

Aeronautical structures (MECA0028-1)

Stand Alone Project: Acrobatic aircraft

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Academic year 2024-2025

The project

The structure of the wing of the semi-aerobatic aircraft studied during the Aircraft Structure class shall be designed. Given the provided information, a taper of 0 is to be considered. The work is individual.

Each student shall deliver a report –and a code—related to the following points.

A/ Structural loads:

Using the maneuver envelope and aerodynamic loads evaluated during the class, the structural loads at wing root shall be computed for the different envelope points.

B/ Structural design:

Using the material of the analytical analysis presented during the class, the structure of the wing shall be designed based on the results of A/.

C/ Deadline

**A printed version of the report with all the details to be handed by 23th of May 2025, 6pm.
Electronic version with relevant code to be sent by e-mail.**