Lockheed Martin

Additive Manufacturing

Introduction to Engineering Design
EDGSN 100 Section ###

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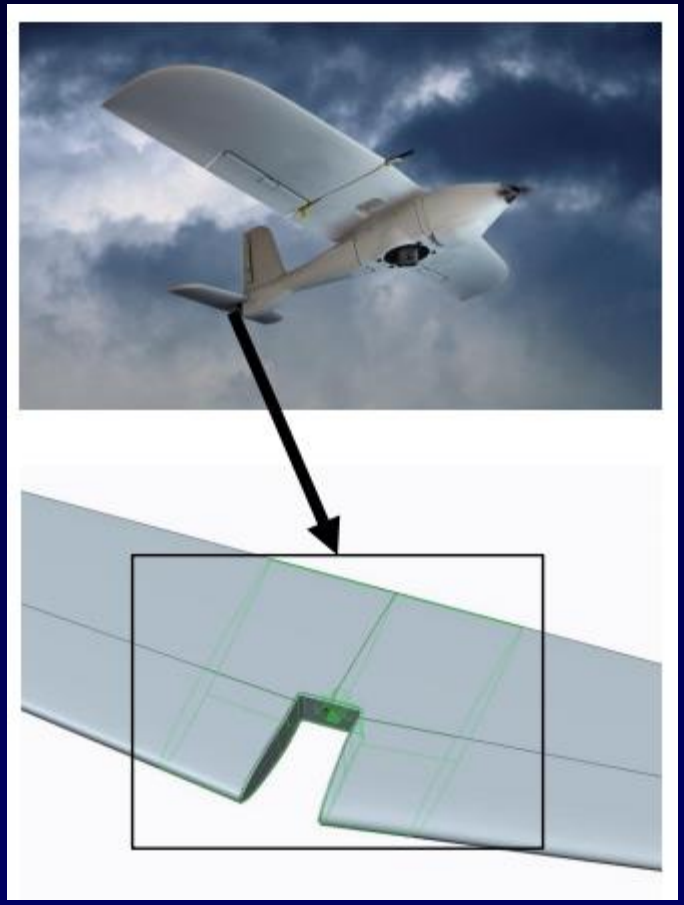
(Design Team Member #4 Name, web page link, & email)

Presented to: Prof. Berezniak
Date: 04/29/2015

Purpose

The purpose of this project is to develop an internal member to transfer and distribute the shock loads from the tail to the elevator.



Background

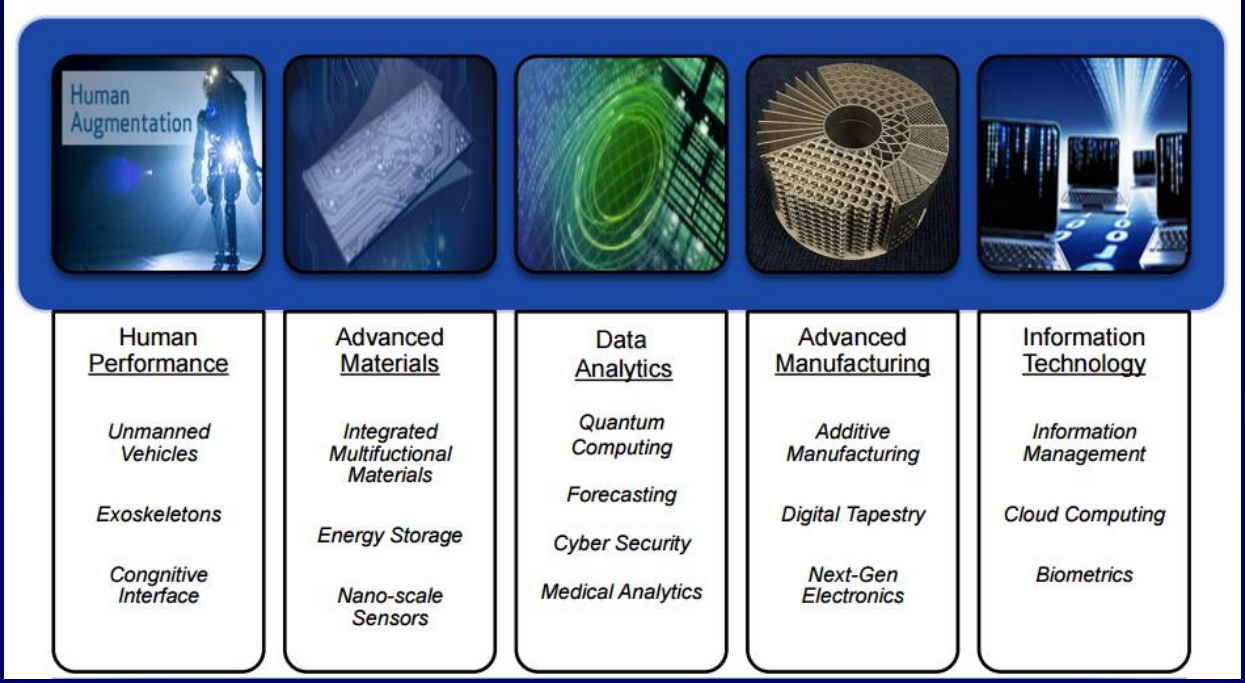
Additive Manufacturing, or industrial 3D printing, is the process of joining materials to make objects from 3D model data, usually layer upon layer.

Sponsor

Lockheed Martin is an American global aerospace, defense, security and advanced technologies company with worldwide interests.

Project Description

. Lockheed Martin provides solutions across multiple lines of business. Thus, the reason for this project is to be chosen out of the options provided.

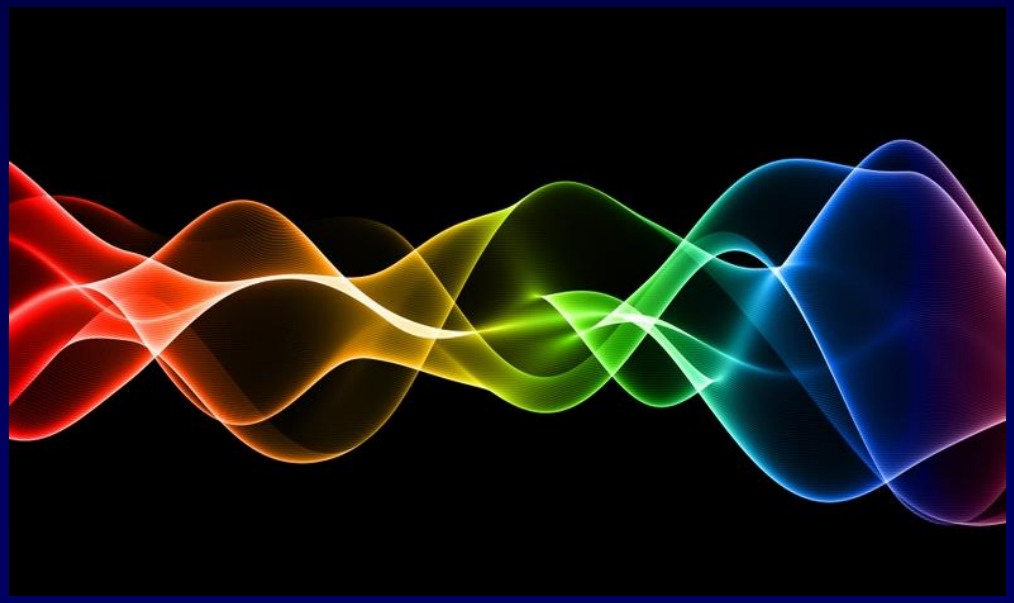


Procedures (1 of 2)

The first step in the project was to develop an internal member for the unmanned aircraft within in the parameters provided.

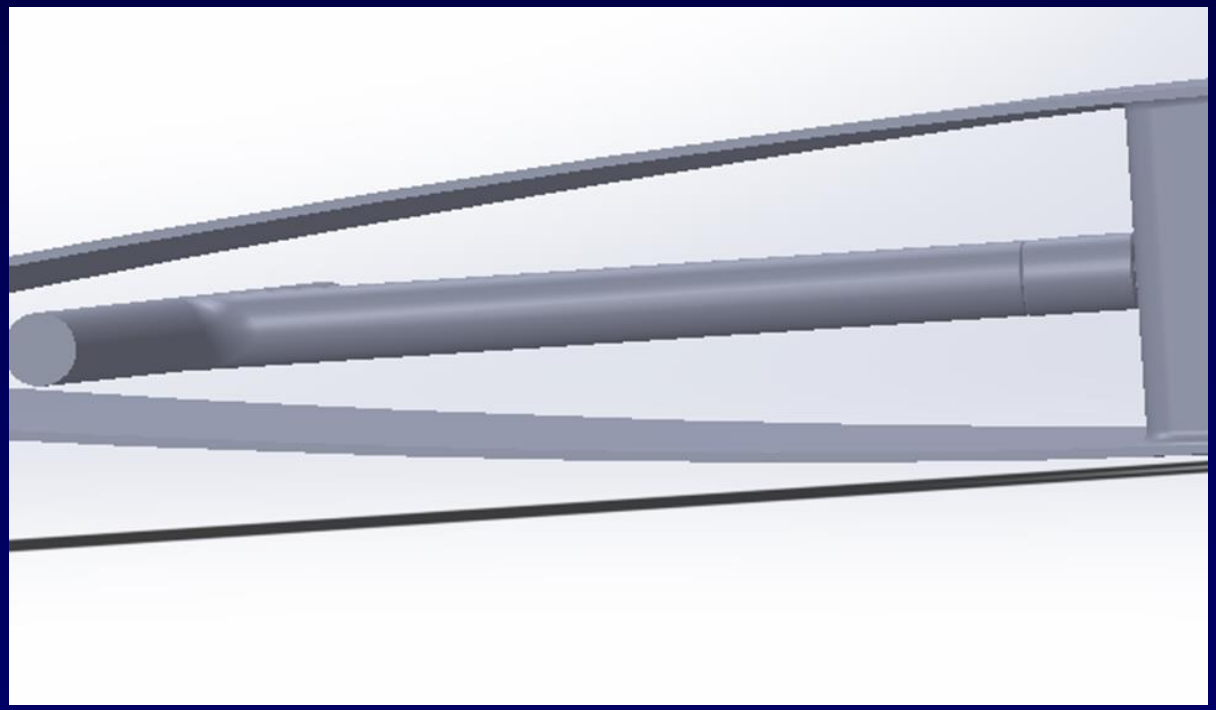
Procedures (2 of 2)

The design must prevent internal members from bending as well as disperse vibrations.



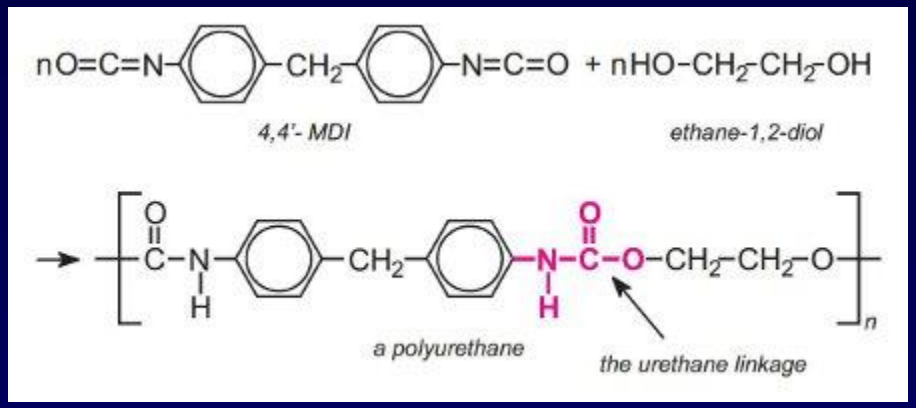
Results and Discussion

The design that satisfied both the above requirements was an internal member made of polyurethane.



Conclusions and Recommendations

The final design for the internal member was rod made up of polyurethane.



Closing

Any questions??????