

HR 2 BREAKDOWN

TEAM: 21Spr06 – ASME HPVC

Due Date:

Friday, November 5, 2021 at 11:59pm

Figures 1-5 below depict the progress that has been made between hardware review 1 and hardware review 2. Some big takeaways are a rolling design with turning capabilities, completed seat design, and completed CAD model of the final design.



Figure 1 – Ackerman Steering CAD model

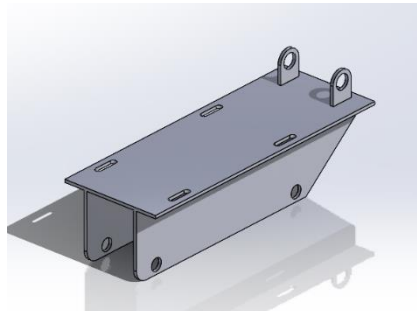


Figure 2 – Seat Bracket CAD model

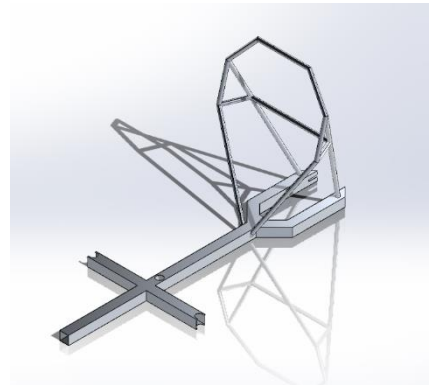


Figure 3 – Frame & roll cage CAD model



Figure 4 – Final Design CAD model





Figure 5 – Current state of design

The following are the Action Items each person completed between Hardware Review 1 and Hardware Review 2:

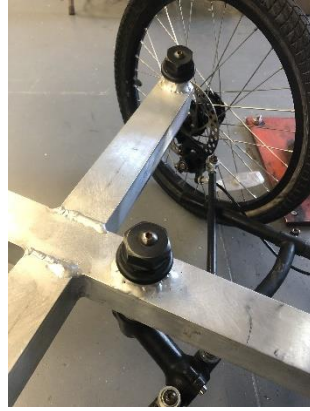
Team Member: Abel Aldape

Table 1 - Abel's Action Items

Action Item	Date Completed	Result/Proof of Completion
Cut supports out for roll cage	10/20/21	
Cut and bored out head tubes for spindles	10/20/21	
Updated CAD for frame and assembly	10/27/21	See Figure 3

Machined seat bracket

10/31/21





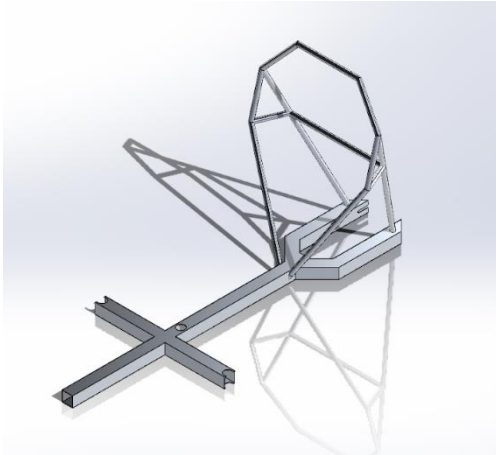
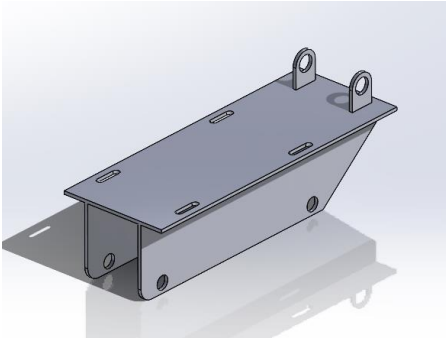

Team Member: Preston Berchtold

Table 2 - Preston's Action Items

Action Item	Date Completed	Result/Proof of Completion
Purchase Orders #2-5	10/1/21-11/3/21	Purchase order 2-5 were delivered. Products made from purchases: seat, speedometer, New handles, New linkage, etc.
Created Drivetrain CAD Model	11/2/2021	 A 3D CAD model of a drivetrain assembly, showing a chain drive system with a motor, gears, and a sprocket, rendered in a light blue and grey color scheme against a white background.
Construction of Seat	10/29/2021	 A photograph of a dark blue, rectangular seat cushion with a ribbed texture, lying flat on a light-colored wooden surface.



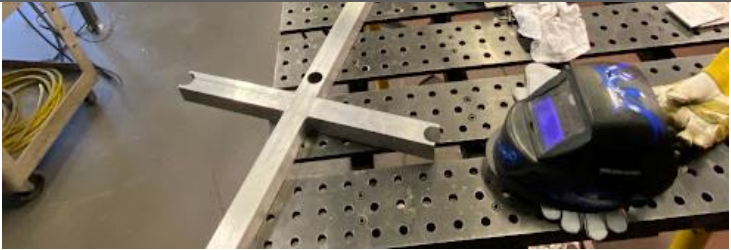
Team Member: Martín Dorantes

Table 3 - Martin's Action Items

Action Item	Date Completed	Result/Proof of Completion
Code for Arduino speedometer	10/27/21	<div style="display: flex; justify-content: space-around;">   </div> <div style="display: flex; justify-content: space-around;"> <p data-bbox="740 594 1045 657">Figure M1 – Speedometer proof of concept</p> <p data-bbox="1092 604 1417 667">Figure M2 – Speed warning proof of concept</p> </div>
SolidWorks CAD model of frame	10/15/21	 <p data-bbox="813 1140 1336 1171">Figure M3 – SolidWorks CAD model of frame</p>
SolidWorks CAD model of seat bracket	10/10/21	 <p data-bbox="857 1528 1287 1556">Figure M4 – Seat bracket CAD model</p>
Construction of seat	10/29/21	 <p data-bbox="927 1890 1218 1921">Figure M5 – Bottom seat</p>

Team Member: Trent Todd

Table 4 - Trent's Action Items

Action Item	Date Completed	Result/Proof of Completion
Cut material/ notch	10/22	
Welding	In progress	
Machine forks	10/22	

Design headtubes, calculate
press fit, weld in at correct
camber angle

10/20



The following are the Action Items for each team member between HR 2 and the Final Product presentation:

Table 5 - Team's Remaining Action Items

Team Member	Action Items	Date Due
Abel Aldape	<ol style="list-style-type: none"> 1. Finish cutting out remaining supports for roll cage 2. Cut out tubing for crank set 3. Continue scheduling weekly tasks to ensure a completed project 4. Create template for Final Presentation 	<ol style="list-style-type: none"> 1. 11/12/21 2. 11/12/21 3. Continuous 4. 11/15/21
Preston Berchtold	<ol style="list-style-type: none"> 1. Drivetrain Assembly 2. Testing 3. Final Poster (Draft) 4. Operation and Assembly Manual 5. Final Report 	<ol style="list-style-type: none"> 1. 11/15/21 2. 11/17/21 3. 12/8/21 (11/12/21) 4. 12/8/21 5. 12/8/21
Martin Dorantes	<ol style="list-style-type: none"> 1. Finish troubleshooting Python code for speedometer & LED display. 2. Complete implementation method for display attachment. 3. Begin managing testing procedures. 4. Upload final website link (everything updated). 5. Help work on CAD package for final review. 6. Paint final device. 	<ol style="list-style-type: none"> 1. 11/15/21 2. 11/15/21 3. 11/17/21 4. 12/7/21 5. 12/7/21 6. 11/12/21
Trent Todd	<ol style="list-style-type: none"> 1. Finish cutting roll cage members 2. Finish welding cage 3. Weld seat bracket 4. Implement drive train 5. Finalize steering 	<ol style="list-style-type: none"> 6. 11/8/21 7. 11/8/21 8. 11/8/21 9. 11/19/21 10. 11/19/21