

Mechanical Engineering Portfolio



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B.S. Mechanical Engineering, Minor in Robotics

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About Me



As a mechanical engineering student, my passions lie in designing medical devices and medical robotics, with the core objective of solving problems and improving lives for both patients and physicians. I am currently enrolled in NYU Tandon as an undergraduate, and I plan on pursuing a Master's Degree to learn and understand more about how to design with healthcare outcomes in mind.

Soft Robotic Humanoid Hand

Engineering Team Project



Role: Mechanical Engineering Team Lead

Date: September - December 2025

Skills: SolidWorks CAD, FDM 3D printing, silicone molding, Ansys FEA

Soft Robotic Humanoid Hand

Engineering Team Project

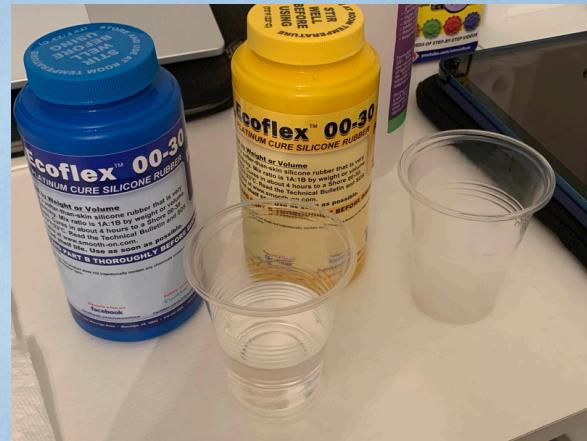


The humanoid hand was 3D-printed with PETG-CF filament to improve durability and resistance against haptic feedback motors.

TPU 95-A filament was used to 3D-print skin overlays for the hand, allowing for more comfortable and flexible human-robot interaction.

Soft Robotic Humanoid Hand

Engineering Team Project



To create both a right and a left robotic hand, ten fingers were manufactured in total using silicone molding. Each finger requires four 3D-printed mold parts, consisting of a pneumatic mold assembly for the pneumatic system and a sensor mold assembly for the sensor integration.

Soft Robotic Humanoid Hand

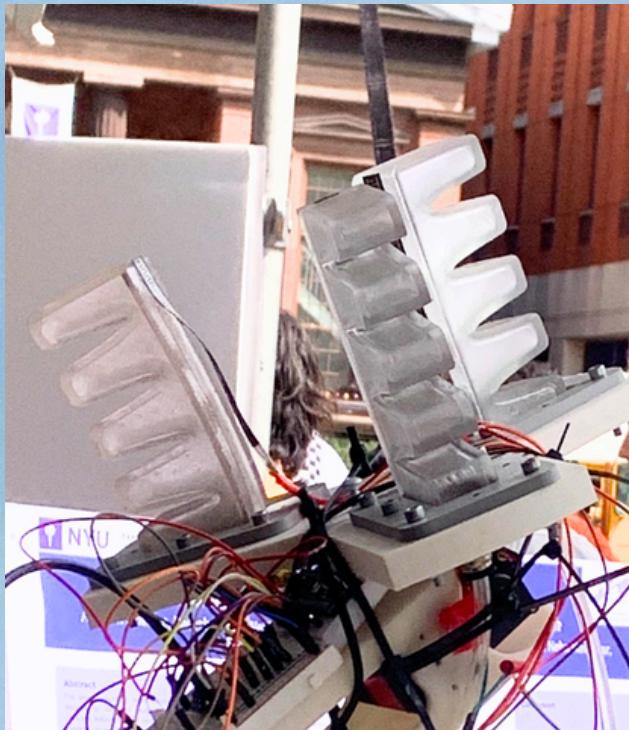
Engineering Team Project



The hand was attached to a robotic arm and installed onto a humanoid assembly as shown above. The hand system has promise for applications with prosthetics, humanoid robotics, and rehabilitative robotics.

Soft Robotic Gripper

Engineering Team Project



Role: Mechanical
Engineering Member

Date: January - May 2025

Skills: SolidWorks CAD,
SLA 3D printing

Autonomous Rover Wheel

Engineering Team Project



Role: Mechanical Engineering Member

Date: January 2024 - May 2025

Skills: Onshape CAD, basic manufacturing

Soft Rehabilitative Exoskeleton

Work Experience - Summer 2025

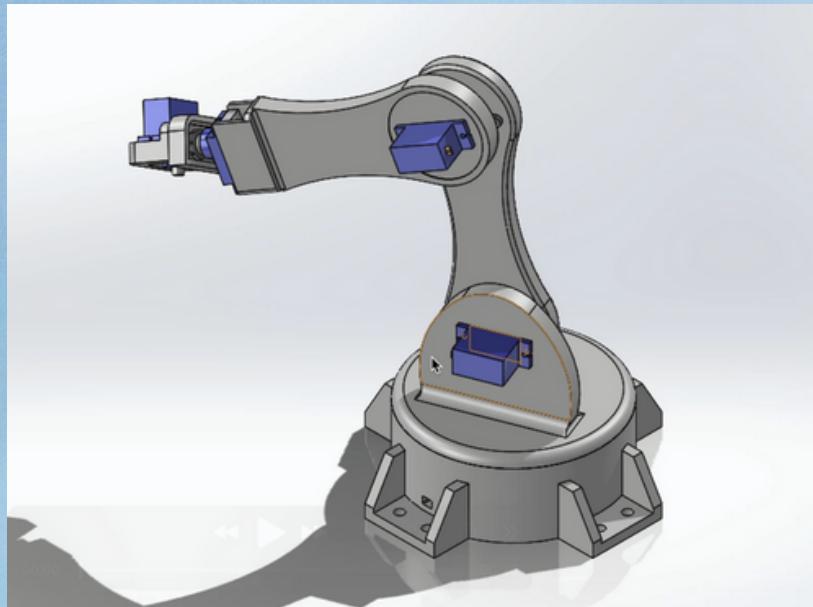


Role: Research Assistant

Skills: SolidWorks CAD,
FDM 3D printing, Ansys FEA

Robotic Arm

Personal Project - Summer 2025



Robotic Hand

Personal Project - Summer 2025

