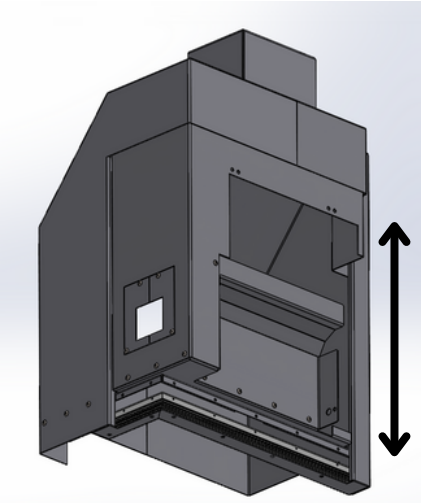
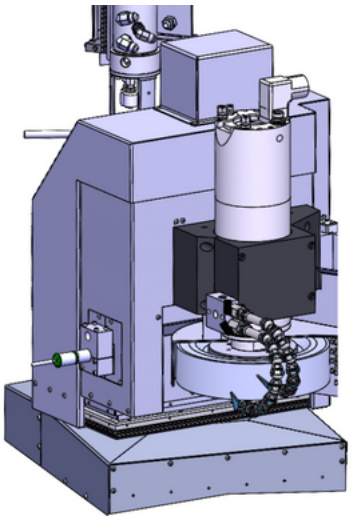
CHRISTIAN DIERKSHEIDE

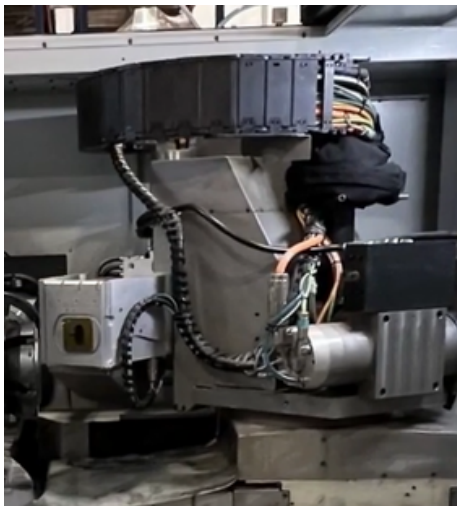
AEROSPACE ENGINEERING AT THE UNIVERSITY OF CINCINNATI

christiand416@gmail.com
www.linkedin.com/in/christian-dierksheide/
630-346-7416

W-AXIS SLIDING COVER- HARDINGE







What?

- Design a cover to **protect** axis slide and electronics from **swarf**
- Separate pieces needs to **slide up and down** with the spindle

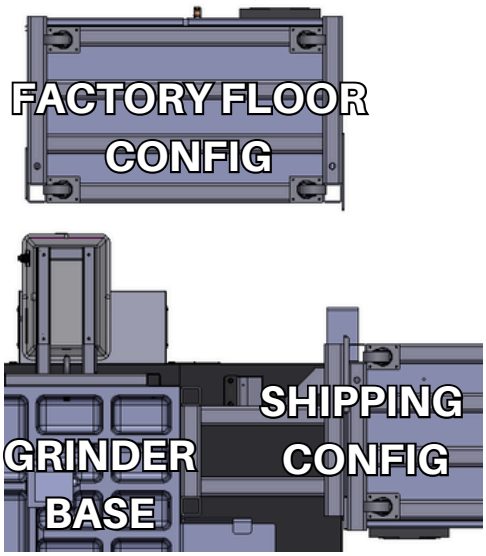
How?

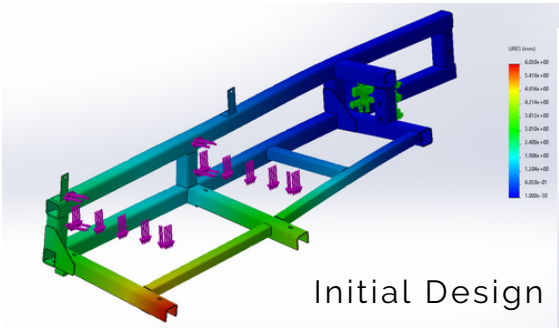
- Used **sheet metal** features in **SolidWorks** to design
- Applied **GD&T** on all drawings
- Used '**mazes**' to prevent coolant from entering seams

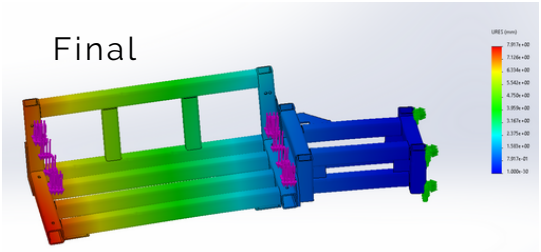
Results

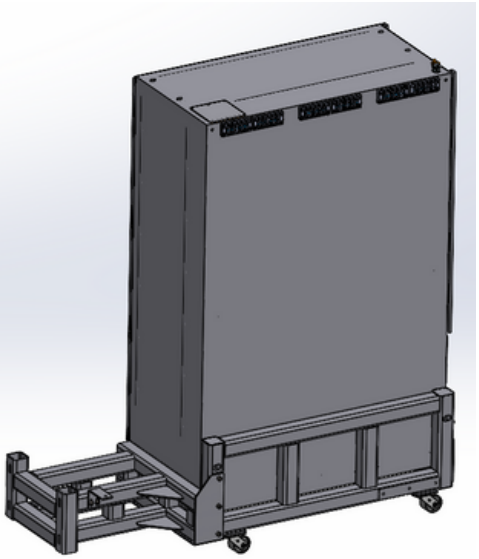
- The cover was used on the prototype machine, preventing swarf from reducing the lifetime of moving parts within
- Influenced production design

ELECTRICAL CABINET SHIPPING BRACKET - HARDINGE









What?

- Cabinet moves to side during shipping to fit with in a truck bed
- Support **2500lb 1.5'** off the side of the base with limited contact area

How?

- Designed on **SolidWorks**
- Tested with **FEA**
- 2 steel tube **weldments,** one stays with the cabinet, the other is just for shipping

Results

- Bracket allows machine to fit standard shipping container to be sent worldwide
- Developed process to **safely** move cabinet to and from each configuration