**Project Summary: Sheet Metal & Fabrication**

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# About the Project

Focusing on popular metal fabrication topics and techniques, this text will begin by guiding the reader through the basic concepts and theory, then progress to common tooling and technique, and conclude with the fabrication of finished projects. Many illustrations will be included to demonstrate the concepts, tools, methods, and step-by-step processes presented. A condensed shop notebook will be included with the intention that it may be printed and kept in a pocket or tool box.

The following subjects will be covered:

* Common shapes and considerations
* Common hand tools
* Common shop tools
* Bending considerations
* Flat patterns / layouts
* Bend line calculations through various methodology
* Calculation of rolled forms
* Common bend joints
* New manufacture and fabrication
* Sheet metal rework
* Safety and machinery guarding
* Shop guide

We would love assistance from other subject matter experts, including contributions to the text and help with reviewing the final draft.

# Motivators

This project is driven by the lack of OER available for the trades, as well as the desire to reduce students' costs while providing a quality text.

# Audience

The primary audience for this text is college students enrolled in manufacturing courses. However, it is written from an instructor’s point of view, so hopefully other instructors will be able to integrate the text into their courses. I also hope for it to serve as a guide and introduction to anyone with interest in the subject matter.

# Structure

The text will be structured into chapters divided by main topics. It will contain a removable appendix that can serve as a shop quick-guide.

# Licensing

Attribution Non-Commercial

# Timeline

June 2021 - begin project

November 2021 - complete first draft

December 2021 - review and edit first draft

January 2022 - publish final draft

February 2022 and beyond - text updated, improved, and loved forever

# Measures of Success

Student usage and commentary will be the primary measure of success. The author will revise based on this feedback. A secondary measure of success will be the adoption of the text by other instructors and industry professionals. A successful text is one that is frequently reviewed, widely used, and appreciated by students and instructors alike.