

LINDY LIGGETT

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Results-driven, experienced leader of engineering and innovation teams, proficient at fast-paced product development, with experience in highly integrated hardware and software products.

Leadership	Rapidly promoted to director-level leadership position at SharkNinja. Led the development of Shark's first proprietary robot design, one year after entering the robotics business
Expertise	Skilled in all aspects of engineering complex, highly integrated systems: mechanical design and manufacturing, electronics, firmware and software
Team Development	Built the robotics engineering team from the ground up, bringing in six new engineers and developing their professional skills and capabilities to create a high-performing team
Communications	Reported project status to the President and executive leadership team in weekly meetings. Highly skilled at effective communications amongst a global team, including OEMs in Asia

EDUCATION

Massachusetts Institute of Technology

SM Mechanical Engineering, 2014

University of Southern California

BS Mechanical Engineering, 2009

PROFESSIONAL EXPERIENCE

SharkNinja Needham, MA

2014 – 2019

Director, Robot Platforms, Feb 2019 - July 2019

Responsible for all new product development, sustaining, and cost-out activities of two robot platforms

- Led design work for new subassemblies to relaunch 2018 SKU's in 2019 with better performance, higher reliability, and over 5% removed from product cost, resulting in \$1.4M margin improvement
- Managed and mentored team of 5 mechanical and project engineers working on field failures; new product development; validation testing, debugging, and design iteration; prototyping for new concepts
- Moved robotics group to Jira for tracking all hardware and system issues – creating workflow definition, system design, training over 100 global team members from Engineering, Testing, Quality, and Marketing
- Represented SharkNinja at the Massachusetts Technology Leadership Council testing summit

Engineering Manager, Robotics Engineering, Aug 2017 – Feb 2019

Drove design efforts and led sustaining activities for first two robot launches, leading to 10% market share (from no market presence one year prior) and first international robot launches for Shark

- Managed sustaining activity for first robotic vacuum product (customer feedback, teardowns, improvements at the factory and to next year's models) with two junior engineers – top five failure modes resolved in the next year's launch
- Senior member of design team on first robotics project on internally developed platform and software: new designs led to 10% decrease in components and service cost vs previous year, \$1.6M increase to margin
- Built test plan for subassembly and assembly-line checks from the ground up; Extensive experience with high volume manufacturing with far east suppliers and OEM's
- Managed software sprints with external partner using Jira while internal software team was being formed
- Used cloud data to monitor trends, diagnose issues, find super users, evaluate efficacy of software patches

Senior Mechanical Engineer, Robotics Engineering, April 2016 – Aug 2017

Member of team making Shark's first robotic vacuum; created requirements and tests based on competitive performance and consumer feedback; managed design changes for OEM product

- Engineer on company's first robotic vacuum and app-enabled program, modified from OEM offering; Successfully launched product in 7 months, becoming second highest market share in robotic vacuums
- Experience in designing suspension, gearboxes, filtration, physical user interfaces; choosing and integrating sensors; specifying and testing motors
- Conducted extensive in-home and user testing to guide test protocol and spec development, prioritize work for most frustrating aspects of robot experience; IP reviews leading to design changes for launch in the US; cleaning testing and development for changes to the cleaning system
- Found and managed external consultants to accelerate design and testing timelines, quickly addressing technical gaps in newly-formed engineering and testing teams

Mechanical Engineer, Shark Engineering, Nov 2014 – April 2016

Lead engineer on several upright vacuum projects from engineering builds and followed them through production into field; created consumer-facing and investigative capabilities within the organization

- Lead engineer on Shark vacuum cleaner project; guided project through three engineering builds: teardowns, validation testing, root cause analysis of test failures, tolerance stack analysis, user testing
- Supported four new vacuum cleaner launches in China at supplier, sub-supplier level: audits of supplier receiving and measuring capabilities, root cause analysis on production lines, late design changes
- Created new role within engineering that analyzed customer service call logs and online reviews for newly-launched products; uncovered field issues, root caused with phone calls and in-home visits; summarized findings in weekly field report meetings, fed back into test protocols, next generation product development; built business-wide protocols used to diagnose and resolve field issues across all categories

Massachusetts Institute of Technology Cambridge, MA

Graduate Student 2011-2014, Product Engineering Processes Teaching Assistant Fall 2013

Toy Product Design Instructor, Spring 2013

- Planned, wrote, presented lectures on design process, innovation, brainstorming, sketching, storyboarding, proof of concept and appearance prototypes, leading 16 teams to final functional prototypes, presentations

Hewlett-Packard Vancouver, WA

2010 – 2011

Hardware/Design Engineer, Feb 2010-Aug 2011

Junior member of design team – brought parts through validation to final design then joined large format team in its early design phase to transfer knowledge from first product to the larger version of it

- OfficeJet Pro 8600 series: owned 14 parts in the carriage subsystem; managed plastic, sheet metal, mylar parts through prototyping and testing phases to meet performance, assembly, environmental, cost requirements
- DesignJet T520 Series: Designed new parts and assembly procedure for carriage positioning system that saved \$7 on large format series (24"-36" width) due to lower material cost; Patent US 9,375,959: Locking Mechanism for an Encoder Strip
- Created test scripts and flowcharts to identify root cause of carriage defects, speed up error debugging across multiple groups with new technicians