RESUME

John J. Hagerty (Jack)

Personal:

785 Jefferson Ave. Livermore, CA 94550

Phone: (925) 583-5126 (office)

(925) 437-8543 (cell)

jack@roboticmidwives.com LinkedIn Profile: <u>Click here</u>

Citizenship: U.S.A.

General Statement:

I am a mechanical design engineer with experience in aerospace, robotics/automation, high vacuum systems, semiconductor equipment and medical device development. My career thus far has covered a wide range of industries (as outlined below) giving me great breadth of experience. Through no fault of my own, I also find myself quite adept at writing (technical and popular).

Professional/Academic:

- LinkedIn Ranked in Top 1% of Recommended Engineer
- CCR registered government contractor (satisfies "Small Business Set-aside" requirement)
- Business-to-Government Mastery Program, B2G Institute
- SME Certified Manufacturing Engineer in Robotics, Certificate #1909672
- Certified Geometric Dimensioning & Tolerancing, U.C. Extension
- USAF certificates in orbital mechanics and satellite hardware systems
- BSME, Automated Controls, UC Berkeley

Security Clearances (historic):

- General Electric DOD Secret, EBI
- Lockheed DOD Secret, CNWDI
- Tracor MBA DOD Secret

Experience Index (click to jump)

Greentech

Medical Equipment/Physical Rehabilitation

High Vacuum/Semiconductor Equipment

Robotics/Factory Automation

Aerospace

Ordnance

Anti-Counterfeit

Food Processing/Consumer Products

Patents

Writing Portfolio

Commercial Work Experience

Entries are separated by industry and tagged as to whether consulting client or employer.

Greentech

RML In-house Project: POWRxx Organic Waste Processing System

Chief engineer and developer for a fast, energy efficient machine to process organic waste into a compost-like substance in less than a day. Project still ongoing.

Client: Martin Borenstein, AIA, Oakland, CA

- "Productionize" design of a multi-function living chair. Re-write patent application technical section for chair (Patent granted based on re-write).
- Prototype development of other multi-function furniture.

Employer: Tracor Aerospace, San Ramon, CA

- Principal Investigator for DOE/JPL automated PV solar panel assembly contract.
 Project used industrial robot to solder solar cells into strings of any length and configuration.
- Awarded follow-on contract to build prototype, robot-based machines for solar panel lamination and edge sealing. Responsible for presentation of technical papers at quarterly program meetings at JPL.

Medical Equipment/Physical Rehabilitation

Client: Terumo Medical Corporation, Fremont, CA

Senior test engineer for TacuraTM blood separation system. Responsible for all phases of testing: protocol writing, test preparation and execution, data analysis and report writing; all to FDA standards. Testing ranges from simple component tests to large scale microbial challenges at remote testing sites. (Seven year contract)

Client: IntelliDx, Santa Clara, CA

Support test engineer for OptimusTM automated blood monitoring system. Developed the "Veinilator" simulator that mimics the pressure, flow and pulse of a human patient's vein for use as a testing platform.

Client: U.S. VA, Center for Design Research, Palo Alto, CA

Mechanical redesign of a quadriplegic rehabilitation system integrating a voice-commanded robot into an office environment.

Client: Martin Borenstein, AIA, Oakland, CA

- "Productionize" design of a multi-function living chair. Re-write patent application technical section for chair (Patent granted based on re-write).
- Prototype development of other multi-function furniture.

Client: Northwest Mechanical Design, Alameda, CA

Fabrication drawing package for custom 5-axis mill for U.S. Veterans Administration prosthetic production program.

High Vacuum/Semiconductor Equipment

Client: Applied Materials, Santa Clara, CA

- Drawing package update for "Odyssey" product (acquired from Slumberger) modifying from Slumberger and other sub-contractor formats to AMAT formats.
- Engineering support for development of HART (High Aspect Ratio Trench)
 product in both 200mm and 300mm versions. Primary responsibility was Cathode
 design. Secondary responsibilities included actively cooled magnets (air-cooled
 on prototype, water-cooled on production), chamber modifications, compiling
 master BOM for product release. (Two year contract)
- Engineering support for release of 300mm Poly Etch system. Performed engineering review of entire chamber/DTCU. Supported Manufacturing Group in product release ECO (a major effort).
- Design of heavy lift maintenance fixtures for 200mm DPS Poly Etch system.
- Senior Hardware Engineer responsible for design and upgrades of Poly Etch systems on Phase II and MxP chambers. Integration of CE Marking on the entire P5000 platform. Evaluation of robot vendors for CMP wafer cassette transports. (Two year contract)

Employer: Applied Materials, Santa Clara, CA

- Senior Hardware Engineer, responsible for design and upgrade of plasma etching hardware on the Phase II and MxP Poly Etch systems.
- Release of designs into large and complex product structures.
- Integrated fixes for CE Marking/EM Compliance for the entire P5000 platform.

Client: HSD Engineering, Oakland, CA

- Convert HSD's entire drawing library from an old DOS-based CAD system to a more modern system (two-year project).
- Component drawings for large vacuum planetary system.
- Component drawings for a production vacuum furnace.

Client: Equipe Technologies, Sunnyvale, CA

- Developed hardware interface between Vacuum (process) and Atmospheric (load/unload) systems.
- Many minor design jobs for production pieces and customer specials. Design of "Wide Track" track robot prototype.

Client: Lam Research, Fremont, CA

Robot vendor evaluation for 200mm (Alliance) and 300mm Transport modules.

Client: Sierra Technology Group, Livermore, CA

Design of multiple-concentric axis drive system for substrate holder in a Commonwealth Scientific, dual-ion beam sputter system.

Client: Fairweather Thermal Platforms, Sunnyvale, CA

Minor packaging of control system components.

Client: SysTech, Tracy, CA

Design of substrate tooling for planetary sputter system. Components included ball-detent type quick release for substrate holder, main track design, and integration of planetary main drive.

Client: Semicore Equipment, Livermore, CA

- A steady client for 15 years.
- Provided component drawings and reverse engineering services for refurbishing sputter PVD/CVD/Evaporative coaters.
- Designed customer-specific deposition system tooling and fixturing.

Client: Quester Technology, Inc., Fremont, CA

- Detail Engineering support for complex Gas Distribution Head of Atmospheric Pressure CVD (APCVD) system.
- Detail engineering support for process development of partial Pressure CVD systems.
- Robot vendor evaluation for 200mm (5300) and 300mm APCVD systems.
- Principal investigator for project to analyze contamination of silicon wafers while being loaded/unloaded by industrial robot. Included test design, data collection, video analysis and complete documentation.

Client: TSC, Livermore, CA

Component drawings and reverse engineering for refurbishing sputter/PVD/CVD/Evaporative coaters.

Client: Ion Systems, Berkeley, CA

- Design and fabrication of high-speed, wide web static generating fixture for use in developing anti-static products. Web was 3 feet wide and traveled at 1,500 ft/min.
- Design and fabrication of instrumentation upgrades for test fixture.

Client: Shrader Scientific, Hayward, CA

Designed a wide variety of High Vacuum and Ultra High Vacuum systems.

Employer: Shrader Scientific, Hayward, CA

System Engineer, responsible for design of custom vacuum equipment used in manufacturing testing including sputtering/coating systems, vacuum ovens, Thermal/Vacuum test systems and magnetic/vacuum annealing systems. Responsibilities ranged from entire system layout to sub-component design.

Client: High Vacuum Apparatus Mfg, Inc., Hayward, CA

Aid with "final pass" engineering for large (23" x 52") custom gate valve for Lawrence Livermore National Laboratory. Provide complete assembly and maintenance documentation for both this valve and valves in the regular product line.

Client: KMI Energy, Livermore, CA

- Contract Technologist to LLNL: Performed assembly and checkout on Vacuum/Air Interface for Advanced Test Accelerator (a "Star Wars" device).
- Local assembly checkout of Paladin Section in preparation for shipment to Site 300.

Employer: Litton/Integrated Automation, Alameda, CA

- Robot based wafer ASRS for National Semiconductor.
- Provided preliminary robot based designs for GaSonics diffusion furnace loader.

Robotics/Factory Automation

Client: Clorox Services Company, Pleasanton, CA

Integration of control and testing equipment for a fully automated system to test oxygen permeation of "Glad" brand food storage bags.

Client: Advanced Cybernetics Group, Sunnyvale, CA

Design and integration of a surface mapping end effector used with a very large crane robot to map the entire surface of any aircraft in the USAF inventory up to a C-130 Hercules. This as a prelude to the automated paint stripping, which is part of periodic maintenance.

Client: Lam Research, Fremont, CA

Robot vendor evaluation for 200mm (Alliance) and 300mm Transport modules.

Client: Equipe Technologies, Sunnyvale, CA

Design of "Wide Track" track robot prototype.

Client: U.S. VA, Center for Design Research, Palo Alto, CA

Mechanical redesign of a quadriplegic rehabilitation system integrating a voicecommanded robot into an office environment.

Client: U.C. Berkeley, Berkeley, CA

Investigate the current state of the robotics industry vis-à-vis automated tape/disk mass storage systems. Conduct seminars on basic robotics and automation for project researchers.

Client: Document Imaging Storage Corporation, Sunnyvale, CA

Detail design and fabrication package for the disk transfer mechanism of a large optical disk jukebox system.

Client: Bots, Inc., Mountain View, CA

Responsible for mechanical design and construction of a family of "personality" service robots for use in a pizza restaurant. The "showbots" needed several anthropomorphic features (moving eyes, mouth, neck and arms) to perform the entertainment. The "workerbot" required all of that plus a food-serving compartment for transporting two pizzas (any size) and other food items.

Client: Motorola, Inc., Schaumburg, IL

Lead engineer on Tabletop Factory project for Galvin Center Training facility. The system incorporated the concepts of random standard/custom parts mix, multiple cell coordination with asynchronous scheduling, CNC machining, intercell transfer, artificial vision and automatic tool change all on a 4'x 8' tabletop. Involvement was total from initial concept and proposal through design and implementation to final manual writing and drawing package.

Client: Pacific Communication, Inc., Campbell, CA

Reverse Engineer custom computer chassis to accept ATX standard motherboards and I/O equipment.

Client: Litton/Integrated Automation, Alameda, CA

Responsible for the design, construction and installation of a large scale wafer-buffering system for National Semiconductor.

Employer: Litton/Integrated Automation, Alameda, CA

- Lead Engineer for robot based wafer ASRS for National Semiconductor.
- Mechanical design and integration of portable, automatic rice inspection machine for Japanese client Satake Engineering.
- Design and development of precision camera mounts for Crane Paper mill.
- Provided preliminary robot based designs for: diffusion furnace loader (GaSonics), high speed ice cream bar dipper (Dove International
- Non-robotic designs for: automating acrylic fiber production (Monsanto), high speed candy bar aligner (M&M Mars), automated malt ball inspection/sorting system (Leaf Candy/Whopper) and a similar system for radishes (Tem-Cole).

Client: Apple Computer, Inc., Fremont, CA

- Design, fabrication and installation of inspection station on the original Macintosh assembly line.
- Design and fabrication of custom enclosures for robot work cells.

Client: Applied Robotics Technologies, Concord, CA

Design and development of robotic work cells for clean room certification of computer hard disk media. Work included general layout, component design, cell assembly and testing.

Employer: Zehntel Automation Systems, Walnut Creek, CA

- Engineer-in-Charge of Robotics: Integrated OEM purchased robots (Intelledex 605 and 705) as standard product to load and unload automated circuit board testers.
- Developed customized test cells based on that product to suit individual customer's needs. Developed custom "end effectors" (robot gripper tooling) to handle multiple and odd shaped circuit boards.
- Supported field installations of the test cells.
- Supported trade shows in Chicago, Los Angeles San Mateo and Detroit.

Employer: Tracor Aerospace, San Ramon, CA

- Principal Investigator for DOE/JPL automated PV solar panel assembly contract.
 Project used industrial robot to solder solar cells into strings of any length and configuration.
- Awarded follow-on contract to build prototype, robot-based machines for solar panel lamination and edge sealing. Responsible for presentation of technical papers at quarterly program meetings at JPL.
- Development engineer for assembly machine to automate the fabrication and assembly of fusing ribbons on sub-munitions of a 155mm NATO anti-tank round.
- Design engineer: design for a robot-based laser system for sealing glass ampoules of TiCl₄ used in "cold smoke" practice bombs.

Aerospace

Client: Scepter Scientific, Dublin, CA

- Housing design and fabrication drawing package military dual band (visible and infrared) optical system.
- Drawing package for F-18 Optical Window thermal controller.

Employer: Litton/Integrated Automation, Alameda, CA

- Preliminary design for Space Shuttle Solid Rocket Booster bore inspection tool (Morton-Thiokol),
- Preliminary design for aircraft Master Plaster scribing system (MacDonnell Douglas).

Client: Campbell Rocket Works, Campbell, CA

Production drawing package for fabrication of High Power hobby rocket components. Package included mold design for spin-molded nose cone.

Client: Advanced Cybernetics Group, Sunnyvale, CA

Design and integration of a surface mapping end effector used with a very large crane robot to map the entire surface of any aircraft in the USAF inventory up to a C-130 Hercules. This is preparation for automated paint stripping, which is part of periodic maintenance.

Client: KMI Energy, Livermore, CA

Contract Technologist to LLNL: Performed assembly and checkout on Vacuum/Air Interface for Advanced Test Accelerator (a "Star Wars" device).

Employer: Shrader Scientific, Hayward, CA

Design Engineer: Designed custom equipment used in aerospace testing including Thermal/Vacuum test systems for Loral (used to test Comsat transponders and the ISS battery systems). Responsibilities ranged from entire system layout to subcomponent design.

Employer: Tracor Aerospace, San Ramon, CA

Test Engineer: Worked on several USAF passive counter measures (radar chaff, infrared flare) programs. Responsibilities included instrumentation of the test subject, high speed, multi-channel data recording and analysis. High-speed photographic data were gathered with Redlake Hycams. Motion analysis was done on a Vanguard Motion Analyzer.

Employer: Lockheed Missiles and Space Co., Sunnyvale, CA

Associate Engineer, Senior: Responsible for compiling the *Stockpile-to-Target Sequence* for the Mk 500 re-entry body used on the Trident FBM. This document describes all of the logistics and environments a re-entry body undergoes from the stockpile, through transport, loading, maintenance, launching, flight, and re-entry.

Employer: General Electric Co, Space Division, Sunnyvale, CA

- Systems Operations Analyst: Position duties included analysis, management and
 use of large software systems; on flight support of Air Force satellite as
 Command Generator which involved the real time generation of satellite
 command messages from Program Office inputs.
- Senior Command Generator: Supervised four shift personnel (command generators) in the performance of above duties. Monitor vehicle station passes to give CG inputs in case of vehicle anomaly.

Ordnance

Employer: Tracor Aerospace, San Ramon, CA

- Test Engineer: USAF contract to upgrade the radar chaff loads for the F-111 *Aardvark*. Responsibilities included instrumentation of the test subject, high speed, multi-channel data recording and analysis. High-speed photographic data were gathered with Redlake Hycams. Film analysis was done on a Vanguard Motion Analyzer. Tests were conducted at ambient, +200°F and -70°F.
- Test Engineer: tested the can-launch sequence for "Advanced Flare" development (a flying infrared flare).
- Development Engineer for assembly machine to automate the fabrication and assembly of fusing ribbons on sub-munitions of a 155mm NATO anti-tank round.
- Design Engineer: design update for the fuze on the Mk 82 bomb (standard 500 lb iron bomb).
- Design Engineer: design for a robot-based laser system for sealing glass ampoules of TiCl₄ used in "cold smoke" practice bombs.
- Design Engineer: design of the individual rocket rounds of the "Swarmjet" proposal (a "Star Wars" terminal defense system).

Anti-Counterfeit

Client: Scepter Scientific, Dublin, CA

- Spec-control drawing package for custom anti-counterfeit sensors in money transport system.
- Vendor search and evaluation plus fabrication drawing package for currency security thread sensor project.

Employer: Litton/Integrated Automation, Alameda, CA

Design and development of precision camera mounts for Crane Paper mill (to monitor the security thread in money paper during manufacture).

Client: Northwest Mechanical Design, Alameda, CA

Fabrication drawing package for Bureau of Engraving and Printing system to sample-check money sheets for anti-counterfeit compliance.

Food Processing/Consumer Products

RML In-house Project: POWRxx Organic Waste Processing System

Chief engineer and developer for a fast, energy efficient machine to process any organic waste into a compost-like substance in less than a day. Project still ongoing.

Client: Clorox Services Company, Pleasanton, CA

Integration of control and testing equipment for a fully automated system to test oxygen permeation of "Glad" brand food storage bags.

Client: Martin Borenstein, AIA, Oakland, CA

- "Productionize" design of a multi-function living chair. Re-write patent application technical section for chair (Patent granted based on re-write).
- Prototype development of other multi-function furniture.

Client: Working Machines Corp, Berkeley, CA

Design and development of ergonomic washdown sprayers for cleaning meatpacking plants. Units had to switch between jet and spray modes at flow rates of 20 gpm at 500 psi. Operation had to be simple and intuitive for untrained personnel.

Employer: Litton/Integrated Automation, Alameda, CA

- Mechanical design and integration of portable, automatic rice inspection machine for Japanese client Satake Engineering.
- Robot based designs for high speed ice cream bar dipper (Dove International
- Non-robotic designs for: automating acrylic fiber production (Monsanto), high speed candy bar aligner (M&M Mars), automated malt ball inspection/ sorting system (Leaf Candy/Whopper) and a similar system for radishes (Tem-Cole).

Client: Bots, Inc., Mountain View, CA

Responsible for mechanical design and construction of a family of "personality" service robots for use in a pizza restaurant. The "showbots" needed several anthropomorphic features (moving eyes, mouth, neck and arms) to perform the entertainment. The "workerbot" required all of that plus a food-serving compartment for transporting two pizzas (any size) and other food items.

Patents

US Utility Patent 5,315,726: *Multipurpose Convertible Furniture Assembly*. Not named on patent. Acted as consultant to re-write the patent specification (it had been denied previously). Patent granted on basis of re-write.

European Patent EP 1308986 B1: *Plasma Etch Reactor With Dual Sources for Enhancing Both Etch Selectivity and Etch Rate*. Based on work done while at Applied Materials (patent holder).

US Provisional Patent 61/601,881, Utility Patent Pending (Application #13773129): *Method and Apparatus for Reducing Organic Waste by Rotary Desiccation*. Based on own work at R-NT.

Writing Portfolio

Note: does not include letters to the editor and op-ed pieces in local newspapers.

Professional Papers & Publications

Suspension of Disbelief, How Fans of Lost in Space can ignore the Technical Inconsistencies and Enjoy the Show;" Delivered at The Academy of Motion Pictures Arts and Sciences Technical Conference, May 2012.

Werner von Braun's "Mars Project, a 50th Anniversary Overview;" Delivered at National Association of Rocketry's Annual Conference, March 2002.

Designing End Effectors for ATE; Delivered at Test & Measurement World Expo, 14 May 1985.

Robots in Industry: An Overview for Students of Industrial Engineering, Delivered at Chabot College, 23 January 1985.

Implementing Robots With Automatic Test Equipment, Delivered at The American Society of Test Engineers Conference 13 November 1984.

Equipment Development for Automated Assembly of Solar Modules, DOE/JPL 955699-81/05, January 1982.

Process Development for Automated Solar Cell and Module, Production DOE/JPL 954882-80/21, June 1980.

Low Speed Wind Tunnel Tests of a Small Rocket (student paper), AIAA, May 1975.

Books

Spaceship Handbook: Rocket and Spacecraft Designs of the 20th *Century* (author / editor / publisher)

ARA Press, 2001, 534 ppg.

A popular level survey of theoretical, fictional and significant cancelled spacecraft programs. This is the standard reference for the National Association of Rocketry's "Concept Scale" contest. It has also gained very favorable reactions from aerospace professionals.

The Saucer Fleet (author/editor)

Apogee Books, 2008, 320 ppg.

An examination of the "flying saucer" phenomenon of the 1950's and '60s as seen through the movies and other entertainment media of the time.

2010: A Scrapbook Odyssey (editor/publisher)

ARA Press, 2010, 90 ppg.

A highly detailed survey of the filming models used in the 1984 movie 2010: The Year We Make Contact.

Lost in Space Design: No Place to Hide (editor/publisher)

ARA Press, 2011, 80 ppg.

A detailed history of the filming of the original pilot for the *Lost in Space TV* show. First of a series.

Jupiter 2 Technical Guide (editor/publisher)

ARA Press, 2011, 130 ppg.

A reference on the design and operation of the equipment used in the TV series *Lost in Space*. Told from within the story.

N-1: For The Mood And Mars, A Guide To The Soviet Superbooster (editor/publisher) ARA Press, 2013, 150 ppg.

A reference on the history and design of the Soviet moon rocket.

Periodical Articles

Overheard Cams Magazine (journal of the Alfa Romeo Association)

Well over 100 articles and columns from 1981 to 2001 (and a few sporadically since then) as editor, tech editor and editor-at-large.

LUNAR 'Clips (newsletter of the Livermore Unit of the National Association of Rocketry, LUNAR)

Dozens of articles and columns from 1993 to present as vice president, president and senior advisor. LUNAR 'Clips won the Rockwell Trophy for the best club newsletter in the nation for 2007.

Sport Rocketry Magazine (journal of the National Association of Rocketry)

- 1) Regular column on rediscovering rocketry after a two decade hiatus. The premise compared rocketry as a kid and as an adult stressing the similarities and differences. The column ran in the following issues:
- May/June, 1993, Introduction
- Aug, 1993, "Chub Roc" (making a rocket from a "Chubs" baby wipe dispenser)
- Dec, 1993, Vashon rockets (Freon-propelled)
- Aug, 1994, Flagging Enthusiasm
- Dec, 1994, Re-introducing the premise
- July/Aug, 1996, Interview with John Hench, designer of the Disneyland *Moonliner*
- 2) Stand-alone articles in this publication:
- Building An Astron Space Plane, Sept/Oct, 1992
- Rocketry by e-mail, Jan/Feb, 1993
- NARAM 36: The Eagle Has Landed, Dec. 1994
- Flying Astrocams in Theory and Practice, Jan/Feb, 1995
- Analysis of the Myst Island Rocket, Nov/Dec, 1998
- Sci-fi Scale Modeling: A future NAR sanctioned event; Nov/Dec, 1998
- Analysis of the Rotary Rocket *Roton*, May/June, 1999
- Analysis of Josie's Spaceship, Sept/Oct, 2000

- Fiction/Future Scale at NARAM 42, Jan/Feb, 2001
- Coverage of the Keynote Address at NARCON 2002, Jul/Aug, 2002 Note: also chaired the "Spaceship Archeology" track at the convention.
- Kit Review, Sprint ABM, Jul/Aug, 2002
- Book Review of Orion, the True Story of the Atomic Spaceship, Sept/Oct, 2002
- Hazards of the NAR Auction (humor), Jan/Feb, 2004
- You Can Be A Star! (staging a launch for a TV show), May/Jun, 2004
- History of the Mars Snooper (Part 1), Sept/Oct, 2004
- History of the Mars Snooper (Part 2), Nov/Dec, 2004
- Piñata Rocket (ghostwritten for another member), Sept/Oct, 2005
- Fiction/Future Scale at NARAM 48, Nov/Dec, 2006
- Fiction/Future Scale at NARAM 51, Nov/Dec, 2009
- Classic Model at NARAM 54, Nov/Dec, 2012
- Aerial Photo Interpretation (Part 1), Jan/Feb, 2013
- Aerial Photo Interpretation (Part 2), Mar/Apr, 2013

High Power Rocketry Magazine (journal of the Tripoli Rocketry Association)

- Glossary of Rocketry Terms, March/April, 1993
- On-site coverage of a Titan II launch from Vandenberg AFB, April, 1994
- Two more articles submitted, but the journal shut down before publication

Filmfax Magazine

- Issue #74: Analysis of *Die Frau im Mond* (Fritz Lang film) and the *Friede* Spaceship.
- Issue #80: Analysis of *Destination Moon* and the *Luna* Spaceship.
- Issue #85: Analysis of 2001: A Space Odyssey and its spaceships (Part 1).
- Issue #86: Analysis of 2001: A Space Odyssey and its spaceships (Part 2).
- Issue #96: Analysis of *The Day the Earth Stood Still* and Klaatu's Saucer (Cover story).
- Issue #97: Analysis of *Forbidden Planet* and the *C57-D* (Cover story, Part 1).
- Issue #99: Analysis of *Forbidden Planet* and the *C57-D* (Part 2).
- Issue #105: Analysis of *Earth vs. the Flying Saucers* and the alien saucers.
- Issue #108: Analysis of *War of the Worlds* and the Martian War Machines (Cover story, Part 1).
- Issue #109: Analysis of *War of the Worlds* and the Martian War Machines (Part 2).
- Issue #113: On-site coverage of the *Forbidden Planet* 50th anniversary event in Hollywood and a review of the collectors' DVD set.