

DAVID LOBO

Mechanical Engineer

📞 (210) 782-1312 ✉️ lobo.da@northeastern.edu 🔗 [linkedin.com/in/david-lobo](https://www.linkedin.com/in/david-lobo)



EXPERIENCE

Manufacturing & Process Engineer Co-op 📅 06/2023 – 12/2023 **TESLA** 📍 Austin, TX

- Automated high-speed manufacturing systems, reducing the primary source of daily unplanned downtime by 26% and boosting production throughput by 11% to meet growing demand.
- Collaborated with cross-functional teams to drive process improvements, focusing on workflow optimization and aligning production strategies with operational goals, gaining valuable insights into large-scale mass manufacturing.
- Leveraged Lean Six Sigma to increase machine uptime by 4.7% generating up to \$95,000 in daily production improving the yield.
- Led the design and fabrication of custom components such as mounts, guards, and sensors, improving safety and efficiency of the assembly line.
- Implemented poka-yoke (mistake-proofing) techniques and trained technicians for reducing errors and improving yield.

Mechanical Design Engineer Co-op 📅 06/2022 – 12/2022 **Kuva Systems** (Environmental services) 📍 Cambridge, MA

- Designed, prototype, and filed ECOs and supported product development for a camera that detected and quantified methane leaks to reduce emissions.
- Conducted RCA and developed IP65-rated seals while reducing labor costs and improving productivity by 70%, streamlining the assembly.
- Applied DFM principles and sourced injection-modeled parts, reducing manufacturing costs by 75% to make the cameras price more accessible.

Co-Founder & Former CEO 📅 01/2023 – 10/2024 **Juze Energy** (Powerbank rental startup) 📍 Monterrey, Mexico

- Directed teams across operations, marketing, and sales to successfully launch and grow a Powerbank rental network to more than 160 locations and 20k users.
- Designed and implemented the business model, driving strategic decisions and ensuring long-term sustainability.
- Led the development of the software and technology, ensuring seamless operations and enhanced customer experience.
- Managed finance rounds, securing capital in growth and overseeing financial projections and risk assessments.
- Developed a recognizable brand and ensured strong, market-fit, driving increased market presence and customer engagement.

Co-Founder, Pilot, & Director 📅 2019 – Present **Drone Brothers** (Recreational drone services) 📍 Monterrey, Mexico

- Established an aerial production business, delivering aerial footage for large events and high-profile commercial projects.
- Integrated a system that allowed us to live stream from our drone to the screens on-stage, innovating and differentiating us from our competitors.
- Expertly designed, fabricated, and programmed ultralight custom drones, driving innovations and enhancing performance by more than 15%.
- Organized workshops and ensured safety standards, sharing expertise in drone assembly and coordinating large-scale productions with cross-functional teams.

INTERNSHIPS 📅 2019 - 2021

AEROVANT: Collaborated on industrial drone operations, conducting LIDAR surveys, analyzing data for infrastructure inspections, and maintaining the fleet.

ASESA: Assisted aircraft maintenance teams, digitized flight logbooks to optimize schedules, and managed parts requests and maintenance tasks for dynamic components.

SUMMARY

Mechanical engineer passionate about leveraging technology to drive innovation and improve systems. Proven track record in high-impact projects, from developing cutting-edge drones to optimizing manufacturing processes at scale. I continuously seek opportunities to push boundaries and deliver measurable results.

EDUCATION

B.S. in Mechanical Engineering **Northeastern University** 📅 08/2019 - 12/2024 Graduation: December 2024 📍 Boston, MA

- GPA: 3.5 – Cum Laude
- Relevant Courses: Mechanical Design, System Analysis and Control, Thermal System Analysis & Design, Mechatronic Systems, Mechanical Computation FEA, Dynamics, Fluid Mechanics, Material Science, Computer Science, Innovation & Entrepreneurship, Accounting, Business Administration.

Capstone Project – High Speed Filming Drone
Currently leading the developing one of the fastest filming drones in the world, engineered for exceptional aerodynamics and capable of reaching speeds exceeding 400 kph. Designed with advanced maneuverability and precision, this FPV multirotor will capture high-speed footage of an Indy car traveling a full lap around the Indianapolis Motor Speedway.
[High Speed Filming Drone Article](#)

Mentor, Northeastern UAV Club
Guided a group of engineering students in the design and assembly of FPV drones, hosting workshops on aerodynamics, flight controllers, and safety protocols. Helped launch several successful drone projects for the university's aerial robotics team.

SKILLS

- Project Management
- Product Engineering
- CAD
 - SolidWorks
 - Fusion 360
- Simulation and Analysis Software
 - CFD: SolidWorks & AirShaper
 - FEA: Abaqus
 - MATLAB, Simulink
- Rapid Prototyping – Advanced FDM, SLS, SLA
- Mechanical Part Design – DFM, DFA, GD&T
- Manufacturing – Inj. Molding & Sheet metal
- Mechatronics/Embedded Systems
- Programming: Python, C/C++

Certifications

- [Lean Six-Sigma Black Belt](#)
- [SolidWorks CAD Design Professional – CSWP](#)

LANGUAGES

English	Native	● ● ● ● ●
Spanish	Native	● ● ● ● ●