

# Andrew Marks

Mechanical Engineer and Designer



## Work experience

present  
↑  
2022

### Manufacturing Engineer

*Advanced Technology Team*

*Lockheed Martin - Sikorsky Aircraft*

- Benchmark and implement new technologies and materials into current manufacturing processes
- Oversee additive centers with 23 3D Printers spanning 4 different techniques - Fused Filament Fabrication, Selective Laser Sintering (SLS), Stereolithography, and MELD, a new metal additive process based on friction stir welding
- Create and perform programs to validate the part quality of new SLS materials and the viability of using MELD for production parts
- Manage the preparation and manufacture of all 3D printed production parts
- Lead projects to increase quality, consistency, and cost-effectiveness of parts by designing new products and improving current manufacturing procedures

2021

### Product Design Intern

*Gyre9 LLC*

- Designed and executed research experiments to test product performance
- Modeled, sourced materials for, and built prototypes to improve product performance which lead to over 50 percent increase in product effectiveness
- Organized and presented findings to client to further product development

2020

### Product Design Intern

*Tanaka Kapec Design Group*

- Conceptualized and designed new packaging and products for 3 different consumer facing projects
- Modeled and created prototypes for over 40 design concepts for user testing and client evaluation
- Performed and presented testing to prove viability and usability of different prototype concepts
- Interfaced with clients to present concepts and down select to best designs



## Education

2022

### BS in Mechanical Engineering - 3.9

*ABET Accredited*

*Brown University*

#### Relevant Courses

- Design Principles and Process
- Material Science
- Structural Analysis
- Industrial Design

2024

### Green Belt in Lean 6 Sigma

*Lockheed Martin*



## Contact



#### Email

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#### Portfolio

AndrewJMarks.com



## Skills

### Additive Manufacturing

- FFF - Stratasys, Markforged, Prusa
- SLS - EOS
- SLA - Formlabs
- Other - MELD

### Misc. Manufacturing

- Laser Cutting/Engraving
- Soldering
- Circuitry

### Computer Aided Design

- Solidworks
- Onshape
- Catia

### Programming Languages

- Matlab
- Java
- Python

### Graphic Design

- inDesign
- Photoshop
- Illustrator



## Personal Projects

### Techxagons

A children's museum exhibit comprised of magnetic hexagonal tiles with electronics embedded in them. Children can connect the techxagons to create different circuits allowing them to safely explore the concept of electricity.

### Hive

A hanging installation made from cardboard. The hive uses cameras to recognize four users and creates a changing soundscape based on their distances from the hive.