High-Strain Composite Propeller

Work at MIT Lincoln Laboratory by Suhas Kodali

Motivation

- Commercial folding propellers are often clunky and interfere with an airframe when packing them
- This especially becomes a problem with small, fixed wing, deployable UAVs

Accomplishments

- Tested prototypes of initial design
- Improved Manufacturing Process
- Optimized propeller design for bending, structural stiffness, and aerodynamic performance
- Improved efficiency of propeller design from ~40% to ~95% of target