School of Engineering
ZAV Zentrum für Aviatik
meteomatics
Your Experts in Weather Data Processing.

01/2015 - 07/2015 — Winterthur, Switzerland

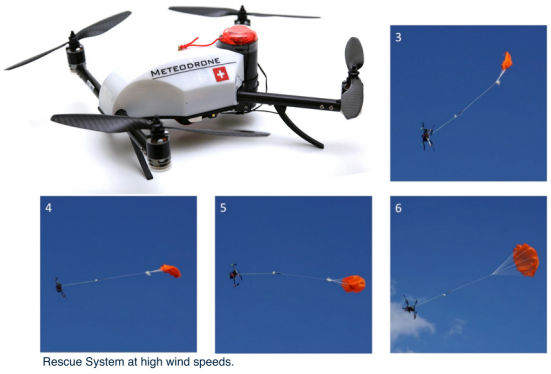
Center for Aviation (ZHAW) & Meteomatics GmbH

Bachelor Thesis

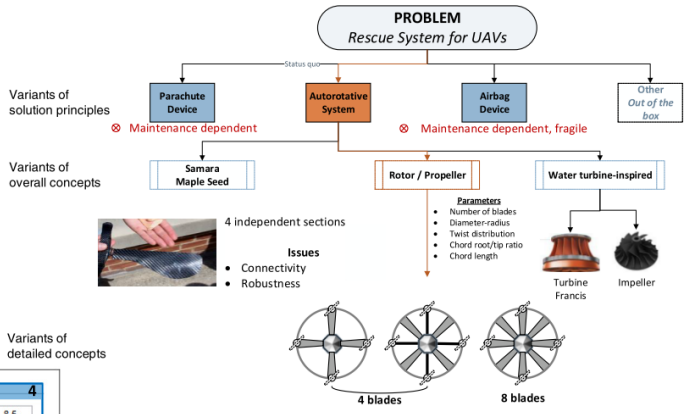
Preliminary Study on a Passive Rescue System for UAVs

GOAL	Develop a safe, robust, and maintenance-free rescue system

DUTIES	• Lead a 3 members team through a complete feasibility study project • Analyse the required geometry and performance (MATLAB-XFOIL) • Supervise prototype design (CATIA V5) and its production (3D Print) • Assess the system's behaviour with models, simulation (SIMULINK) • Perform a flight tests to demonstrate the prototype's functionality



Rescue System at high wind speeds.



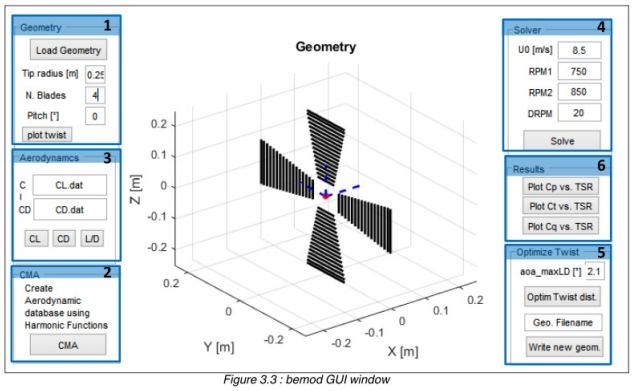


Figure 3.3 : bemod GUI window

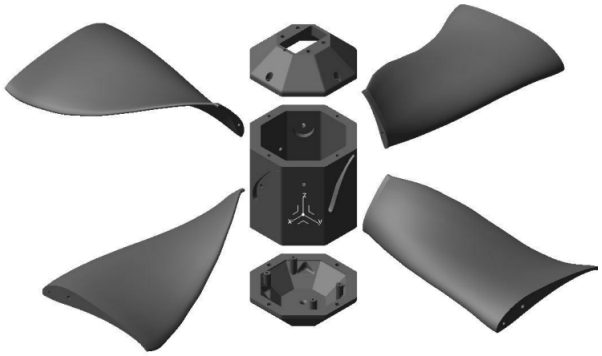


Figure 3.16: 3D exploded view of the prototype assembly

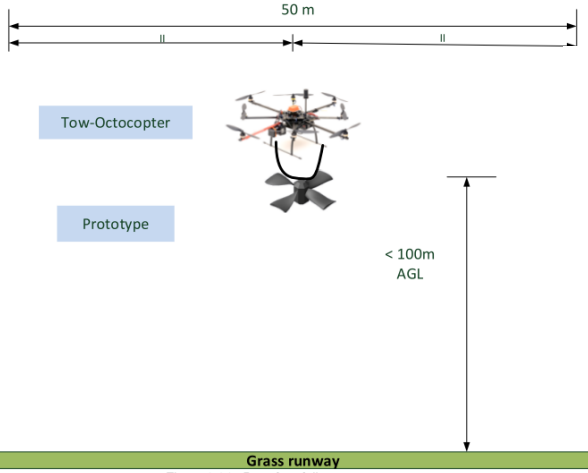


Figure 3.31 : Drop free fall test arrangement

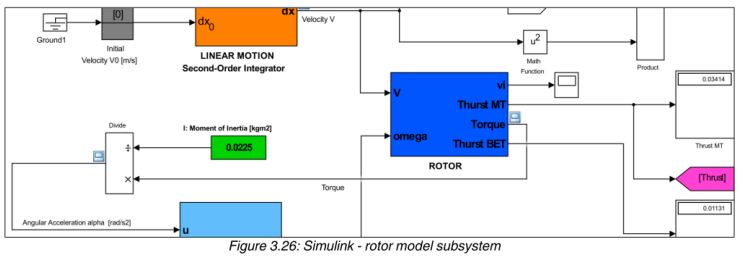


Figure 3.26: Simulink - rotor model subsystem