

The Unmanned Aerial Systems Flight and Payload Challenge

Participant (DV8-Tech LLC.)

Project Summary

- To overcome the challenge of payload versatility and increased flight time, DV8-Tech will combine the advantages of lithium battery technology and the power density of liquid fuel into a multi-rotor platform. DV8-Tech has developed an idea to increase flight time and maximize payload capacity of current multi-rotor capabilities. DV8-Tech believes the concept to be exceptionally stable and versatile. The multi-rotor platform fills the needs of the challenge, but also increases current endurance times with the addition of a generator to recharge the batteries powering the aircraft.



Participant Summary

- DV8-Tech is a business based out of Salina, Kansas started by several individuals with years of remote systems knowledge and FAA certifications. The team's backbone consists of several graduates from one of the top ranked unmanned aerial systems programs in the country, Kansas State University, which focuses on both operations and engineering. They are also supported in the challenge by the rest of DV8-Tech. A diverse group of fellow graduates in the technology management, business, computer programming, and visual arts fields. DV8's knowledge base in all areas is focused on remote systems development, integration, and operations. All of which will contribute to our success in the challenge.

Technical Outcome

- Unmanned hybrid technology will substantially improve flight times, adding endurance to the already superior capabilities of multi-rotor technology. Payload delivery capabilities of the design will ensure the challenge goals will be met. This will impact first responder's effectiveness by providing long endurance monitoring when time is crucial in a high-stake scenarios. This increases the effectiveness of saving lives in such situations. Combining the capabilities of the system with the teams expertise, which consist of hundreds of hours of remote system design & construction, and operations, increases the possibility of success exponentially for the design.