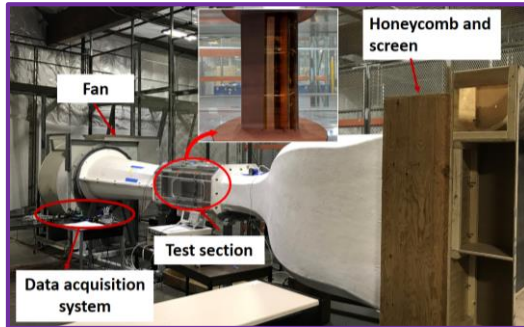
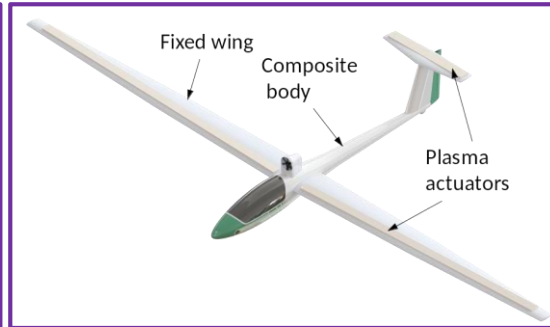


Sensors, Energy, and Automation Laboratory (SEAL)

www.uwseal.org



Subsonic Wind Tunnel Used for Testing Plasma Actuators



Concept Airplane Model with Active Flow Control System

THE PROJECT

- Goal of this project is to complete a comprehensive study of the feasibility of building a new generation of ultra-quiet aerial vehicles.
- Project results will lead to the production of an active flow control system for aircraft propulsion.
- Distributed electrohydrodynamic (EHD) actuators—which are powered by current-limited, high-voltage amplifiers—allow for the flow on a wing's boundary to be controlled.
- EHD Actuators can replace traditional flight control elements by providing active noise control, improving range and endurance, and reducing take off and landing speed length.

WHO ARE WE?

Sensors, Energy, and Automation Laboratory (SEAL) conducts research in plasma flow, avionics, energy, non-destructive testing, and medical device design, especially for national security, transportation, energy, and public health applications. The team works under the director of SEAL, **Professor Alexander Mamishev**, at UW's Department of Electrical & Computer Engineering.

HOW TO APPLY

- **Step 1:** Visit the <http://uwseal.org/> website and explore our lab.
- **Step 2:** Visit the <http://uwseal.org/apply/> page, and review the PDF materials regarding our expectations for new students.
- **Step 3:** Create a **cover letter** (using the cover letter template provided), **unofficial transcript**, and **resume** as one .pdf application.
- **Step 4:** In your cover letter, specify your desired position, reflect on your grades, and highlight relevant activities to substantiate your interest.
- **Step 5:** Submit your application!

IDEAL STUDENTS

- **Freshmen / Sophomores** who want to get into research early. Before graduation, they expect to amass expertise and win numerous awards.
- **Juniors** who are interested in technologically advanced projects to hone their project portfolio.
- **Seniors** who bring industrial experiences or other mature qualities critical to the lab.

EXPECTATIONS

- Most initial positions are for credit, with a minimum time commitment of **10-15 hours per week**.
- Eager students willing to aggressively seek out tasks and remain involved with our fast-paced lab.

FOR INFORMATION

on this project, please visit www.tinyurl.com/UW-EHD

SEEKING STUDENTS INTERESTED IN

- Aerodynamics
- Engineering Experiments
- Numerical Modeling/CFD
- Fluid Dynamics
- Technology Commercialization

TO APPLY

Please visit www.uwseal.org

