

Lucas Flowers

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EDUCATION

Purdue University, John Martinson Honors College

B.S. Robotics Engineering Technology

West Lafayette, IN

Expected May 2030

Phoenix Union Bioscience High School

Engineering-Focused Curriculum; GPA: 3.9 / 4.7

Phoenix, AZ

May 2026

TECHNICAL SKILLS

Programming: Java, Python, C, JavaScript, SQL, HTML/CSS

Robotics & Controls: Control systems, autonomous systems, embedded systems, sensor integration, actuator control, real-time systems, subsystem integration

Engineering: CAD, Autodesk Fusion 360, prototyping, rapid prototyping, electronics, electrical wiring, mechanical assembly, 3D printing, welding

Software & Tools: WPILib, Git, GitHub, Linux, VS Code

ENGINEERING EXPERIENCE & LEADERSHIP

Phoenix Forge — GateWay Community College

Engineering Intern

Phoenix, AZ

Sept. 2025 – May 2026

- Designed and fabricated functional engineering prototypes using metalworking, welding, woodworking, 3D printing, and rapid-prototyping workflows to translate concepts into physical components
- Operated engineering and fabrication equipment while applying technical problem solving, prototyping, measurement, troubleshooting, and safe shop practices
- Supported makerspace members with equipment operation, fabrication processes, troubleshooting, and technical guidance across mechanical and prototyping workflows

FIRST Robotics Competition — Teams 11100, 2375 & 6833

Founder, President, Lead Programmer & Control Systems Lead

Phoenix, AZ

Sept. 2022 – Present

- Founded and led FRC Team 11100, recruiting 10+ students, establishing engineering operations, securing sponsorships, and coordinating cross-functional robot development
- Designed and programmed competition robot control systems in Java and WPILib, integrating sensors, actuators, autonomous routines, teleoperated control, and multiple robot subsystems
- Developed and tested autonomous and real-time control behavior, troubleshooting software, electrical integration, sensor feedback, actuator behavior, and subsystem interactions on competition robots
- Led control systems development across multiple competition robots and mentored teammates in programming, electrical integration, CAD, troubleshooting, and engineering fundamentals
- Managed a \$5K+ robotics team budget, coordinating purchasing, expense tracking, equipment needs, and competition preparation

ENGINEERING PROJECTS

Makers of Change — Southwest Human Development

Embedded Systems Engineering Finalist

Phoenix, AZ

Oct. 2025

- Selected as one of nine statewide finalist teams from more than 90 teams across Arizona
- Developed an embedded control system for an assistive-technology prototype designed to improve accessibility for a child with disabilities, translating user needs into engineering requirements and system behavior
- Integrated hardware and control logic while iterating the prototype through testing, troubleshooting, and design revisions based on user requirements and team feedback
- Collaborated on a five-student engineering team to design, prototype, test, and refine a functional assistive-technology system

AWARDS & CERTIFICATIONS

Awards: FIRST Dean's List Semi-Finalist (2024)

Certifications: Autodesk Fusion Certified User; IT Specialist Certifications in Java, Python, JavaScript, HTML & CSS; Arizona Engineering Technical Skills Assessment