# Carter Tucker

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## EDUCATION

**Massachusetts Institute of Technology**, Cambridge, MA — Expected May 2028
Bachelor of Science in Mechanical & Aerospace Engineering
**GPA:** 5.0/5.0

**Latexo High School**, Latexo, TX — May 2024
Diploma

## RELEVANT COURSEWORK

Physics I/II, Differential Equations, Mechanics of Materials I, Dynamics & Controls I, Numerical Computation, Electronics for Mechanical Systems

## EXPERIENCE

**Sabine STEM Camp**, Gladewater Sabine, TX — July 2024
Facilitator and Instructor — July 2025

- Taught 50+ students across Geometry and Algebra I/II through Calculus II, strengthening problem-solving skills and their general understanding of math.
- Administered and evaluated math and calculator exams

**Physics I/II and Maker TA**, Cambridge, MA — September 2025 - Present

- Lead weekly office hours
- Evaluate homework, labs, and exams to provide feedback on growth and technical accuracy
- Guide students in creating maker projects using CAD-based design, 3D printing, circuit design, and other rapid manufacturing methods

**Tutor and Curriculum Developer (non-profit)**, Crockett, TX — December 2024 - Present

- Tutored 15+ high school students for SAT and ACT math sections
- Developed tailored worksheets, tests, and solutions for elementary and high school students, reinforcing in math and programming skills.
- Led summer summer STEM workshops at the Crockett Public Library on electricity and programming fundamentals

## MAJOR PROJECTS

**Aerodynamic Lightweight Teardrop Camper** (Fusion 360, Ansys, KiCAD)

- Designed CAD model for a two-person camper optimized for aerodynamics and weight
- Applied Ansys simulations and general build standards to design a lightweight camper towable by small cars

**Electric Skateboard** (Fusion 360)

- Designed a CAD model for a Back to the Future-inspired electric skateboard with a modular battery system
- Assembled a functional prototype using readily-available parts

**Speaker Assembly and Enclosure** (Fusion 360, KiCAD)

- Modeled and assembled a speaker enclosure tuned to driver specifications and optimized to reduce chuffing and other unwanted resonance
- Assembled and wired the amplifier, drivers, and I/O ports

## SKILLS

Familiarity with: Fusion 360, SolidWorks, Python, JavaScript, KiCAD, MATLAB
Language: Basic proficiency in Spanish