Solar-Powered, Long-Endurance UAV for Real-time Onboard Data Processing

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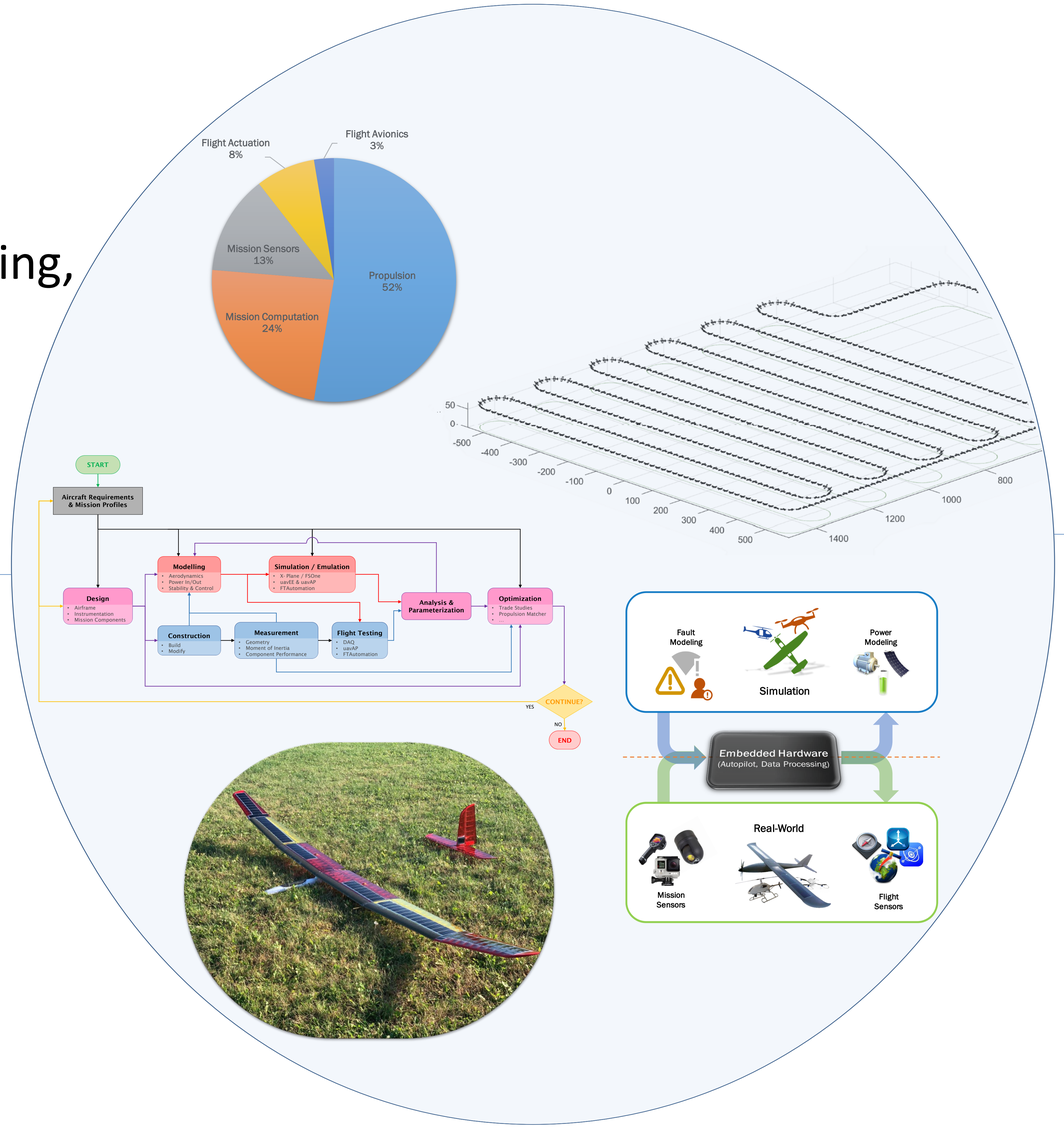
Challenge:

- UAVs are used for a variety of applications (e.g. precision farming, infrastructure inspection)
- Limited on-board energy limits UAV endurance and mission capability

Solution:

- Aircraft-wide power management for solar UAVs
- High-fidelity emulation environment
- Propulsion optimization tool



Scientific Impact:

- UAV development framework with virtual twin
- End-to-end power optimization techniques for solar UAVs

Broader Impact:

- Enabling broader use of long-endurance UAVs for computationally-intensive applications

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