SERVANDO AVALOS

Cambridge, MA | Houston, TX | Portfolio: MechE-Servando.com

EDUCATION

Massachusetts Institute of Technology *Cambridge, MA*
Bachelor of Science in Mechanical Engineering (Product Design Concentration) *May 2026 | GPA: 4.6/5.0*

RELEVANT EXPERIENCE

Axon Enterprise *Summer 2025*
Hardware Engineering Intern

- Designed and iterated an acrylic test fixture for an early-stage body-worn camera prototype, enabling efficient hardware debugging and testing across 50 global electrical and software teams.
- Traveled to Taiwan to support on-site prototype assembly of an unreleased body-worn camera, directly assisting in physical builds, documenting process feedback, and functional testing during the ME Proto phase.
- Conducted mechanical tolerance analysis and top-down CAD modeling using Creo, optimizing component fit and foam compression within multi-material enclosures in dense consumer electronic assemblies.

KULR Technology *Summer 2024*
Prototyping and Testing Engineering Intern

- Led the research and design of a BB-2590 lithium-ion battery pack on SolidWorks based on military standards using injection molding design techniques.
- Assisted with manufacturing and assembly processes for space and defense battery packs in a fast-paced startup environment.

MIT Arcturus Autonomous Robotics *July 2023 – February 2025*
MechE Subteam / Media Lead

- Planning the strategic design of a watertight command module using OnShape to meet custom electrical requirements.
- Implemented strategic posts resulting in a 34% follower increase (200+ followers) on social media platforms.

MIT Laboratory for Aviation and the Environment *September 2023 – February 2024*
Undergraduate Researcher

- Manufactured a single-stage thruster integral in advancing fixed-wing ionic aircraft propulsion research.
- Designed and prototyped enhanced components using SolidWorks, strategically addressing critical failure points in the thruster to improve overall structural reliability.

RELEVANT COURSEWORK

Design and Manufacturing II (2.008) *Fall 2024*

- Applying DFA and DFM principles to design and manufacture 100 injection molded yo-yos in a team of 5.

Design and Manufacturing I (2.007) *Spring 2024*

- Individually designed and manufactured an aluminum robot to complete various tasks for a class competition, finishing in the top 32 of 147 students.

Mechanics and Materials I (2.001) *Fall 2023*

- Problem solving for statically determinate and indeterminate systems in axial loading, torsion, and bending.

Others

- How to Design (4.021); Electronics for Mechanical Systems (2.678); Dynamics and Control I & II (2.003/4), Thermal-Fluids I (2.005)

SKILLS

Software: Creo | SolidWorks | Fusion 360 | Python | Arduino IDE | MATLAB | CAD | CAM
Hardware: 3D Printing – FDM, SLS, SLA | Mill | Lathe | Waterjet | CNC | Laser Cutter
Other: Fluent in Spanish