



University
of Idaho



IDAHO
CSC



CSC REAR DRIVE


TEAM SKIDADDLE :


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VALUE PROPOSITION

- Traditional Snowmobile powertrains are robust and packaging convenient, but not the most efficient
 - Flexible elements, like the track which drives the snowmobile, would prefer pulling system (Rear Driving) rather than the traditional pushing system (Forward Drive)
- U of I has participated in SAE CSC since 2001 with the tradition of bringing innovative solutions
- We seek to develop a rear drive system that is sufficient for CSC and for developing test data





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TRADITIONAL SKID

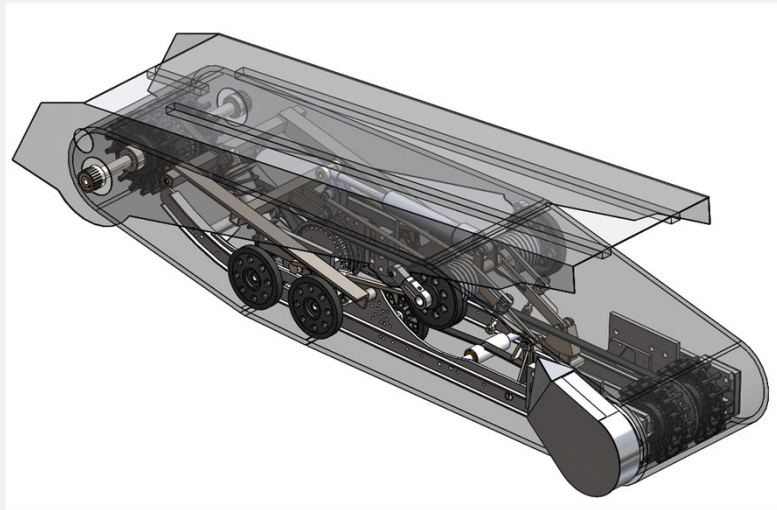


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NEXT GEN SKID

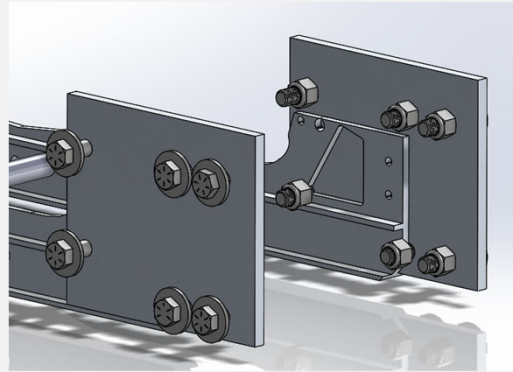
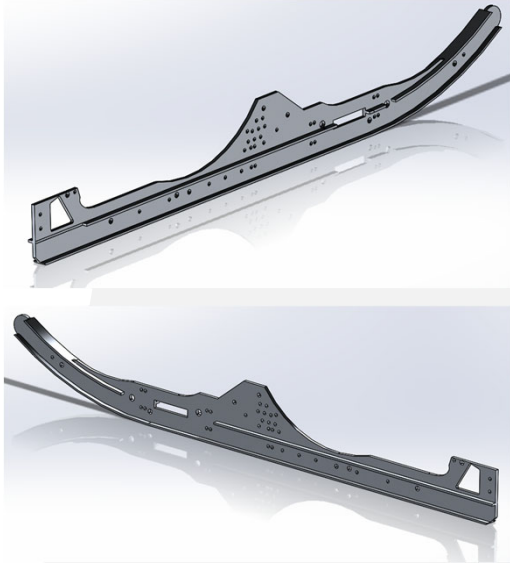


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RUNNERS/MOUNTS

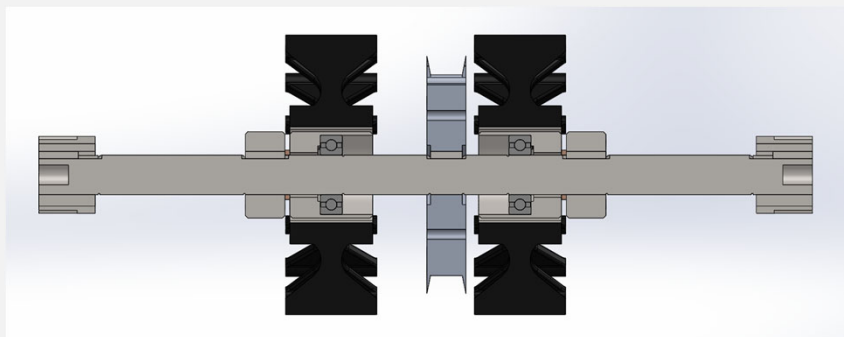
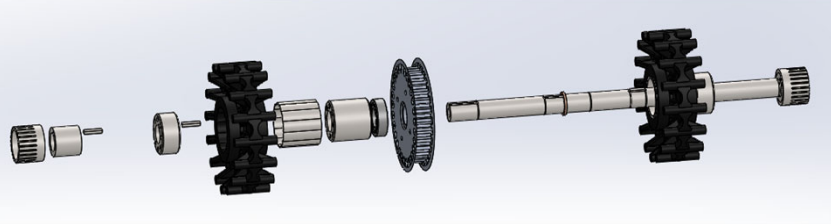


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FORWARD AXLE

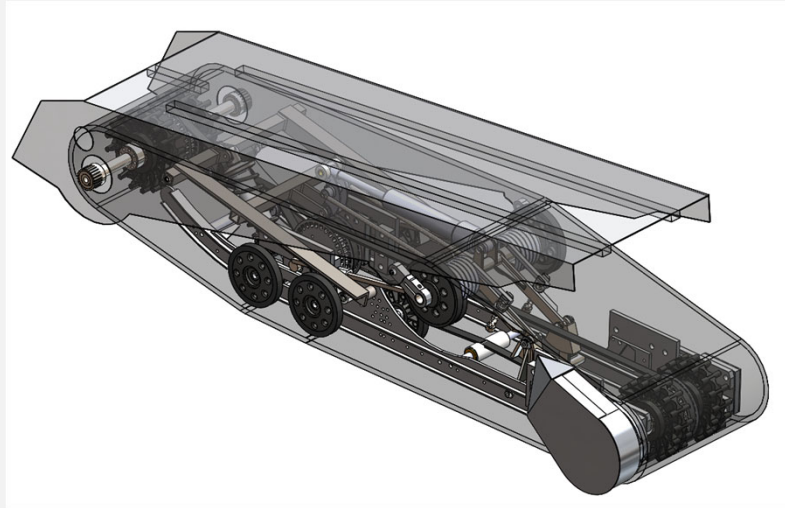


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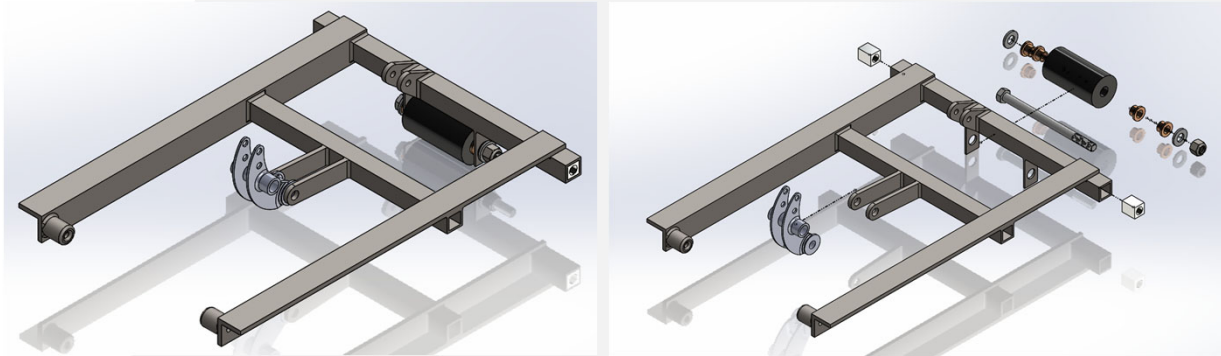
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FULL ASSEMBLY

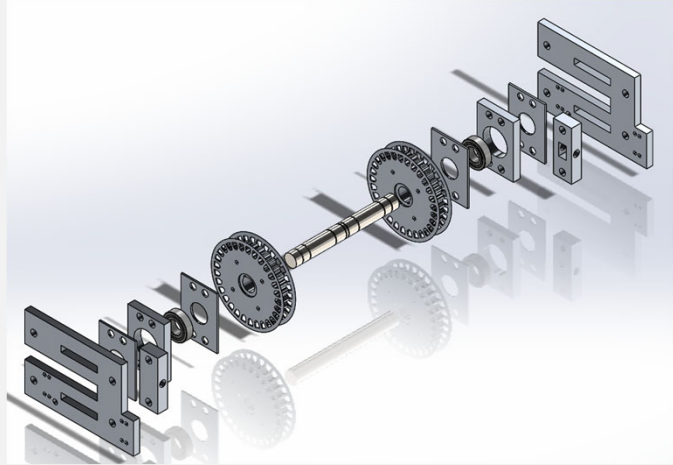
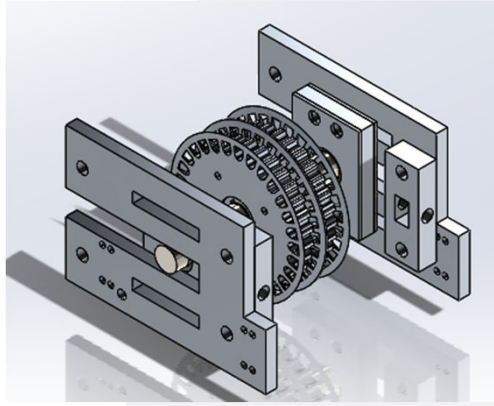


FORWARD SUSPENSION

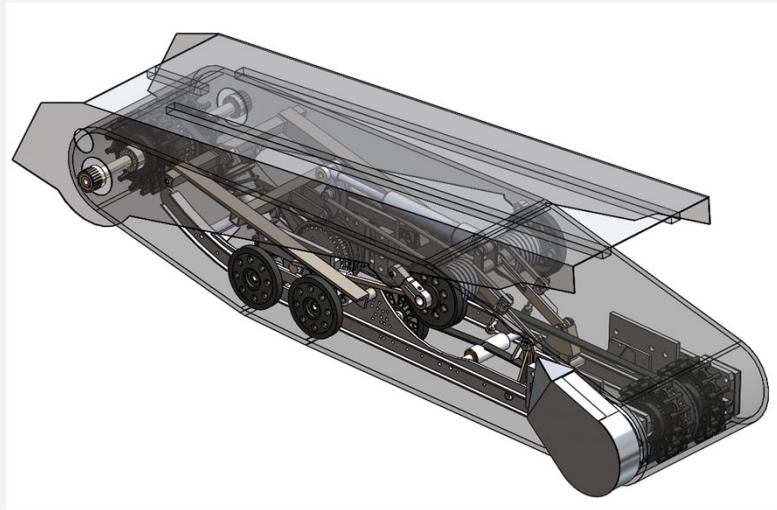




INTERMEDIATE AXLE

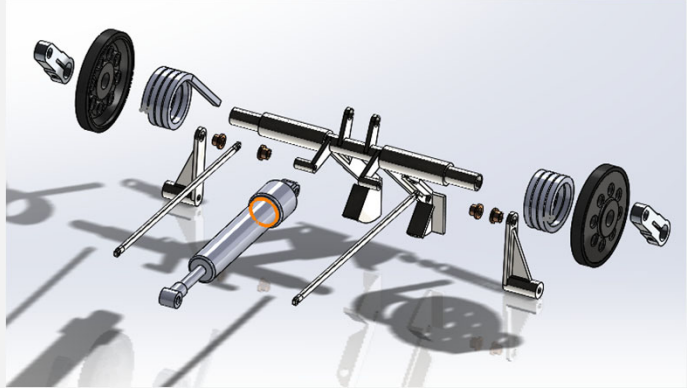
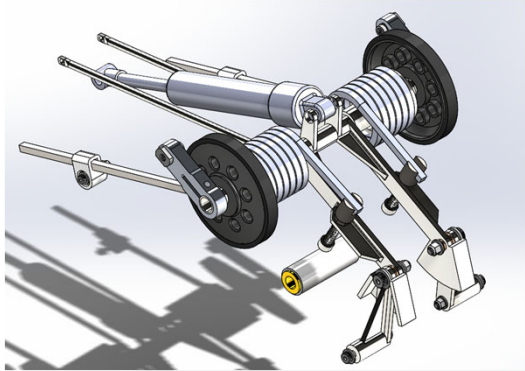


FULL ASSEMBLY





REAR SUSPENSION

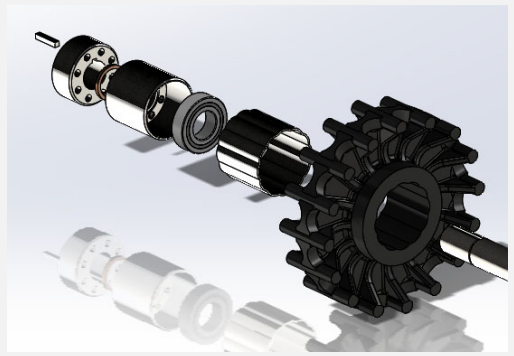
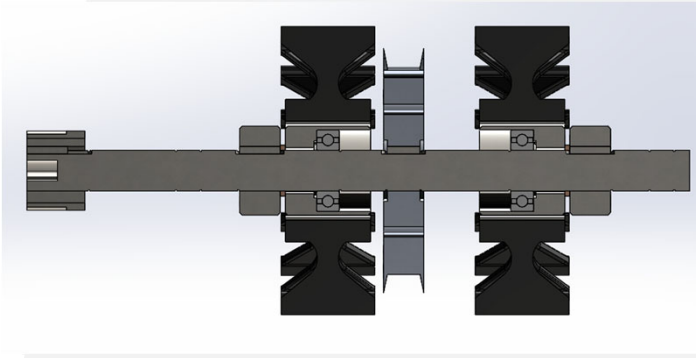
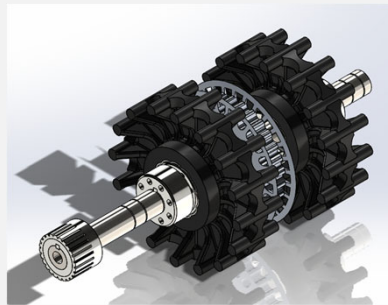
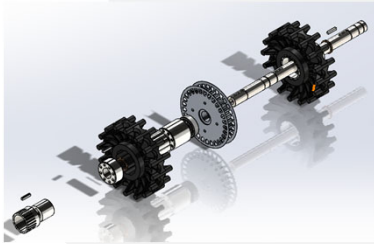


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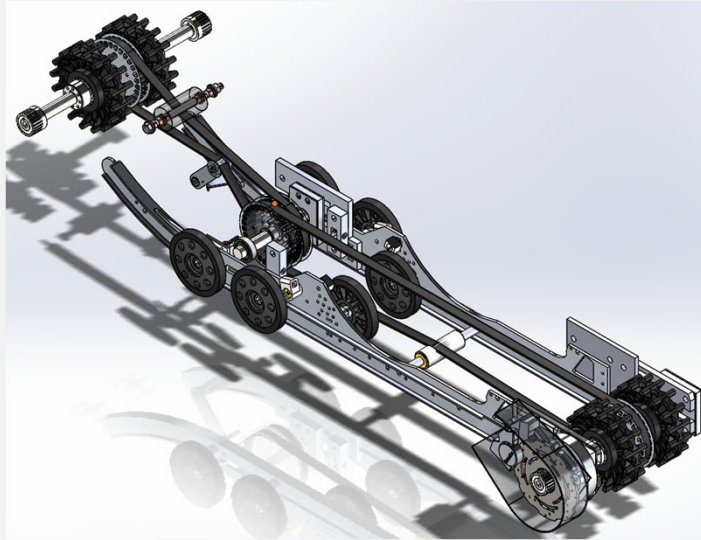


REAR AXLE



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POWERTRAIN/BELTS



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MAJOR MILESTONES



- Stock Runners and Silent Drivers retrieved from Valley Power Sports
- Water jet components received from supplier
- Axles' Hubs, Dogs, Keys Manufactured
- Mount and Weld Plates and Bearing Housings in progress



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BUDGET

Total Funding

- ME Department \$1000
- U&I Give Fundraiser \$2000
- Robert E. McNair Grant \$750

Total Budget \$3750

Costs

- Belts - \$780
- Valley Power Sports \$1214
- Plate Aluminum \$654
- Steel \$157
- Misc Hardware \$470

Total Cost \$3275



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FUTURE WORK

Spring Semester

- Complete Manufacturing & Assembly
- Design Validation & Testing
- 2020 SAE Competition

Beyond 2020

- Materials exploration for lighter skid
- Snow guard for belt cogs
- Active Belt Tensioning



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QUESTIONS?

