



Team 31 – SAE Aero Design Advanced Class

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Objective

The 2017-2018 Louisiana State University (LSU) Aero Advanced team will design and manufacture a straightforward, competitive aircraft capable of winning the 2018 SAE Aero West competition and comply with all SAE rules and regulations.

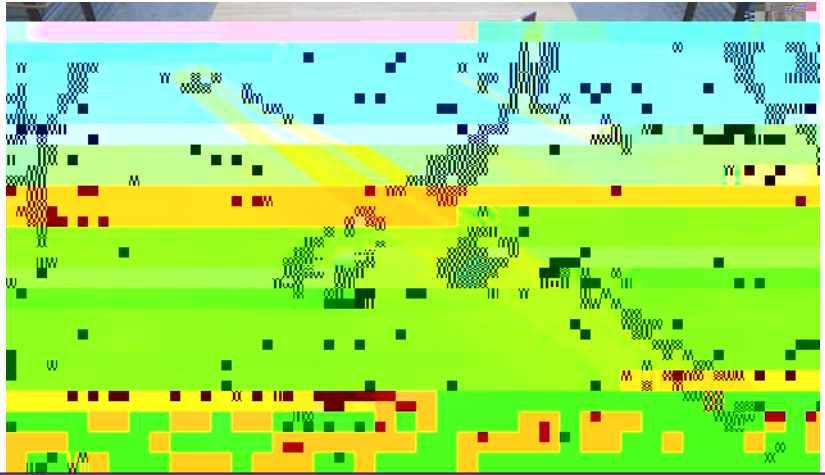
Specifications

Criteria	Required	Result
Engine Displacement	Q0.46 in ³	0.46 in ³
Gross Aircraft Weight	Q55 lbs.	35 lbs.
Static Payload	-	10.31 lbs.
Dynamic Payload	2 – 2.25 lbs. ea.	4 (8 lbs. tot.)
Wingspan	-	137 in.
Engine Thrust	-	~9 lbs.

Safety

- Proper PPE
- Compliance with FAA and AMA rules
- Propeller awareness
- Throttle kill for pilot
- Proper fire extinguishers
- LiPo bags for battery charging

Wing Configuration



SAE Aero West Competition
4th Place Overall

Design	Presentation	Flight Score	Overall
38.1044	39.74	27.48	104.3244
Humanitarian on Target			
Zone 1	Zone 2	Zone 3	Zone 4
2*	1*	2	4

* = Dropped from 98 ft., 38.6625 flight score negated

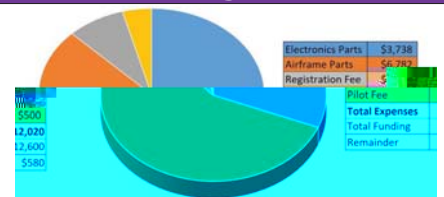
Electronics

Aircraft Iterations

Mk 1
11 flights

Mk 2
27 flights

Budget



Flight Total

38 Successful Flights
*41 Flight Attempts



Sponsors: LaSPACE, Dr. Keith Gonthier, ExxonMobil, Solidworks, FlyingFoam, Jack Rettig, LA State Police, Crystal Clear Imaging

Advisors: CAPT David Giurintano, Dr. Ram Devireddy, Dr. Morteza Naraghi-Pour, Jack Hawkins