LINMANNED SERIAL VEHICLE

FOTENTIAL DESIGNS



MQ-9 Reaper

DESIGN DESJECTIVES

- Operate in temperatures up to 110° F
- 10 hours
- Total weight no more than 55 lbs
- Must complete specified mission within 40 minutes
- Acquire a maximum airspeed of 115 mph
- 25% of body must be brightly colored for recognition in the air
- Must have proper fail-safes in order, both electrical and mechanical

DESIGN MOTIVATIONS

- Provide small portable UAV with image recognition.
- all images captured.







Capable of takeoff and landing in crosswinds of 8 knots with gusts up to 12 knots

Capable of mission completion after exposure to temperatures of 100° F up to

Provide product with minimal cost for desired applications Complete desired flight path for competition in fastest time possible with

Piper J3 Cub

PROBLEM STATEMENT

- Enter Systems

DESIGN CONSIDERATIONS

Required flight time needs to be 40 minutes Design must be able to carry ~10 lbs payload Chosen design must be able to be modified to retrofit necessary electronic components





Josh Bayliss



Design a flight-worthy unmanned aerial vehicle with ability to carry payload of onboard computer, autopilot, camera, GPS, and other sensors and components

11th Annual win and **Association for Unmanned Vehicle** International (AUVSI) **Student Unmanned Aerial Systems** (SUAS) Competition

Richard Martinez



Francisco Bolanos