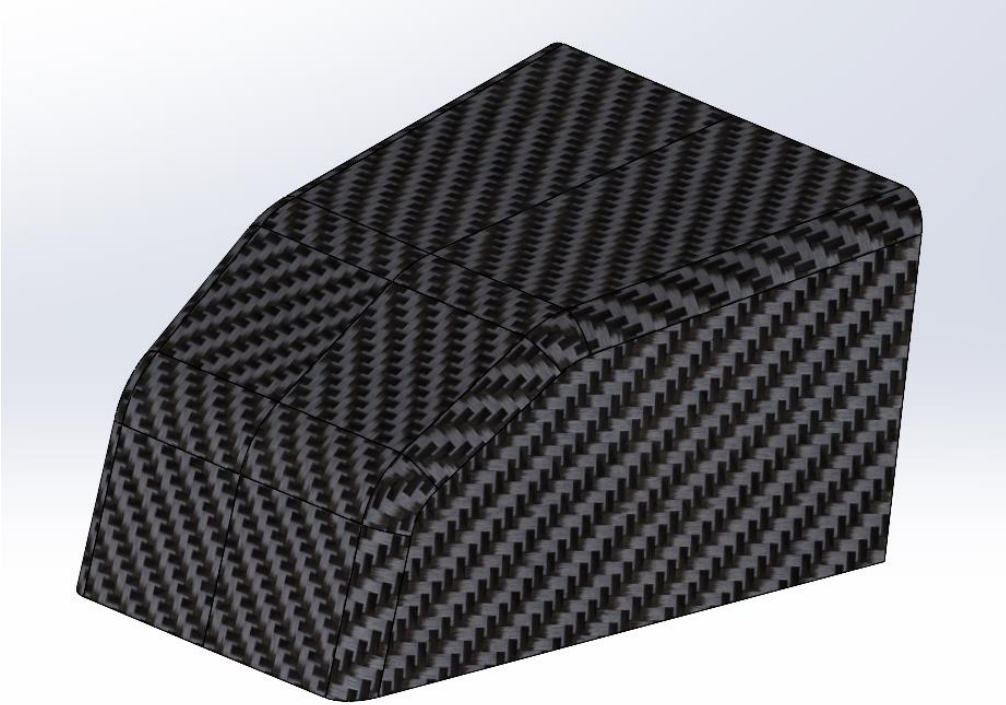


SAE Baja '24 Frame

100% Hardware Check

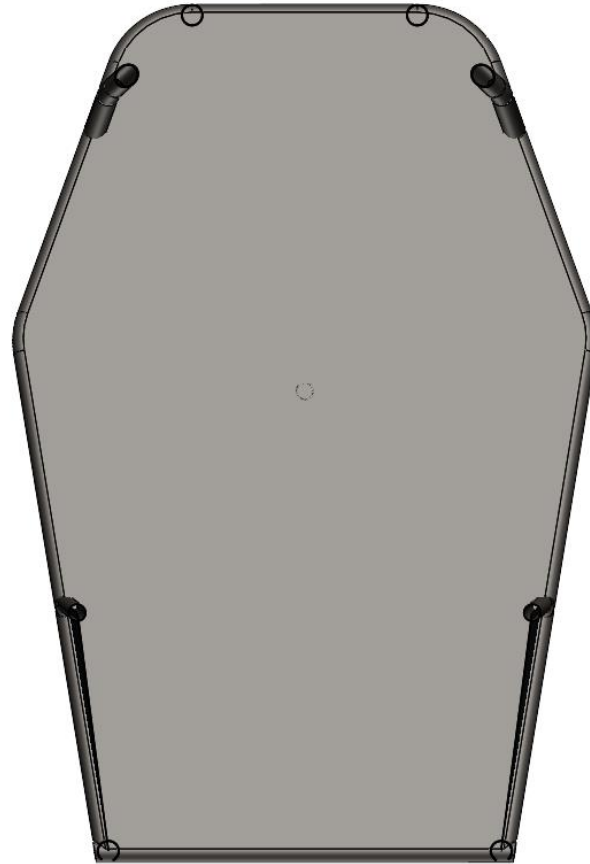
Antonio Sagaral, Cooper Williams, Gabriel Rabanal

Design Efforts



Front Cowl

- Protects breaking and throttle system



Firewall

- Protects driver from HROE

Design Efforts

System	Current State
Frame	100% Designed, 95% Welded
Frame Tabs	100% designed, 95% Welded
Seat	100% Designed, 100% Manufactured
Side Paneling/ HROE Guards	100% Designed, Manufacturing ongoing



Purchasing Plan

Part	Description	Manufacturer/Vender	Qty	Units	Make/Buy	Part Status	Lead Time	Unit Cost	Cost	Obtained
Primary Members	4130 1.25x.065" tubing	IMS	45	ft	Buy	Welded	0	0.00	0.00	Y
Secondary Members	4130 1x.035" tubing	BFS	45	ft	Buy	Welded	0	8.00	569.00	Y
Harness	Standardized	RaceQuip	1	unit	Buy	In House	0	0.00	0.00	Y
Submarine Straps	Standardized	RaceQuip	2	unit	Buy	In House	0	0.00	0.00	Y
Fire Extinguisher	5BC Standard	TBD	2	unit	Buy	In House	0	0.00	0.00	Y
Fuel Tank	Pyrotec SFC1000 Fuel Tank	Pyrotec	1	unit	Buy	In House	0	350.00	350.00	Y
Exhaust Deflector	Kohler PN: 17 730 03 S	Kohler	1	unit	buy	In House	0	0.00	0.00	Y
Fuel Filter	Kohler in-line Fuel Filter	Kohler	1	unit	Buy	InHouse	0	0.00	0.00	Y
Extinguisher Mount Bracket	Drake FIREX-MNT-DAG	Drake	1	unit	Buy	In House	0	0.00	0.00	Y
Fuel Tank Mounting Washers	McMaster Carr 94733A723	McMaster	8	count	Buy	In House	0	0.00	0.00	Y
Mounting Hardware	Misc. nuts, bolts, washers needed	TMS Titanium/ Copper State	N/A	unit	Buy	In House	0	0.00	0.00	Y
Total Cost									919.00	

$\frac{11}{11} = 100\%$ of components purchased or on-hand

Manufacturing Plan

Part	Description	Manufacturer/Vender	Qty	Units	Make/Buy	Part Status	Lead Time	Unit Cost	Cost	Obtained
Frame	Secondary and Primary members	BAJA Team		NA	Make	Welded	0	0	0.00	Y
Tabs	4130 0.1" sheet	VROOM Engineering	13	in^2	Make	Welded	0	0.00	0.00	Y
Paneling	Carbon Fiber	Novakinetics	9	ft^2	Make	Manufacturing	0.5 Weeks	0.00	0.00	N
Seat	Carbon Fiber	Novakinetics	1	ft^2	Make	Manufactured	0	0.00	0.00	Y
Skid Plate	Carbon/Kevlar Weave	Novakinetics	6	ft^2	Make	Manufacturing	0.5	0.00	0.00	N
Firewall	.02" sheet metal	IMS	10	ft^2	Make	To Be Manufactured	0.5 Weeks	0.00	0.00	Y
									Total Cost	0.00

$\frac{2}{3} = 66\%$ of parts have been manufactured

Gantt Chart Updates

Project start date: 2/27/2024

Milestone marker: 1 1

Milestone description	Assigned to	Progress	Start	Days
Paneling				
Design Finalized	Cooper	100%	2/27/2024	0
Design Sent		100%	2/27/2024	0
Design fitted to car		0%	3/29/2024	2
Seat				
Seat Designed	Cooper	100%	2/27/2024	0
Seat manufactured		100%	2/27/2024	0
Seat fitted in its final place		50%	3/29/2024	2
Suspension Tabs				
	Gabe/Antonio			
Tabs design finalized		100%	2/27/2024	0
tabs submitted for manufacturing		100%	3/1/2024	0
Jig Made and ready to go		100%	2/27/2024	0
Tabs welded on frame		100%	3/25/2024	0

Gantt Chart Updates

Engine Mounts				
Engine Mounts designed	Gabe	100%	2/27/2024	0
Engine mounts manufactured		100%	3/2/2024	0
Jig for engine mounts?		100%	2/27/2024	0
Mounts welded in the frame		100%	3/8/2024	0
Front Gearbox				
	Antonio			
Mounts designed		100%	2/27/2024	0
mounts manufactured		100%	3/2/2024	0
mounts welded in the frame		0%	4/1/2024	3
Rear Gearbox				
	Antonio			
Mounts designed		100%	2/27/2024	0
mounts manufactured		100%	3/2/2024	0
Mounts welded in the frame		100%	3/8/2024	0
Gas Tank				
mounts manufactured	Gabe	100%	2/27/2024	0
mounts in frame		100%	3/27/2024	0
tank in frame		95%	3/28/2024	1

Challenges and Outlook

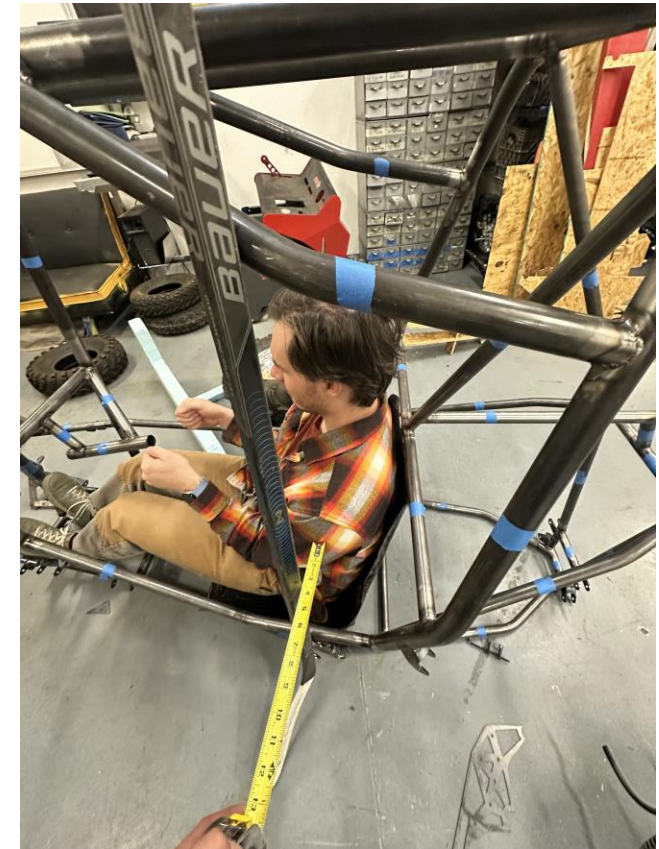
Challenges

- Drivetrain and 4WD Integration
- Timeline for tuning before competition

Outlook

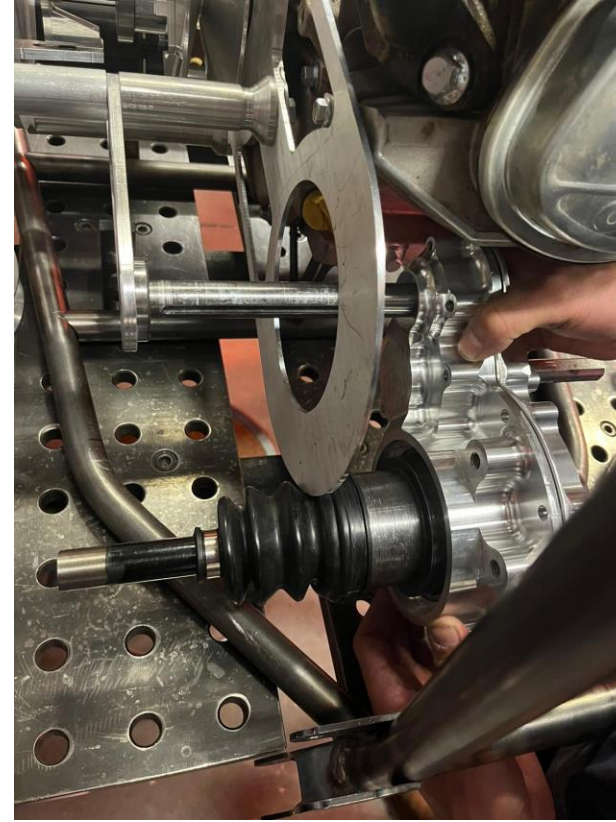
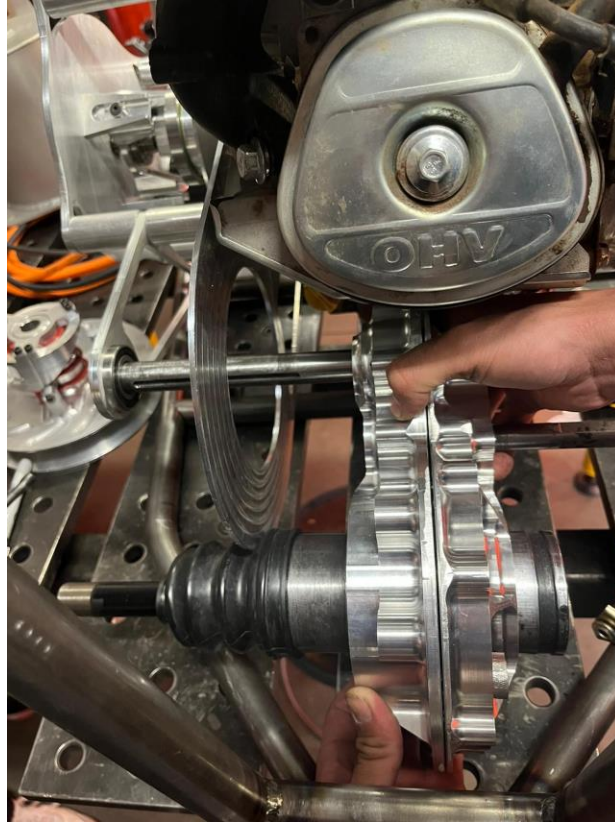
- Complete subsystem integration
- Side paneling completion
- Driver safety harness integration
- Drivetrain and HROE guard integration

Project Demo



Roll Cage structure is 95% welded, only small integration parts left to be welded

Project Demo



Suspension successfully integrated, working on drivetrain integration