



Who We Are and What We Represent

Arizona Autonomous (AZA) is a dedicated team of interdisciplinary students at the University of Arizona working on competing in competitions relating to autonomous planes and cars. AZA is planning on competing in the 15th annual AUVSI Student Unmanned Aerial System (SUAS) Competition. AZA is also dedicated to community outreach and enriching the lives of high school students through workshops to inspire interest in science with real world applications.

Through Our Program Students Are Able To:

Gain hands on real world experience in the following fields:

- Reliability Engineering
- Electrical Engineering
- Mechanical Engineering
- Embedded Computing
- UAV systems
- Teamwork
- Project Management
- Computer Vision
- Machine Learning
- RF Design
- Flight Dynamics
- Flying Experience

Team Organization:

Arizona Autonomous consists of four student officers and twenty dedicated student participants from: Mechanical Engineering, Electrical and Computer Engineering, and Computer Science. Our goals for this year is to develop a fully working UAV which can support mission tasks ranging from autonomous flight to ground target search and identification.

We have split into four technical development teams: Computer Vision, Guidance Navigation and Control, Communications and RF Design, and Hardware/System Integration. Each team is led by an officer, but also directly collaborate with the other teams to ensure smooth integration and effective synergy.



Competition:

The 2017 AUVSI Student Unmanned Aerial Systems (SUAS) is a competition dedicated to promoting advancement in Unmanned Aerial Vehicles (UAVs). The international competition is hosted annually in Maryland and attracts undergraduate students from top schools around the world. Completing this challenge requires significant in-depth knowledge of UAV systems, long range communication, reliability engineering, computer vision, and many other disciplines. Our team will be developing a 92” wingspan fixed wing UAS with autonomous flight, ground target detection and identification, simulated obstacle avoidance, payload delivery, and secure communication capabilities.

Estimated 2016-17 Budget

Category		Total
Airframe	Airframe, engine, and electronics required for manual flight	\$1,500.00
Avionics	Autopilot and sensors for autonomous flight	\$500.00
Computer Vision	Imaging system, onboard computer, ground station	\$1,500.00
RF Equipment	Telemetry and imaging datalinks	\$500.00
Systems	Test platforms for systems development	\$1,000.00
Validation		
Maintenance	Budget for spare parts and repairs as necessary	\$1,000.00
Tools	Miscellaneous tools	\$1,000.00
Travel	Travel expenses for 10 team members to compete	\$7,000.00
Grand Total		\$14,000.00

Sponsorship Tiers

Platinum **\$3,000 (limited to 1 sponsor annually)**

Be our title sponsor!

Annual BBQ and Fly Day at local airfield hosted under company's name

Logo prominently displayed in title spot of team banner and t-shirt

Logo prominently displayed on tail of competition aircraft

256x256 logo displayed on team website

All benefits from previous tiers

Gold **\$1000 or equivalent value**

Outreach/community service project with your company

Direct access to our member data/resumes and contact information

Logo prominently displayed on team banner and t-shirt

Logo prominently displayed on wings of competition aircraft

192x192 logo displayed on team website

All benefits from previous tiers

Silver **\$500 or equivalent value**

Company event of choice with club members

Logo displayed on competition t-shirt

Logo displayed on fuselage of competition aircraft

128x128 logo displayed on team website

All benefits from previous tier

Bronze **\$250 or equivalent value**

Logo displayed on competition t-shirt

64x64 logo displayed on team website

Team photograph from competition for use in your publications