



EE402 Experimental Tiltrotor Aircraft

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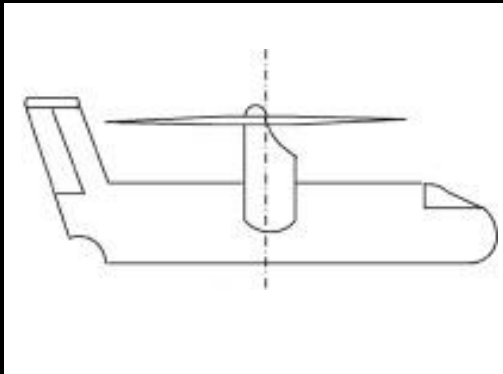
Problem Statement

Design and build of an experimental tiltrotor aircraft setup

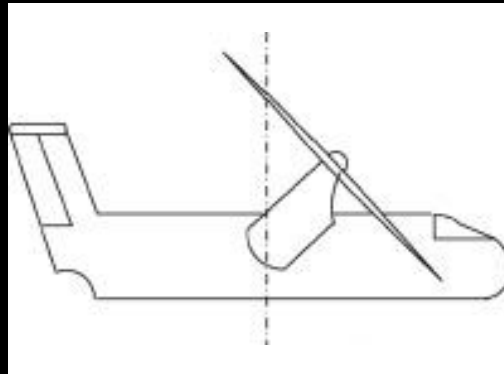


Theory Review

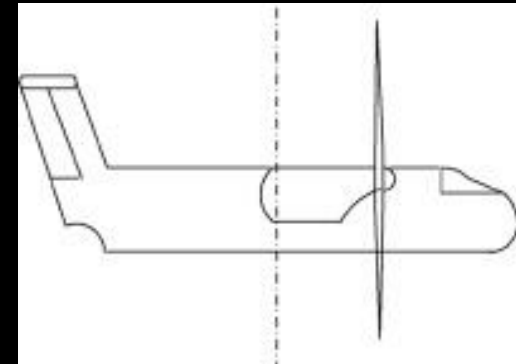
➤ Flight modes:



Helicopter Mode



Transition Mode



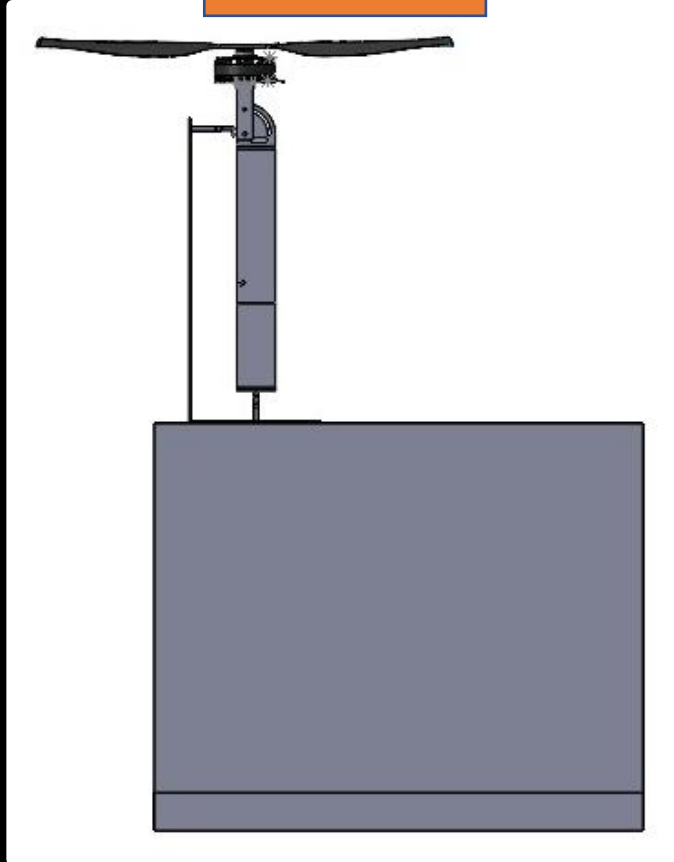
Airplane Mode

V-22 Osprey Demo

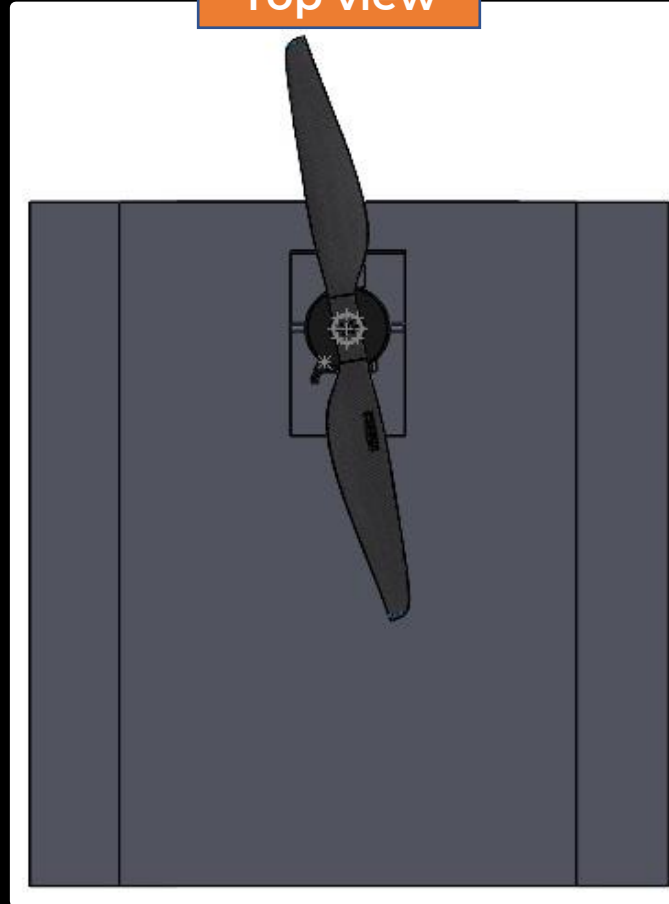
Conceptual Design

3D CAD drawings of the experimental setup:

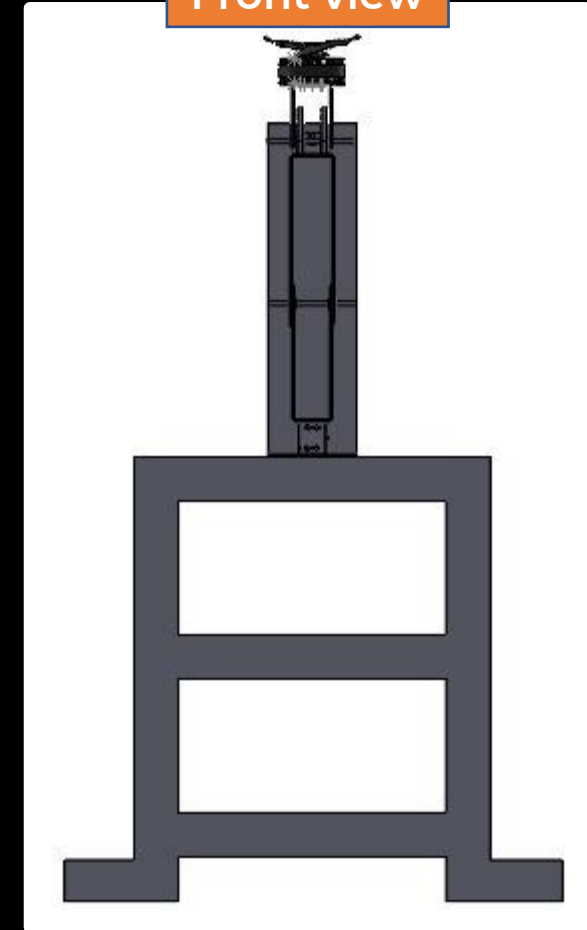
Side view



Top view

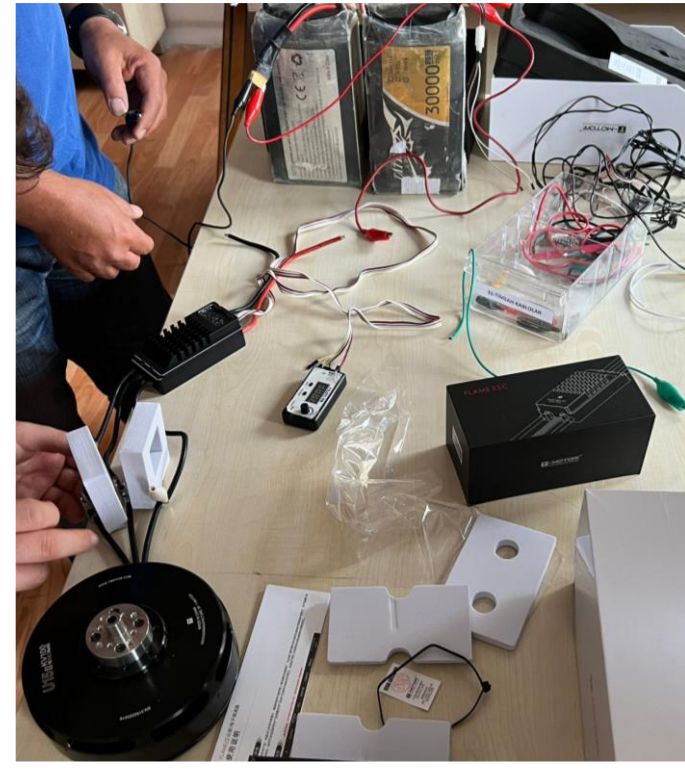
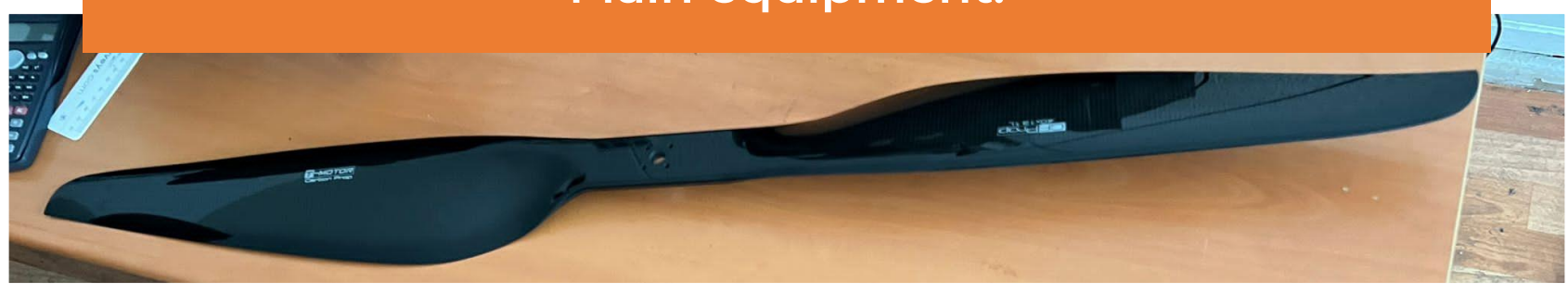


Front view



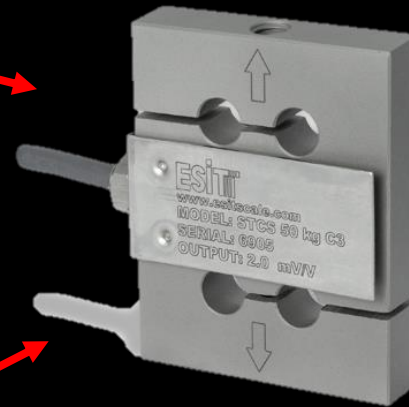
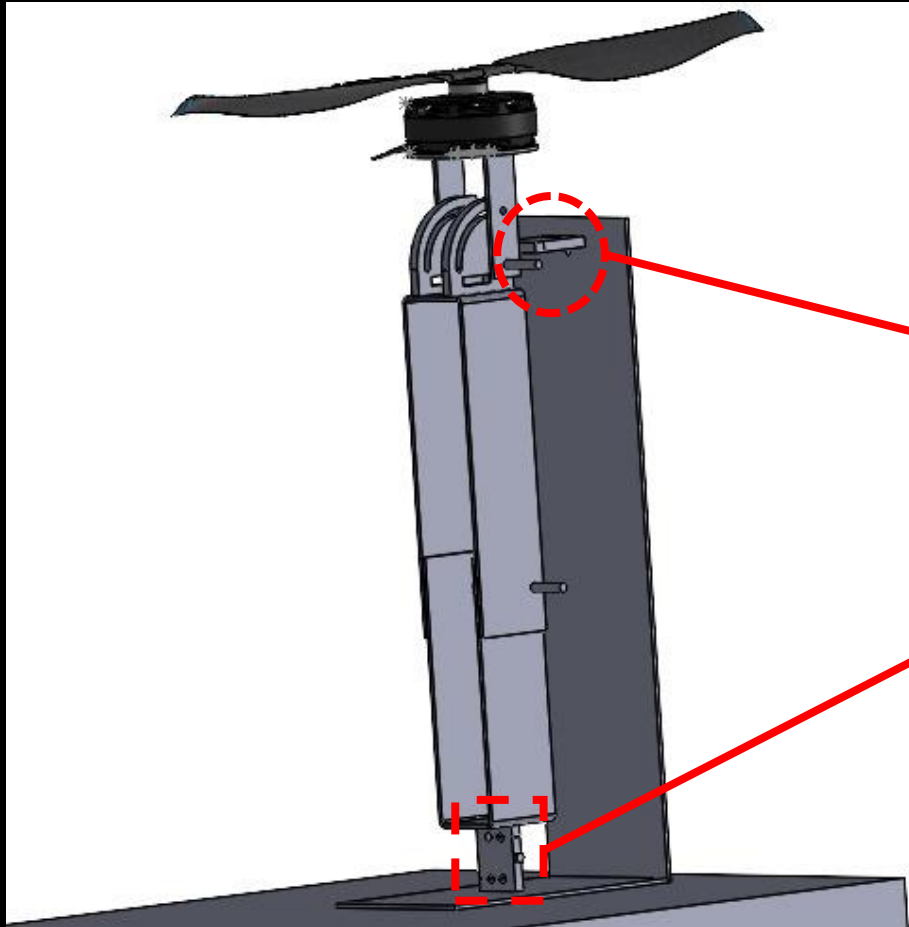
First Results (1/3)

Main equipment:



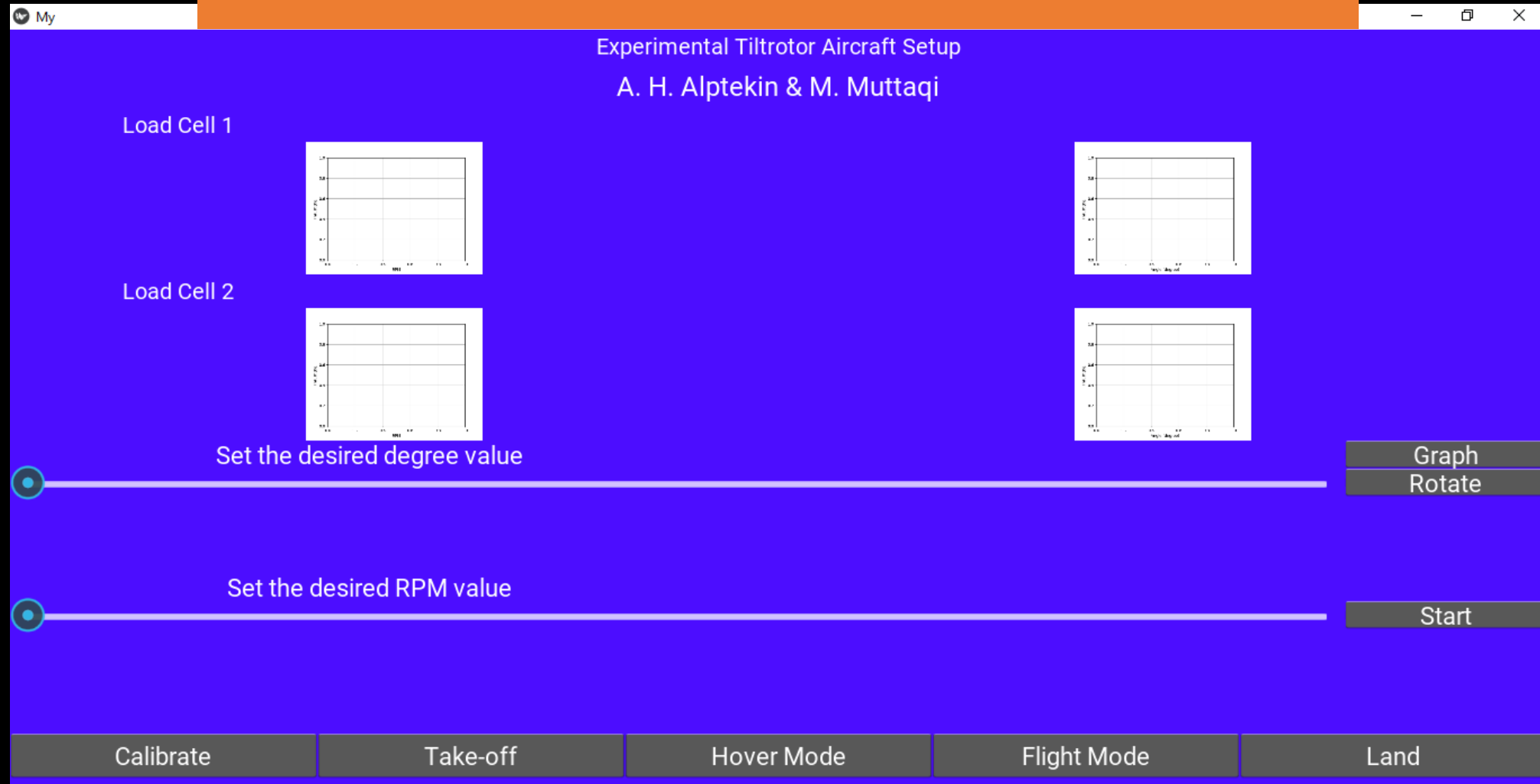
First Results (2/3)

Main equipment:



First Results (3/3)

The experimental GUI [[demo](#)]:





Thank you for your time 😊

References

- Wikipedia. "Tiltrotor". <https://en.wikipedia.org/wiki/Tiltrotor>
- AIRBOYD. "V-22 Osprey Demonstration - Farnborough Airshow".
<https://youtu.be/vglHpvckK-Jk>
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