

## Work Experience:

### **Fikst Product Development** *Mechanical Engineer Co-op* Wilmington, MA **January – August 2025**

- Designed and assembled an updated version of a 6 axis and 2 axis robotic arms for the largest eCommerce company. The arm's intended functionality is to move items and act as training platforms for programmers.
- Created 10+ custom catalog parts with modularity allowing for expedited design and assembly for future arms
- Improved testing mechanism used to ensure the electronics within the joints of the robotic arm are working as intended for 30+ million cycles. Collected, analyzed and presented data from the various rotary electronic joint designs.
- Designed a custom modification to crimping tool allowing it to work for a specific 90-degree crimp used in robotic arm actuators.
- Hands on testing and prototyping for the mobile drive unit robots used to move product racks. Worked with the design team to test out 4+ prototypes for the redirection of accidental liquid spillage.

### **Massachusetts Institute of Technology** *Mechanical Engineer Co-op* Cambridge, MA **January – August 2024**

- Lead designer and fabricator at the MIT Bio-Mechanical Engineering Department Fabrication Lab under prof Traverso.
- Coordinated the mechanical designs for bio-medical devices with professors, pos-doctoral and graduate students in over 4 cross disciplined projects. Specializing in small devices that are inserted into the human body that use mechanical actuators such as magnets, springs, or dissolvable material, all of which were then tested on animals.
- Meaningfully contributed to design, fabrication, testing and documentation of four plus novel drug delivery systems. Optimized parts using design matrices working seamlessly with parameterized Fusion 360 models.
- Thrived in the high paced and rapid iteration environment averaging the manufacturing of 20 products and 3 designs/iteration per week.
- Operated and maintained lab equipment, including 3D printers, injection molder, micro-compounder, and CNC mill.
- Authored excerpts for papers of these projects and will be considered for mentions in patents on select projects where significant design contributions were made.

## Skills and Interests:

**Applications:** SolidWorks, Fusion 360, Abaqus (Simulation software), Mach 3(CNC software), OMAX (water-jet software), UCP (laser-cutter software), OpenSIM, Large variety of 3D slicers, Notion

**Manufacturing:** 3D printing (SLA, FDM, Poly-jet), Tormach CNC mill, Manual lathe, Shop tools Carver Press, U4 Universal laser, Xplore micro-compounder and injection molder, Cerakote spray station, Water jet, Electron microscope, Casting using flexible and static molds

**Programming Language:** MATLAB, Python

**Interests:** CAD, Robotics, Wearable Robotics, Tinkering, Automotive, Remote-Control Cars, Tennis, Fencing and Ping Pong

## Education:

### **Northeastern University, Boston, MA**

Candidate for Undergraduate in Mechanical Engineering **GPA: 3.7 (Dean's List)** **Expected Graduation: 2026**

**Relevant Courses:** Heat Transfer, Electrical Engineering, Wearable Robotics, Dynamics, Computation and Design, Thermodynamics, Material Science, Mechanics of Materials, Cornerstone of Engineering, Statics, Physics 1 and 2, Calculus 1, 2 and 3, Differential Equations, Public Speaking, Measurements, Probability and Statistics

**Study Abroad:** Greece (Fall 2022) **Clubs:** NU Rover Team, Northeastern Fencing Team

## Design Projects:

### **Rocker Mobility System, NU Mars Rover Team, Boston, MA** **Fall 2025-Current**

Designed and manufactured a swerve-compatible rocker mobility system with diff bar. Utilized master modeling and combination of 3D printed and aluminum water jet parts to develop a lightweight design. [Project Details](#)

### **Motorized Electric Longboard, High School Capstone Project, Pearl River, NY** **Spring 2021**

Researched and developed a fully custom motorized longboard using 3D design and machining to mount electrical components while maintaining the structural stability and safety of the longboard. [Project Details](#)

### **First FTC Robotics Team, "9773 Robocracy" (Community Team), Pleasantville, NY** **2019-2021**

*CAD Designer, Builder, Driver*

Collaborated with 7 teammates to design and build competition robots using Fusion 360 and Mach 3, manufacturing custom 3D-printed and CNC aluminum parts with drivetrain components (mecanum/omni wheels, gears, belts, chains); won the 2020/2021 FIRST FTC NY Excelsior State Championship and qualified for World Finals. [Project Details](#)