

## 3S Trailer Suspension

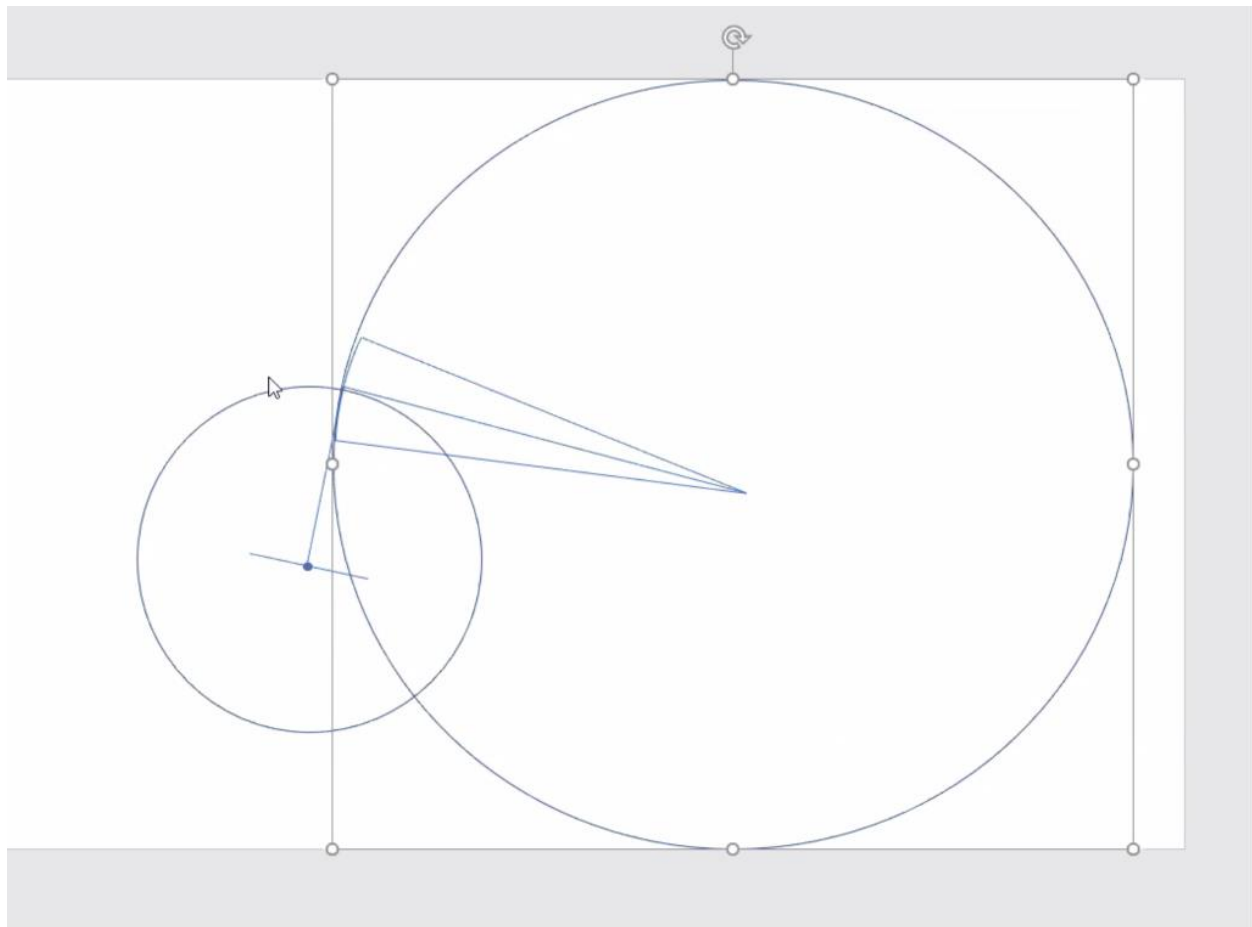
### Meeting # 21

**Start Date & Time:** Tuesday, 8/4/2020, 12:00pm

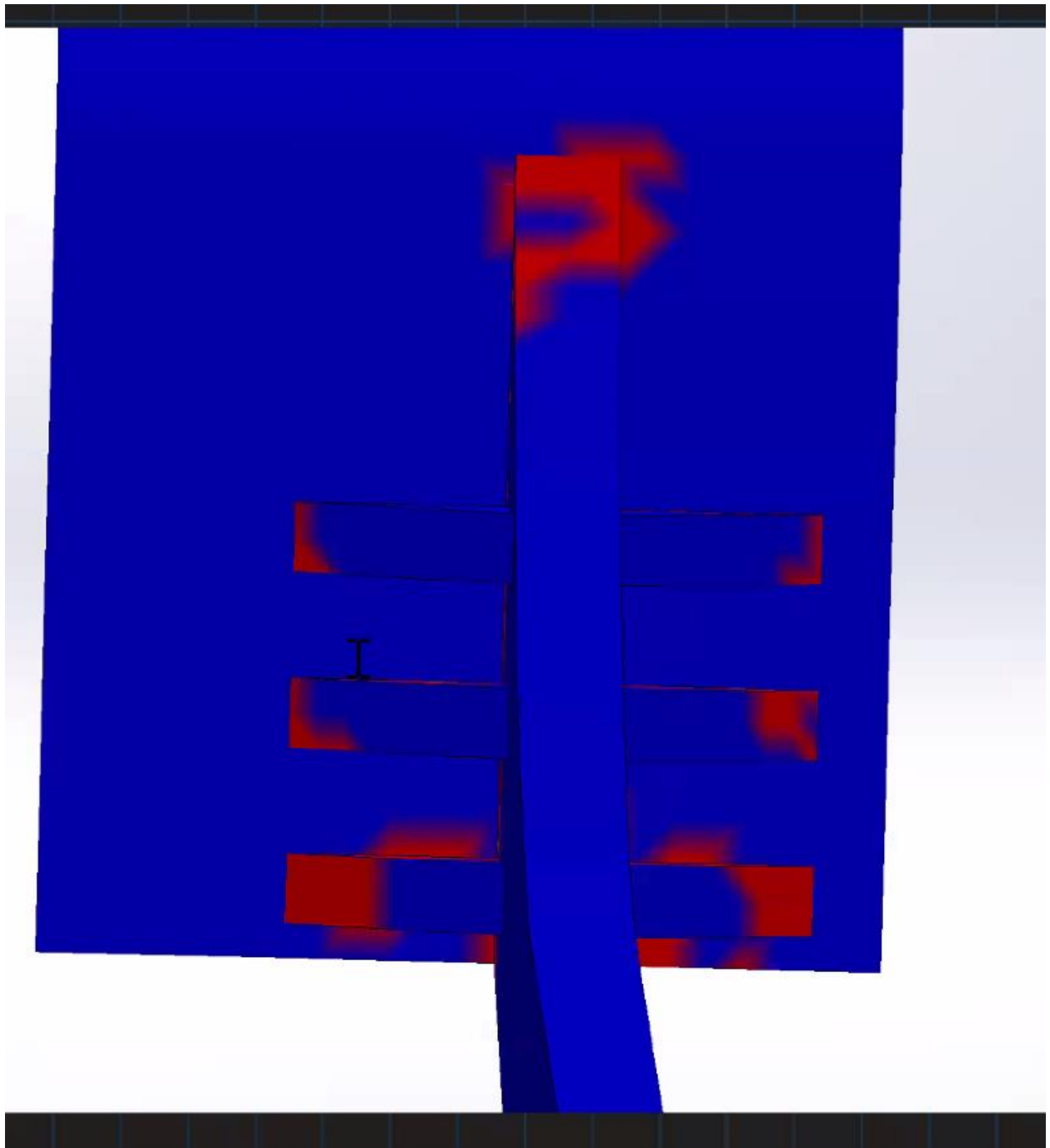
**Members Present:** Anson, Kirk, Robert, Caitlin

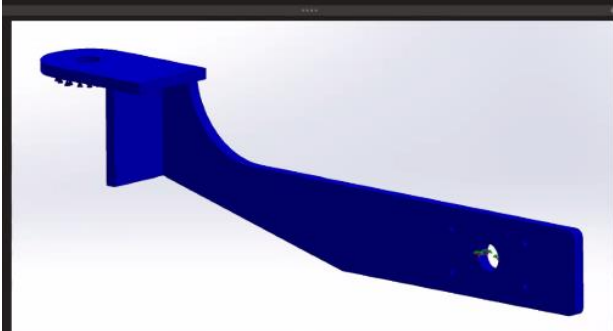
**End Time:** 12:45pm

### Last Meeting:



- Force
- Only place it is failing is

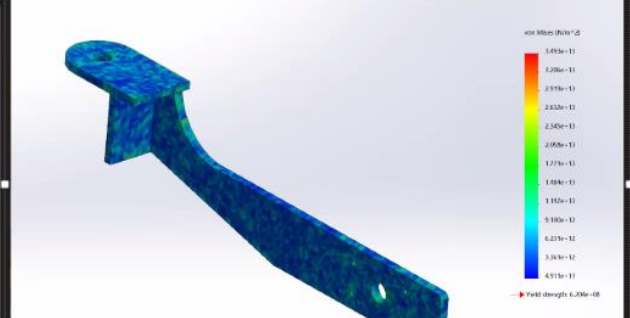


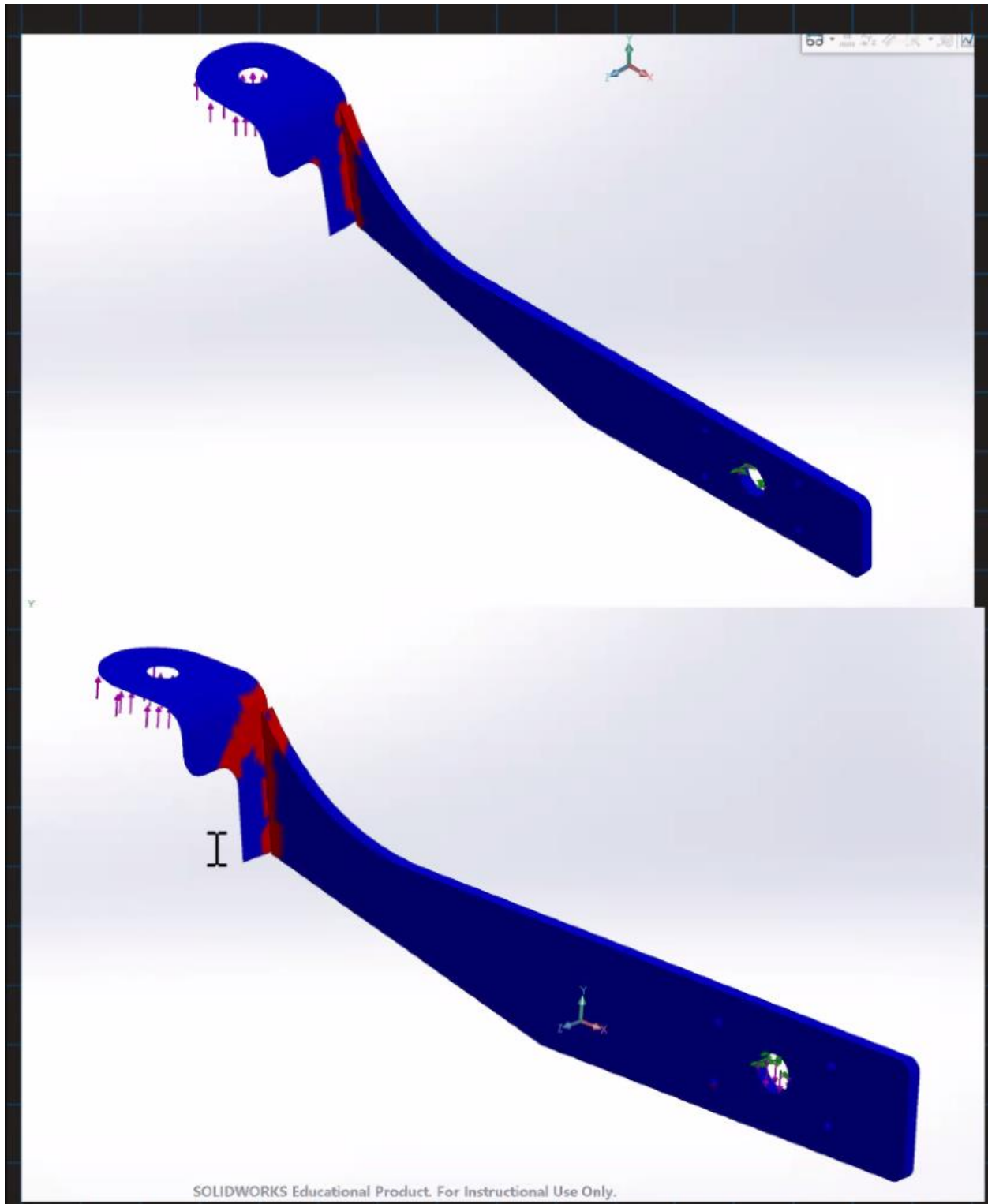


With Elastic Support @ 329 lbf/in

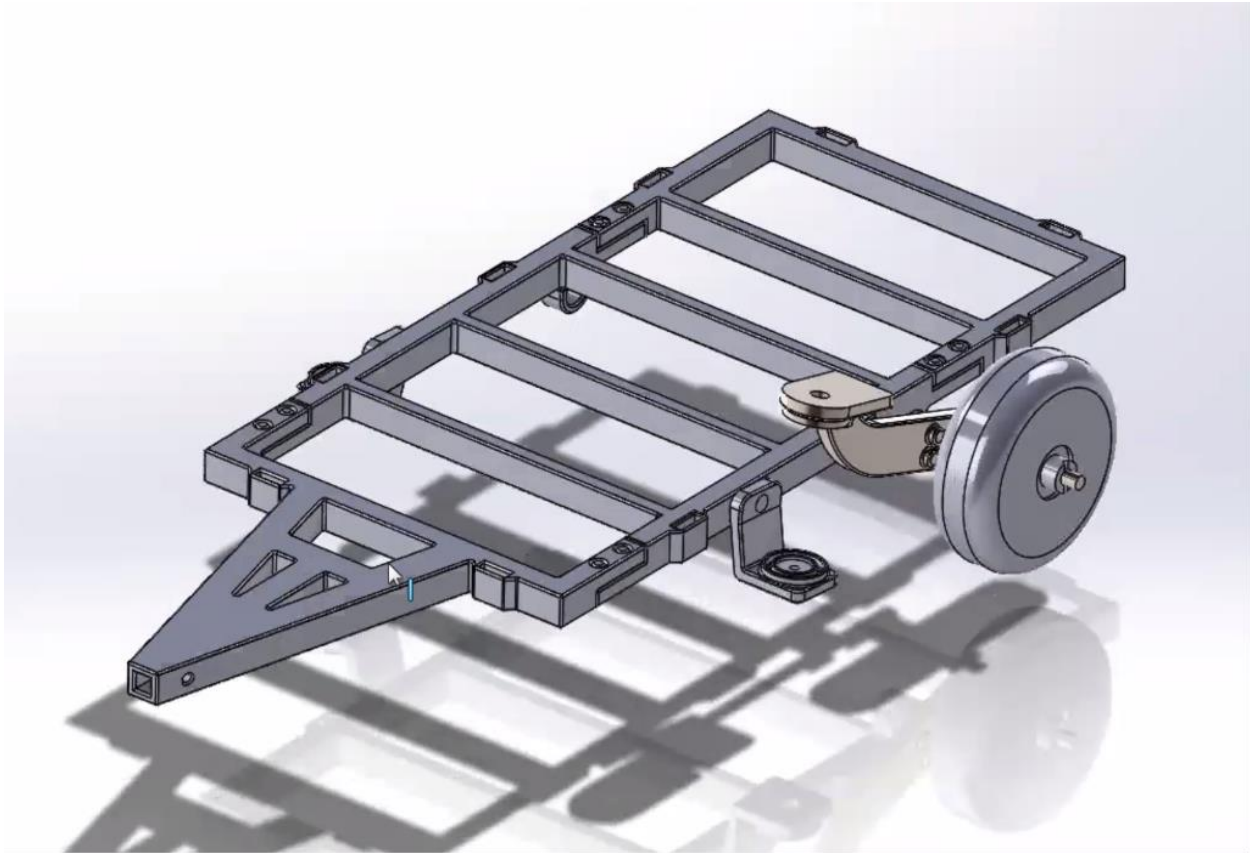


With External Force @ 1,765 lbf





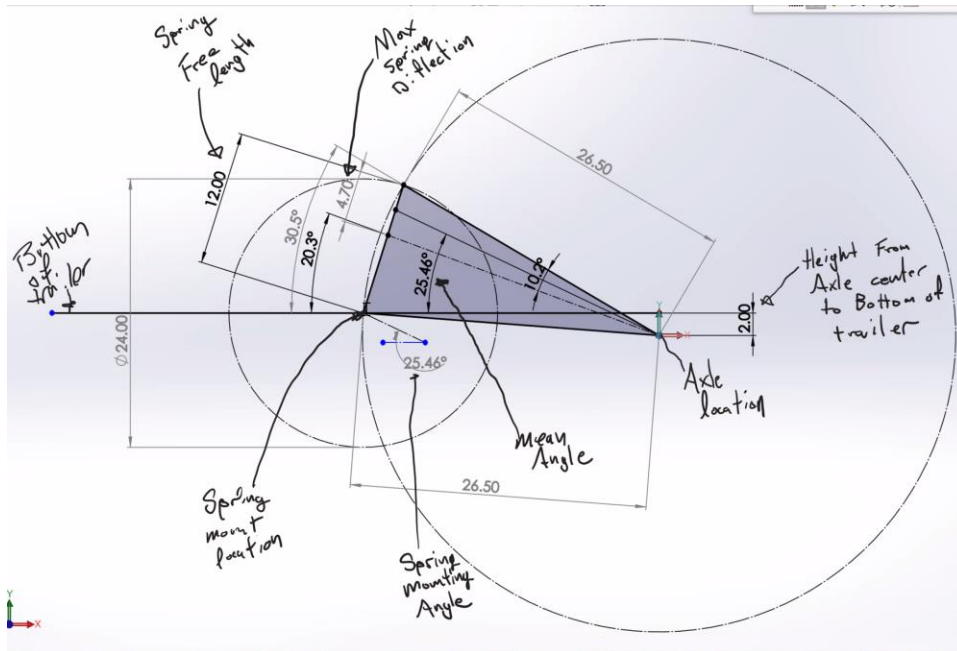
- There are buckles everywhere
- Anson is finding different places to 3D print because the ones that are available are in use currently



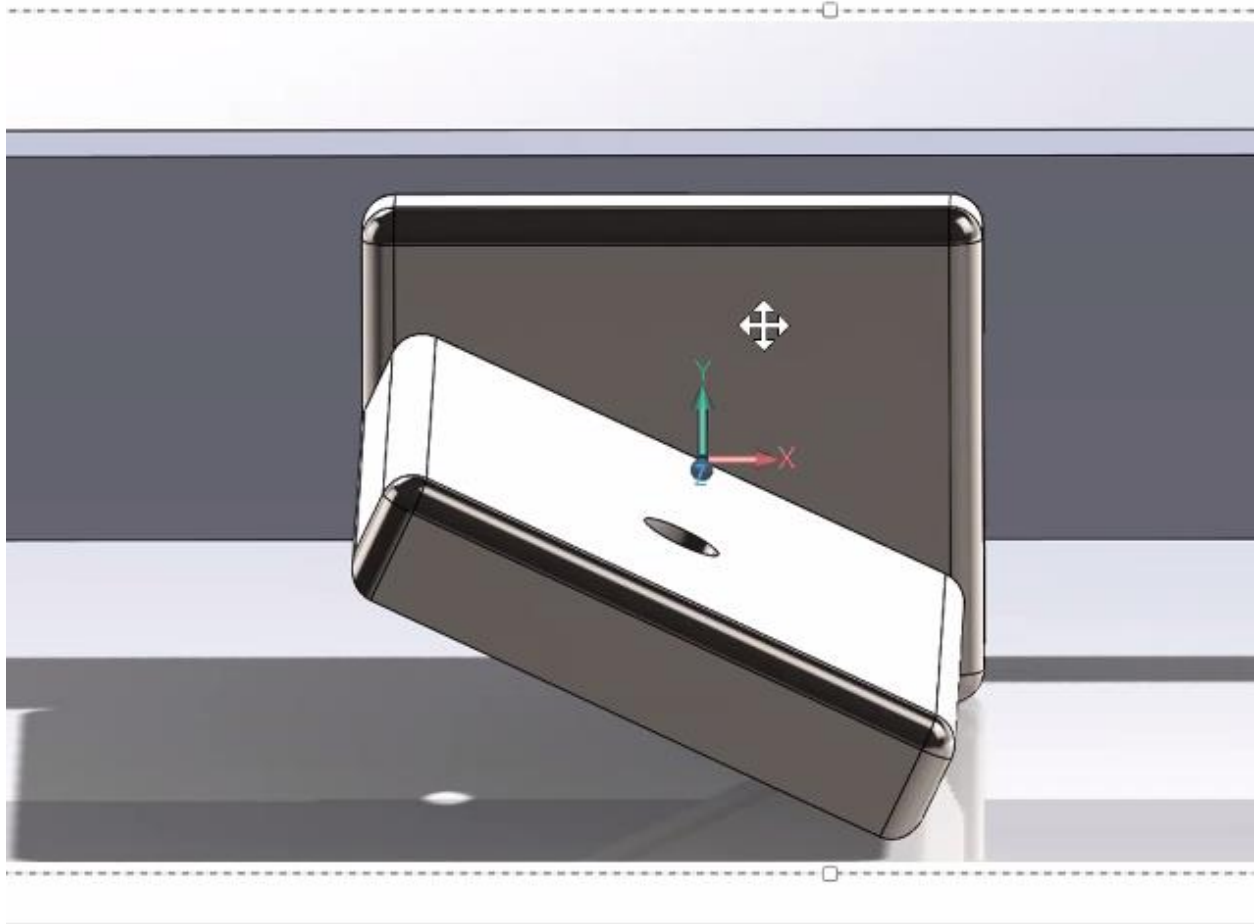
### Today's Objectives:

- Spring validation
- Angle for spring mount
- Anson show the 3D printed prototype
- Look over last minute design for rocker arms

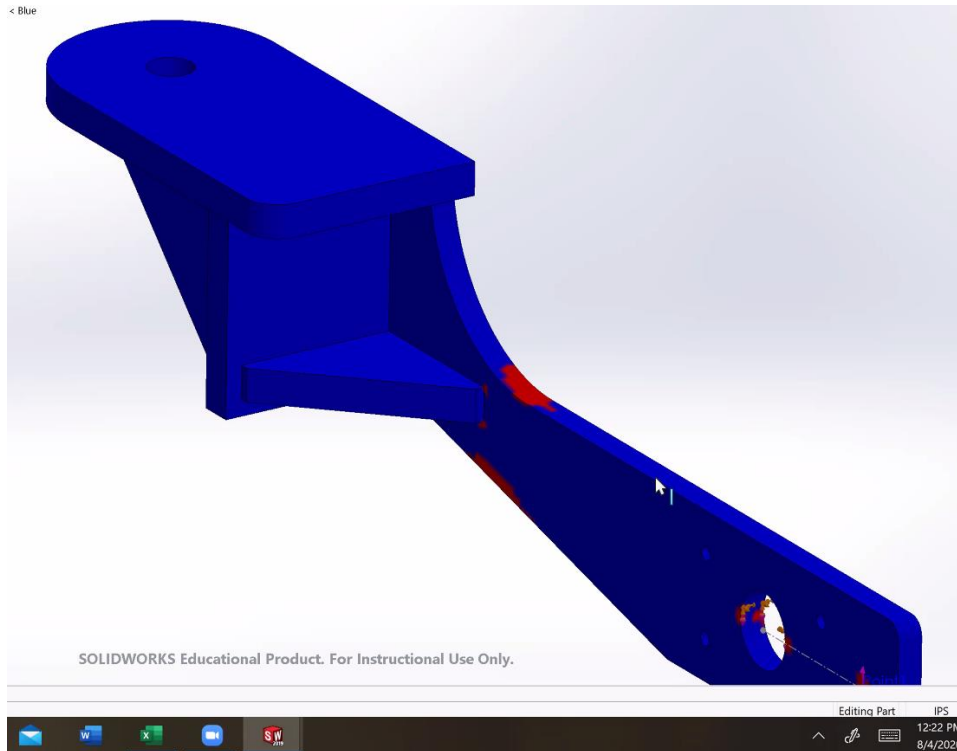
### Notes:



- Spring angle = 25.46 degrees! Officially



- We can't mount it at the top - not a lot of room for welding
- Overhang piece where it is angled - is this going to be a problem?
- The plates will be 1 inch thick with 1/4 in fillets on every corner
- Swenson wants us to try to do thinner plates - 1" looks too thick
- Are we still going to laser the plywood? - Yes!
- Anson is going to do that tomorrow
- The 3D printing is almost done!
- Is it wimpy and do I have to be careful with it? - Swenson
- It will be stiff, but it Also depends on what you want to use it for
- Rob got correct ratios - and sized all the holes for 6000lbs



- This is with a factor of safety of 4
- From here he can scale down and make sure everything still works
- We have space for all our weldments
- Set up different folders for different sized trailers in OneDrive
- Drawings are "due" today
- Drawings due tonight to Swenson - drawing package

#### For Next Time:

- Drawings due to Swenson by today
- Kirk finish up spring mounting bracket
- Caitlin work on presentation/portfolio

#### Comments/Concerns/Reflections from Today:

- Some parts in the 3D prototype are a little weak but that is being adjusted

Next Meeting Time & Date: **Wednesday, 8/05/2020**