



AARON BECKER

+1 (650) 533-3585 | ambecker@mit.edu

Bay Area, CA & Cambridge, MA



github.com/aaroexxt



aaronbecker.tech



linkedin.com/in/aaron-m-becker

ABOUT

First-year at MIT with a passion for electromechanical engineering and programming challenges; excited to tackle new challenges in robotics, space, and autonomy.

Massachusetts Institute of Technology, Class of 2025

Bachelor of Science in Engineering

Expected Graduation: 2025

Expected Major: 2A-CIR (Controls, Instrumentation and Robotics)

Burlingame High School, Class of 2021

Unweighted GPA 4.0 / Weighted GPA 4.21

Valedictorian - Class of 2021

Skyline College, College of San Mateo

Dual enrollment technical classes, Fall 2020-Spring 2021 / GPA 4.0

Avionics and Liquid Propulsion, MIT Rocket Team (Sep 2021 - Present)

- Developed embedded firmware for integrated rocket computer
- Sensor testing and integration: KX134 High-G Accelerometer
- Assisted with test stand assembly for 1.6 kN Ethanol/LOX engine

Autonomous Systems Intern, Rain Industries (Jun 2021 - Aug 2021)

- Developed hardware-in-the-loop bench test avionics setup
- Assisted with hardware integration of actuators, power system, and sensors on the vehicle
- Participated in test campaign to evaluate engine instrumentation and performance
- Worked with proprietary vendor autopilot software for vehicle configuration and ground station setup

Captain, Engineering, FRC #5026 (May 2019 - May 2020)

- Responsible for robot mechanical design and training of members
- CNC machinist; extrude machining jig + CAM for max efficiency

2018-2019: Engineer, BHS FRC #5026, Captain, BHS FTC #7316

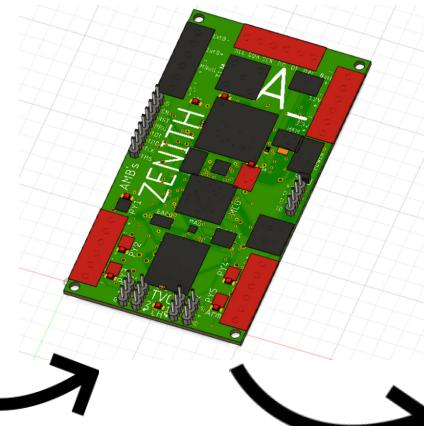
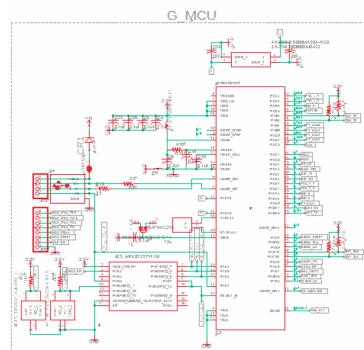
FRC "Deep Space" World Championship Winner, Houston TX

- 4th place Alliance Captain, Saratoga FTC Qualifier

EMPLOYMENT & EXPERIENCE

RECENT PERSONAL PROJECTS

ZENITH - Thrust-Vectored Rocket



See technical video: <https://bit.ly/zenith-tvc>

Developed ARM M0-based flight computer for real-time control of thrust vectored model rocket. 10dof IMU (gyro, accel, mag, baro) and GPS for localization, packet LoRa radio for telemetry, onboard flash and SD card for data logging. Carefully optimized BOM and board layout for launch forces.

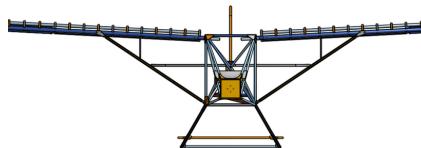
ZenithMKII (in progress) selected for competitive ProjX funding by MIT

Electric Skateboard



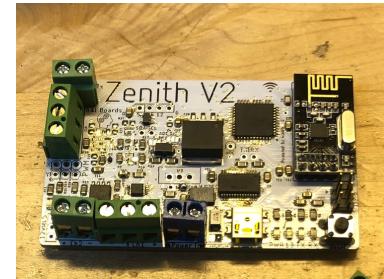
Custom artwork, PCB control electronics (right)

Flight Club



FAR Part 103-legal ultralight plane designed by students
flightclub aerospace.com

PCB Development



Atmega-1284P based, 2.4GHz radio, PWM and switched MOSFET out

COMMUNITY SERVICE

SKILLS



Programming in C, Java, Javascript, Python, Shell



Mechanical Design using Solidworks + Simulation



Full-stack web design, HTML/JS/CSS + Node.JS



Experience with design and BOM selection for advanced PCBs in Eagle/Altium

See more projects at:
aaronbecker.tech

2020: COVID-19 Mask Production

3-D printed and delivered over 500 PPE mask parts to local hospital (Kaiser) in COVID-19 hotspot (Santa Clara), employed system that monitors print remotely and automatically pauses print if issue