

Lucas Flowers

West Lafayette, IN | (602) 784-2043 | contact@lucasflowers.net
[linkedin.com/in/lucas-flowers-phx](https://www.linkedin.com/in/lucas-flowers-phx) | lucasflowers.net

SUMMARY

Robotics Engineering Technology student in Purdue's John Martinson Honors College. Co-founded Team Epsilon and built its vision-guided robot software as the team's sole programmer. Designed a driver dashboard PCB for Purdue Electric Racing. Interested in building robots that connect intelligent software with real hardware.

EDUCATION

Purdue University, John Martinson Honors College

Bachelor of Science in Robotics Engineering Technology

West Lafayette, IN

Expected May 2030

Phoenix Union Bioscience High School

High School Diploma, Engineering-Focused Curriculum

Phoenix, AZ

May 2026

Wentworth Institute of Technology – Impact Lab

Robotics Pre-College Program

Boston, MA

Jul. 2024

TECHNICAL SKILLS & CERTIFICATIONS

Programming: Java (WPILib), Python, C, JavaScript, SQL, HTML/CSS

Robotics & Embedded: PID + feedforward, PhotonVision, AprilTags, Raspberry Pi, GPIO, STM32

Tools & Fabrication: Altium, Fusion 360, Git, Linux, Flask, CNC, welding, 3D printing, electrical wiring

Certifications: Autodesk Fusion Certified User; IT Specialist: Python, Java, JavaScript, HTML & CSS; Arizona Technical Skills Assessments: Software & App Design, Engineering

ENGINEERING EXPERIENCE & PROJECTS

FIRST Robotics Competition – Team Epsilon (11100)

Founder, President & Lead Programmer

Phoenix, AZ

May 2025 – May 2026

- Co-founded an independent team with 10+ students; raised \$20K+ through grants and sponsorships.
- As sole programmer, built a vision-based auto-aim system using PhotonVision AprilTag pose estimation and a ballistic solver for launch angle and flywheel speed; reached approximately 80% shot accuracy in practice.
- Programmed PID + feedforward motor control and swerve drive in WPILib Java; tested control logic in simulation before robot hardware was available.
- Team earned the Rookie All Star Award at the FIRST Utah Regional and the Arizona Robotics League Breakthrough Award. Provide remote software and web support (Aug. 2026 – Present).

Bluey Jamboard – Makers of Change

Lead Programmer, Southwest Human Development Challenge

Phoenix, AZ

Oct. 2025

- Lead programmer on a five-student team building a Raspberry Pi game board for a child with cerebral palsy; wired GPIO buttons and set up the display and startup behavior.
- Changed the game from balloon-pop to multiplayer basketball after user testing; team placed among nine statewide finalists from 90+ teams.

High-Altitude Weather Balloon Camera System

Camera Systems Lead, Bioscience E-Tech Club

Phoenix, AZ

Oct. 2025 – Feb. 2026

- Payload flew to 90,000 ft and captured two hours of 4K video from both cameras with no data loss.
- Built Python recording scripts for a Raspberry Pi dual-camera system with recording on power-up and a Flask interface for testing and configuration.

Phoenix Forge Makerspace – GateWay Community College

Engineering Intern

Phoenix, AZ

Sep. 2025 – May 2026

- Designed and built a paper holder for a large-format printer using CNC routing, welding, and 3D printing.
- Helped makerspace members use fabrication equipment and follow safe shop practices; trained on welding, lathe, CNC, laser cutting, woodworking, and 3D printing.

PURDUE ORGANIZATIONS

Purdue Electric Racing

Member, Low Voltage Systems

West Lafayette, IN

Aug. 2026 – Present

- Completed an STM32G474CET6 driver dashboard PCB design in Altium for onboarding Part 2.

Purdue Professional Ambassadors

Member

West Lafayette, IN

Aug. 2026 – Present