things with cubesats. One centrifuge suggestion is literally putting your cubesat in a sling and whirling it around your head. Another one uses a drill to turn a counterbalanced stick to get a few g's out at the end. It's clever to use the accelerometers in a cell phone to know the acceleration in your centrifuge. You can make your own thermal vacuum chamber with a modified pressure cooker and a heat lamp. If you are on a very tight budget, then this is good for you.

Good read and intro to small satellite testing. Just enough technical detail to get you going in the right direction and not so much that you'll feel like you're drowning. There are very pragmatic suggestions for everything you might encounter.

That says it all. How the would our hero a spacecraft survive up there long enough to present meaningful data and if need be act upon it.

A little short on details but otherwise OK! would like to see more of the details on how to's in the next edition!

I am not building a cube-sat in my garage, but if I were, I think this book would have at least given me a clue as what I would have to do to give my cube-sat a decent chance of survival in the low orbit environment. I am interested in building instrument packages for civilian drones, and my thinking is that a package that could survive low orbit could easily survive use in the atmosphere. Lots of food for thought, and easily worth the price.

Good

Good

Great book and fun read. The book really helps you understand what it takes to make a pico satellite space worthy. That being said the book really focuses on that aspect as titled and I'd have liked to see more detail about building micro satellites so this ends up being a secondary purchase to other books on the topic. That being said the book is well titled and covers the topic well as least as

far as my software engineering background with some robotics mixed in can tell.

[Download to continue reading...](#)

Surviving Orbit the DIY Way: Testing the Limits Your Satellite Can and Must Match DIY: 365 Days of DIY: A Collection of DIY, DIY Household Hacks, DIY Cleaning and Organizing, DIY Projects, and More DIY Tips to Make Your Life Easier (With Over 45 DIY Christmas Gift Ideas) DIY Household Hacks for Beginners: DIY Hacks For Cleaning And Organizing, Increased Productivity, Declutter your Home (DIY Home Improvements, DIY Household ... And Organizing, Increase Productivity) DIY For Men: Woodworking, Ham Radio, Blacksmithing, Homemade Weapons and Even DIY Internet Connection: (DIY Projects For Home, Woodworking, How To Build A Shed, Blacksmith, DIY Ideas, Natural Crafts) Daniels and Worthingham's Muscle Testing: Techniques of Manual Examination and Performance Testing, 9e (Daniels & Worthington's Muscle Testing (Hislop)) DNA Testing Guide Book: Utilize DNA Testing to Analyze Family History Genealogy, Classify and Measure Ethnic Ancestry Research, And Discover Who You Are ... DNA Testing, Ancestry, Ancestry Research) DIY Instruments for Amateur Space: Inventing Utility for Your Spacecraft Once It Achieves Orbit DIY Comms and Control for Amateur Space: Talking and Listening to Your Satellite The Overload Syndrome: Learning to Live Within Your Limits: Learning to Live with Your Limits (Guidebook) Meet Your Match (No Match for Love) DIY Protein Bars: 30 Delicious and Healthy DIY Protein Bars (diy protein bars, protein bars, high protein snacks) DIY Wood Pallet Projects: 23 Creative Wood Pallet Projects That Are Easy To Make And Sell! (DIY Household Hacks, DIY Projects, Woodworking) Soapmaking, Body Butter & Essential Oils DIY Collection x 9: Soapmaking, Body Butter & Essential Oils Boxset Bundle: Making Soap At Home, DIY Soap Recipes, ... & MUCH MUCH MORE! (DIY Beauty Boxsets) Dorothy Must Die Stories: No Place Like Oz, The Witch Must Burn, The Wizard Returns (Dorothy Must Die Novella) Beijing Travel Guide - 3 Day Must Sees, Must Dos, Must Eats DIY Satellite Platforms: Building a Space-Ready General Base Picosatellite for Any Mission Match a Track: Match 25 Animals to Their Paw Prints (Magma for Laurence King) The Successful Match 2017: Rules for Success in the Residency Match Long Distance: Testing the Limits of Body and Spirit in a Year of Living Strenuously Bath Bombs: Amazing DIY Bath Bomb Recipes that You Can Make At Home for a Luxury Bath (Bath Recipes, DIY Home Recipes Book 1)

[Contact Us](#)

[DMCA](#)

Privacy

FAQ & Help