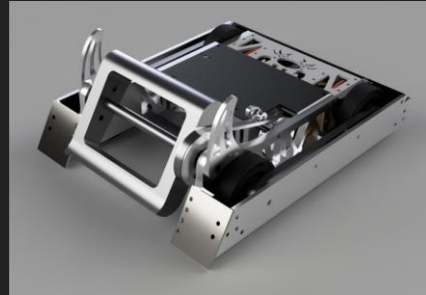
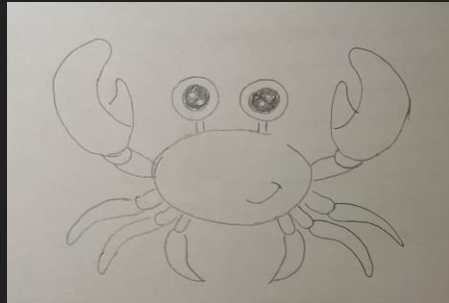


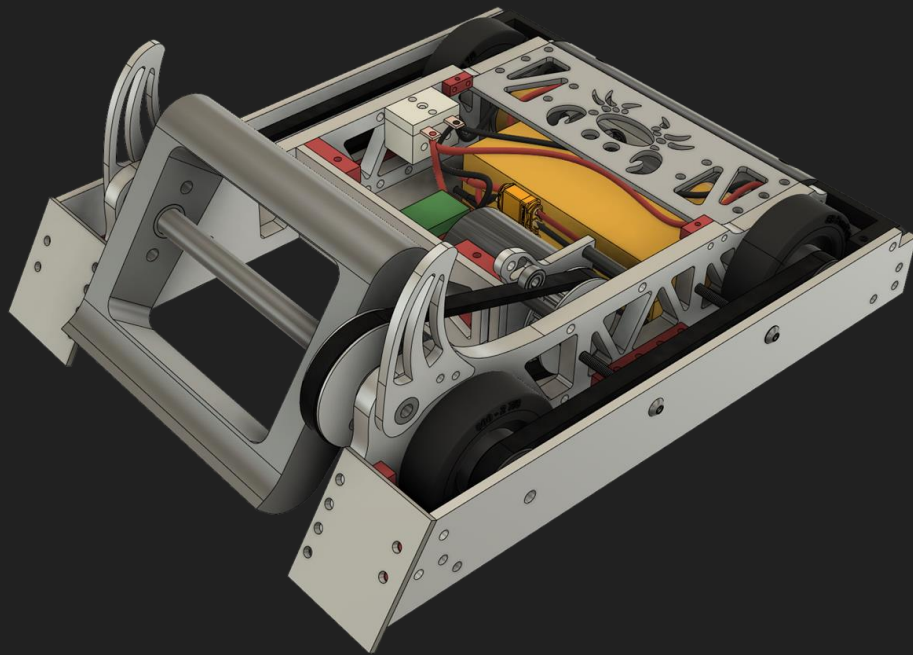
HOLY CR@B!! Design Review 3

By: Aashrith, Alice, Katrina, Nolan, Ryker, Thomas



Overall Progress

- Initial electronics BOM complete, hardware BOM nearly complete
- Weight in CAD down to 14.4 lb



HOLY CR@B!!	Total	\$776.71		\$1,167.00	
Item	Comments	Status	Date Received	Subgroup	Listed Product Name
Mechanical					
Drive Gearbox	17:1 gearing	To-Order		Drive	↳ P6S Gearbox: Standard Duty,
Weapon	Got it for free lmao	To-Order		Weapon	↳ Son of a Glitch's Weapon
Wheel Hub	Fits onto output of gearbox	To-Order		Drive	↳ T81 Hub, 1/2in Shaft
Weapon Bearing	What SoG did last year	To-Order		Weapon	↳ Needle Roller Bearing: Drawn
Weapon Axle	ALSO FOR WHEELS* Need total of 11"	To-Order		Weapon	↳ 4140 Alloy Steel Rotary Shaft
Weapon Pulley		Considering			
Weapon Pulley Bearing	Should press fit into Weapon Pulley	Considering			
Wheel Pulleys	Markforged (Ryker)	To-Order		Drive	↳ 20T Custom Pulley
Wheel Belts	20T to 20T 5mmHTD Pulleys, 200 mm	To-Order		Drive	↳ 100t x 9mm Wide Timing Bel
Wheels		To-Order		Drive	↳ BaneBots Wheel, 2-7/8" x 0.8
Wheel Screws	M2 - 35mm long	Considering		Drive	↳ 35mm screw
HDPE Sheet	Top Plate (wit da Crab)	To-Order		Armor	↳ HDPE Sheet High Density Poly
Motor Weapon Pulley		Considering		Weapon	
Titanium Wedge	Titanium Grade 5	To-Order		Armor	↳ Custom (SendCutSend)
Carbon Fiber Top Plate	Top Plate	To-Order		Armor	↳ Custom (SendCutSend)
Nut Strips (Type 1)	0.375in_Medium_NutStrip_Corner_R1	To-Order		Armor	↳ 0.375in_Medium_NutStrip_C
Nut Strips (Type 2)	0.375in_Medium_NutStrip_2x1_R1	To-Order		Armor	↳ 0.375in_Medium_NutStrip_2
Nut Strips (Type 3)	0.250in_Mini_NutStrip_2x1_R1	To-Order		Armor	↳ 0.250in_Mini_NutStrip_2x1_f
Nut Strips (Type 4)	0.375in_Medium_NutStrip_4x4_R1	To-Order		Armor	↳ 0.375in_Medium_NutStrip_4

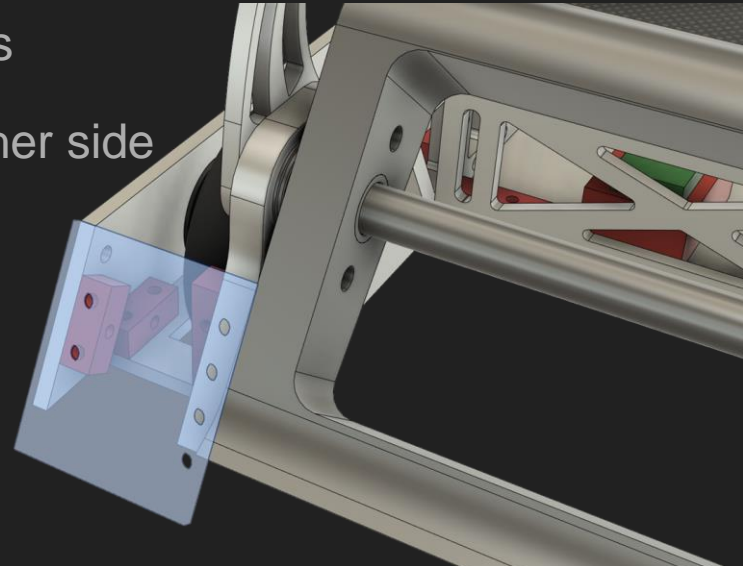
Wedge Connections

Current Idea: Nut strip at an angle, attach parallel to that. Other side is bolted into the side rail itself

- This won't allow us to do the fork configuration we wanted previously :(

Removed bent piece that previously covered sides

Idea 2 (Not in CAD): Copy angled nutstrips to other side if we don't trust tapping into $\frac{3}{8}$ material.



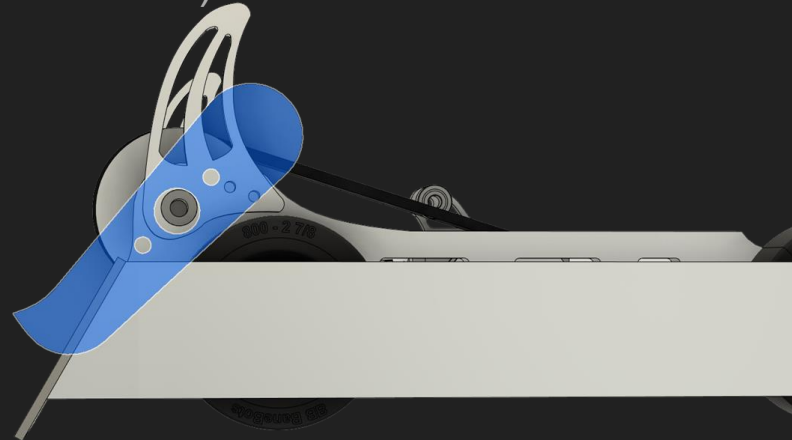
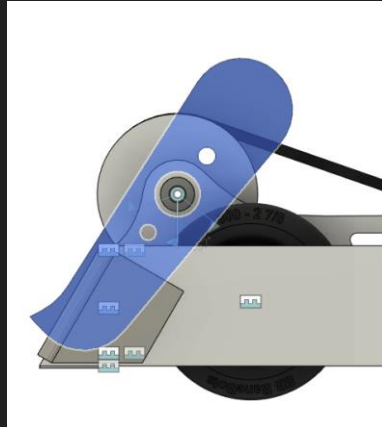
Weapon System and Positioning

Moved the weapon forward $\frac{1}{4}$ inch (Recommendation from last meeting, since it was too far back and wouldn't hit too well)

Added more material around the weapon axle (Rec from last meeting)

Belt is oversized (Current CD: 4.9, Recommended CD: 5.1)

- Idler Needed?

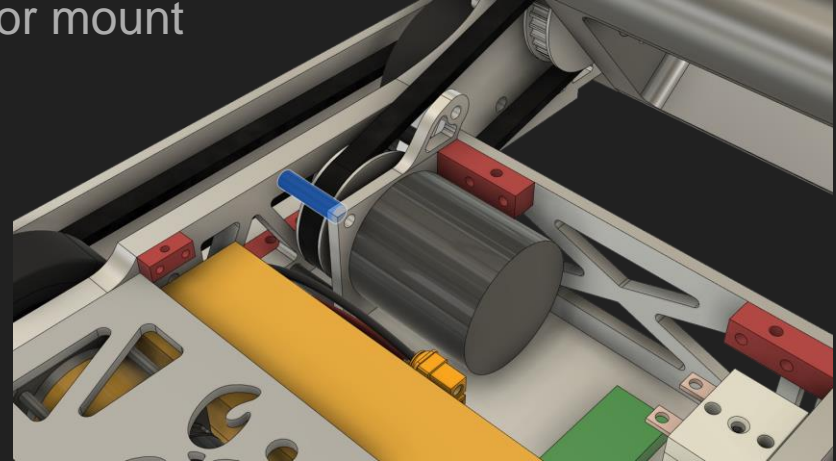


Front Plate/Weapon Motor Connection

Not too strong of a connection last time, added standoffs

Front Plate has been thickened to 3/16, allowing for stronger connections with nutstrips

Also an insert at the bottom of plate for motor mount

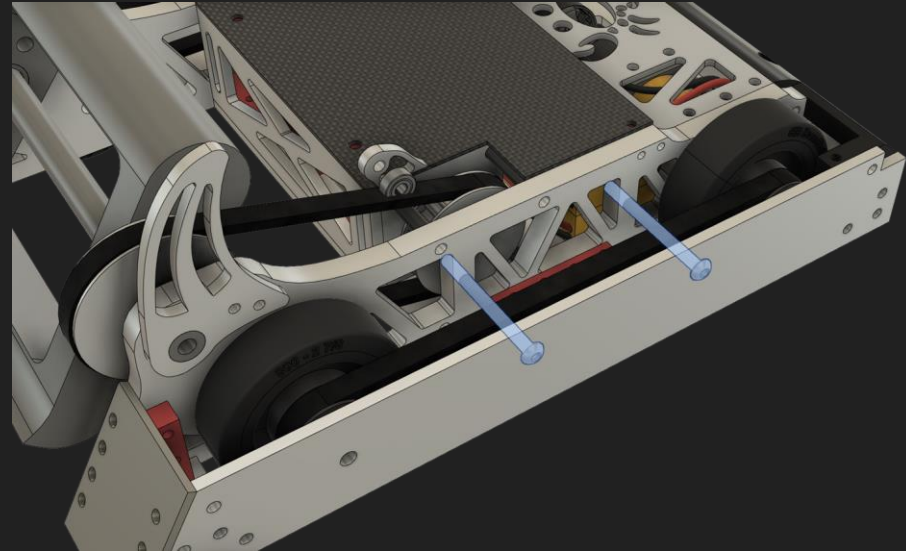


Side Top Plate Updates

Rec: Removed top plate to save weight

Currently planning on using 3d Printed standoffs + throughbolts

- Need to switch to metal standoffs?
- Possibly use bolt + lock nuts



Electronics Updates

- Added a dedicated BEC (more weight/space efficient than changing drive ESCs)
- Found the Flysky FS-i6 6CH 2.4GHz transmitter, cheaper than Taranis
 - \$50 vs \$140
- Added LED power indicator light

