

# Design for Additive Manufacturing: Comparison of Design Tools

## PROJECT DESCRIPTION

Additive manufacturing or 3D printing presents immense opportunities and design freedom for designing next generation products. Most of the products are currently designed in computer aided solid modeling tools which create solid models for production drawings as well as for simulation such as finite element simulation and motion study. This project aims to study the current generation of 3D modeling software and to analyse the suitability of each for design for products through additive manufacturing. The student will analyze popular software against a list of criteria important for engineering product design and will identify the shortcomings, strengths and opportunities for transition to design for additive manufacturing.

Requirements:

- Highly motivated and self starting individual with a passion towards computer aided design
- Excellent skills in at least one solid model modeling software
- Excellent knowledge of at least one free form 3D software such as Alias, or Maya
- Knowledge of FEA or motion study tools will be an asset
- Knowledge of GD&T will be an asset

## FACULTY-DEPARTMENT

Engineering - Mechanical

## DESIRED FIELD OF (STUDENT) STUDY

Industrial Design, Mechanical Engineering, Product Design

## INTERNSHIP LOCATION

University of Alberta Main Campus - Edmonton

## NUMBER OF INTERNSHIP POSITIONS

1

**INTERNSHIP START DATE**

July 4

**INTERNSHIP END DATE**

3 months after start date

**ARE THE DATES FLEXIBLE?**

Yes, I am flexible regarding the internship dates. Selected students can contact me to request a date change.