

Mihika Hemmady

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Contact

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San Francisco, CA



Education

Stanford University

M.S. in Mechanical Engineering

Mechatronics & Manufacturing
Product Development for Social Impact
Sept 2014 – Dec 2017 • GPA: 3.9/4.0

B.S. in Biomechanical Engineering

Minor in Spanish
Sept 2010 – June 2014 • GPA: 3.7/4.0

Skills

Mechanical Design

Siemens NX, SolidWorks
Tolerance Analysis & 2D Dimensioning
DFM, DFA
Architecture Development
Electrical & Module Integration
3D Printing, Machine Shop, CNC

Manufacturing

Sheet Metal
Injection and Compression Molding
Die-casting
CM & Vendor Management
Data Analysis, Process Capability
Failure Analysis/Corrective Action

Languages

R, Python

Interests

Social Impact Work (see portfolio),
International Travel,
Piano, Singing
Figure Drawing

Experience

Google | Nest

Product Design Engineer

Mountain View, CA

07/18 - Present

- Shipped Nest Wifi Point and Nest Audio (>1M+ devices) from architecture development/prototype builds through mass production; currently working on a gen 1 product from concept "sketch" (shipping in 2022). Promoted from L3 to L4 Engineer.
- Owned the design and execution of a significant electro-mechanical subsystem (speaker module) and the main chassis of the product; designed and integrated injection molded, die-cast, sheet metal, PCBs, FFCs, and compression/co-molded parts into shipped products.
- As one of two PD engineers, developed product architecture from concept, ensuring the system met all product requirements - audio performance, ID/UX intent, ME architecture, ESD/grounding, thermal & structural specs, and reliability testing (drop, environmental).
- Provided PD direction and led weekly meetings with Asia-based module suppliers and CM teams, including directing design and FA/CA work.
- Rapidly prototyped a new UX experience, utilizing first principles (FBDs) and modular functional prototypes to allow cross-functional team to quickly evaluate multiple feasible concepts, resulting in a concept down-selection within 1 month that is moving forward in development.
- Resolved urgent system level issues such as RF desense, rub & buzz (audio quality), and cosmetic gap/step on site at factory builds in Asia by carrying out FA, developing DOEs, and implementing CAs based on data gathered.
- Addressed a new issue - device walking (moving during audio play) - that resolved the issue and also provided direction for future products: designed test procedure, created pass/fail spec, identified designs to reduce walking, and developed a model to predict walking in future devices

Kenu | Consumer Electronics Startup

Mechanical Design Engineering Intern

San Francisco, CA

06/16 – 09/16

- Collaborated with Industrial Designers to develop four new product concepts in line with the Kenu brand. Prototyped new concepts to quickly evaluate ID and mechanical ideas for down-selection.
- Developed product architecture and PD CAD models based on ID master models for two new products; Designed aluminum & plastic parts, which were sent to China for CNC prototyping.

Social Entrepreneurship Lab | d.school & GSB

Mechanical Engineer & Project Lead

Stanford, CA

01/15 – 01/16

- Developed an economical hazelnut solar drying crate (d.hydrate), aimed at aiding Bhutanese farming families to ensure the quality of their harvests. During in-field testing, the crate was 30% more effective than other drying alternatives.
- Designed multiple iterations of the crate in wood, steel and plastic, making manufacturing & design decisions to reach a \$5/crate cost target.
- Created environmental simulation chambers and a repeatable experimental procedure to make data-driven design decisions.
- Led an 8-person international team of engineers and business executives.