

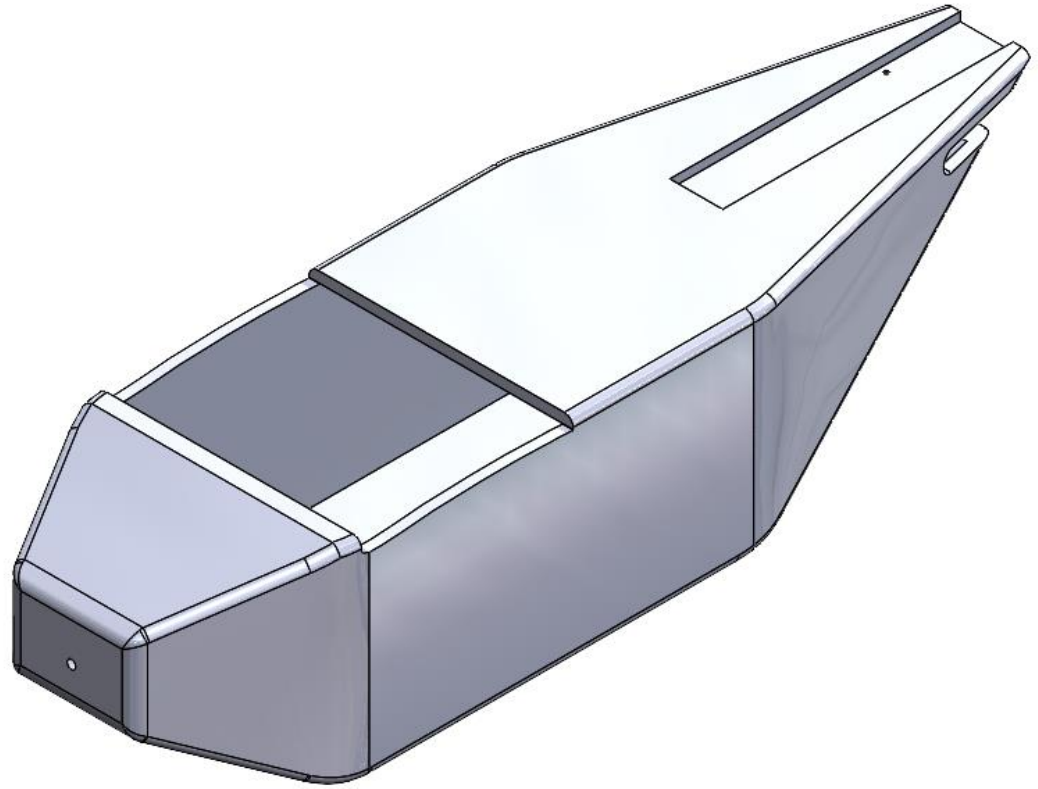
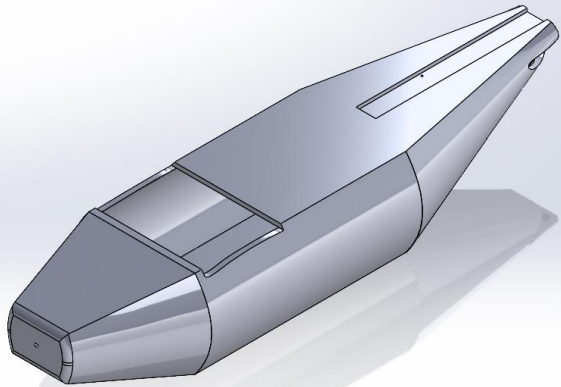
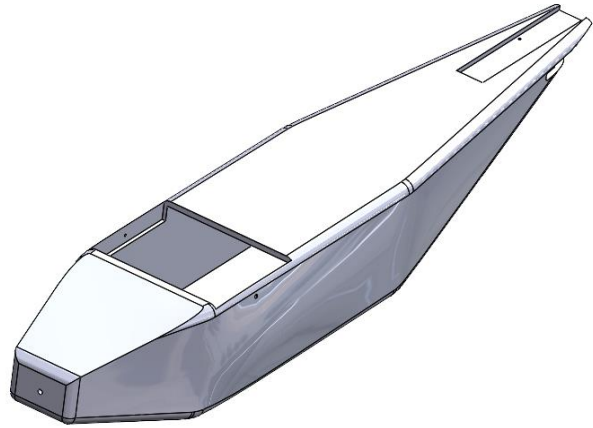
SAE MICRO AERO HARDWARE UPDATE

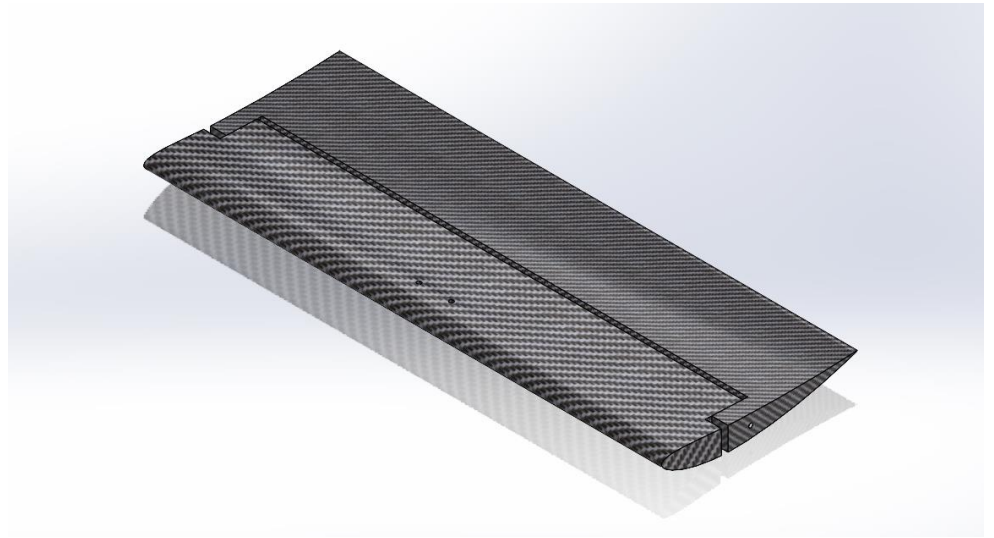
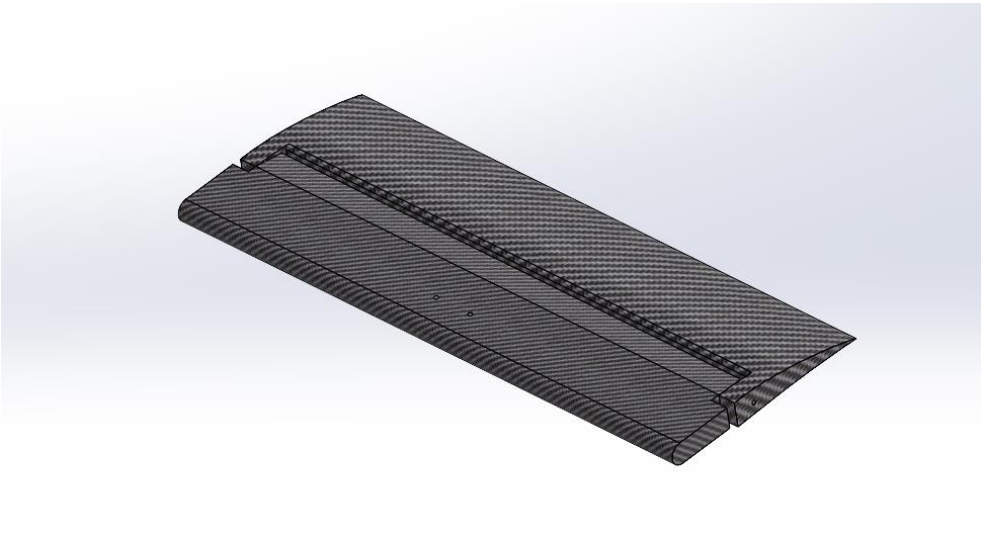
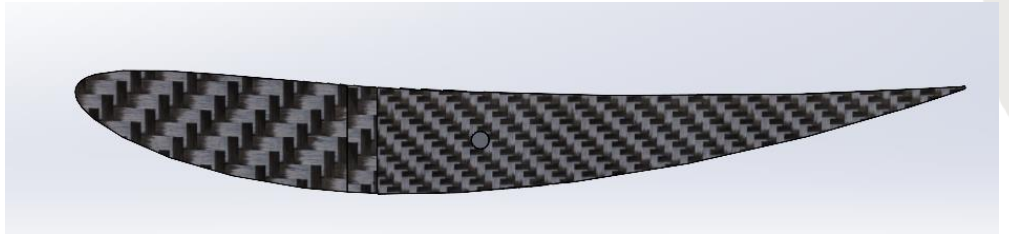
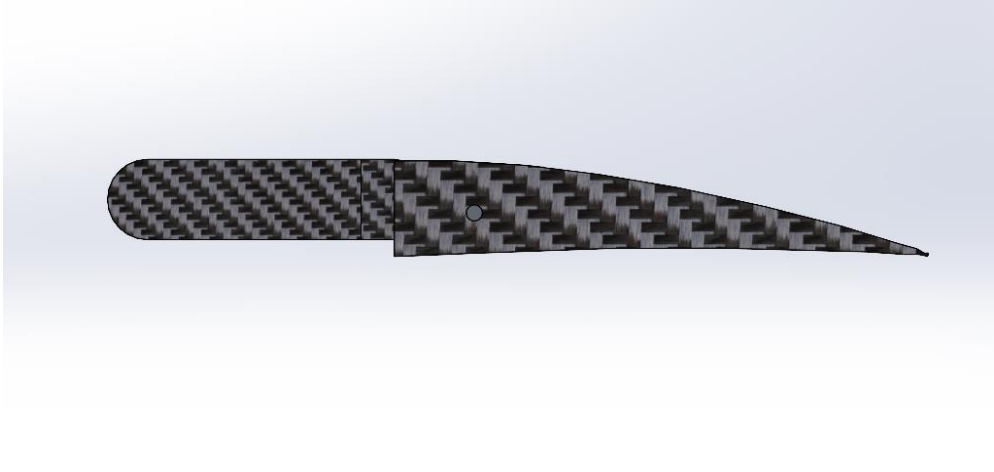
By: Ryan Downey, Katrina Kevorkian,
Spencer Makar, Hector Medrano,
Connor Nolan, Ethan Shoemaker

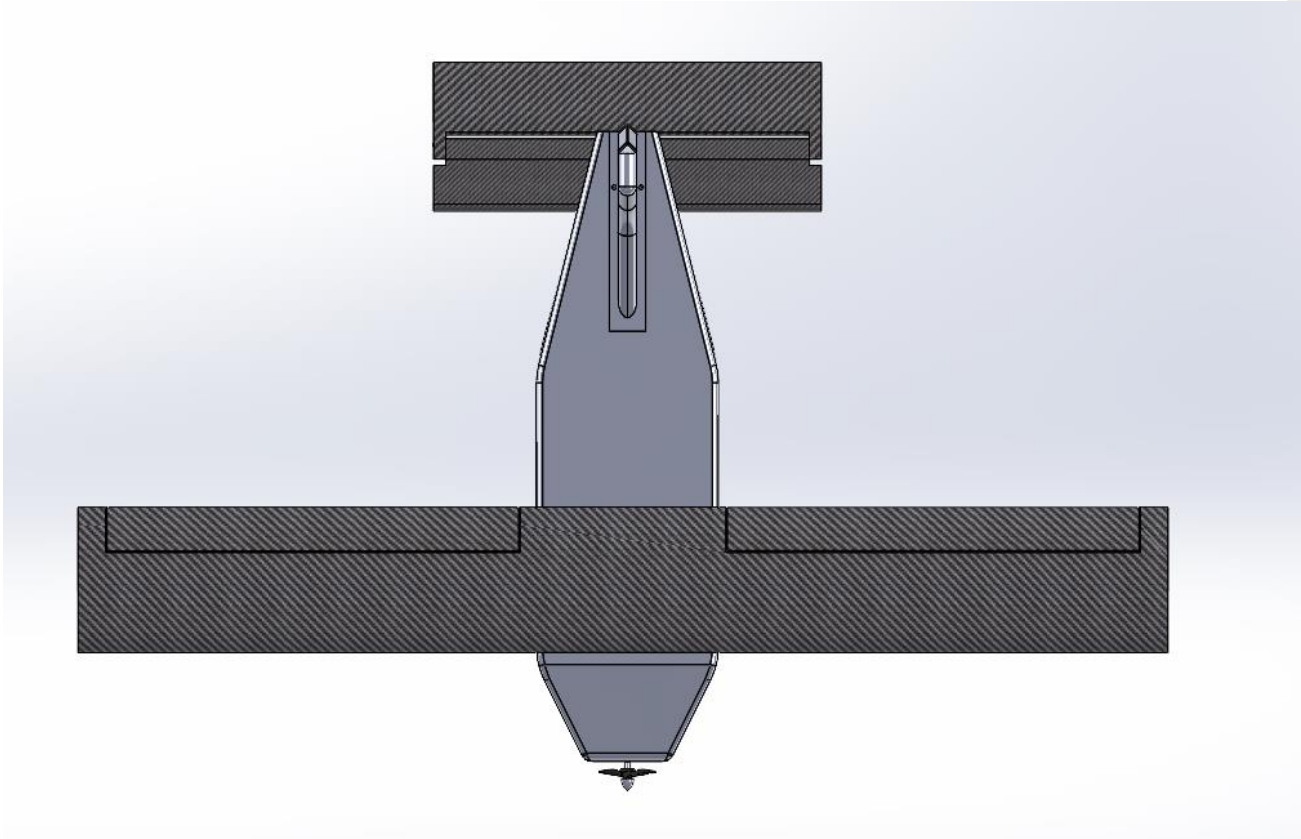
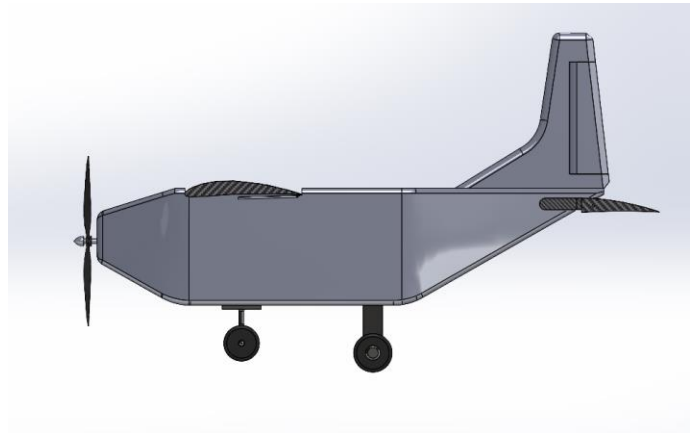




CAD









WINGS



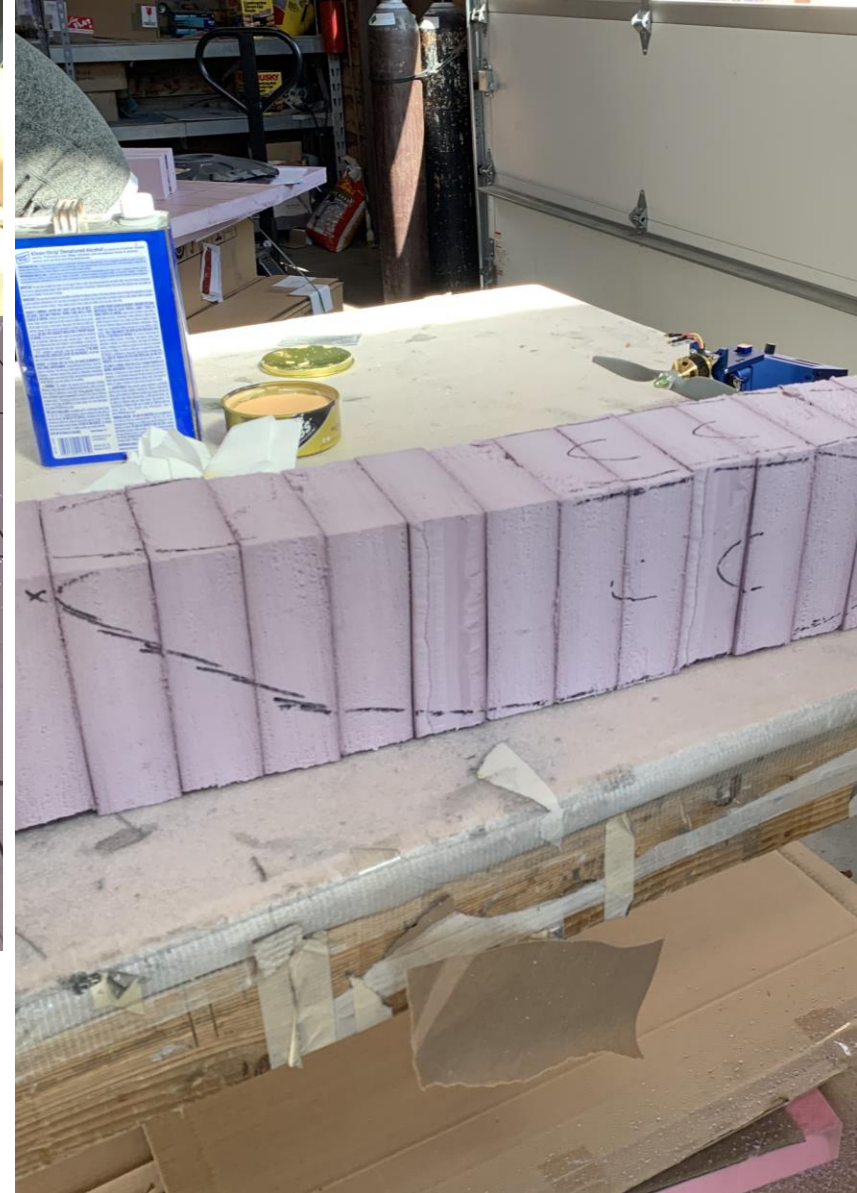
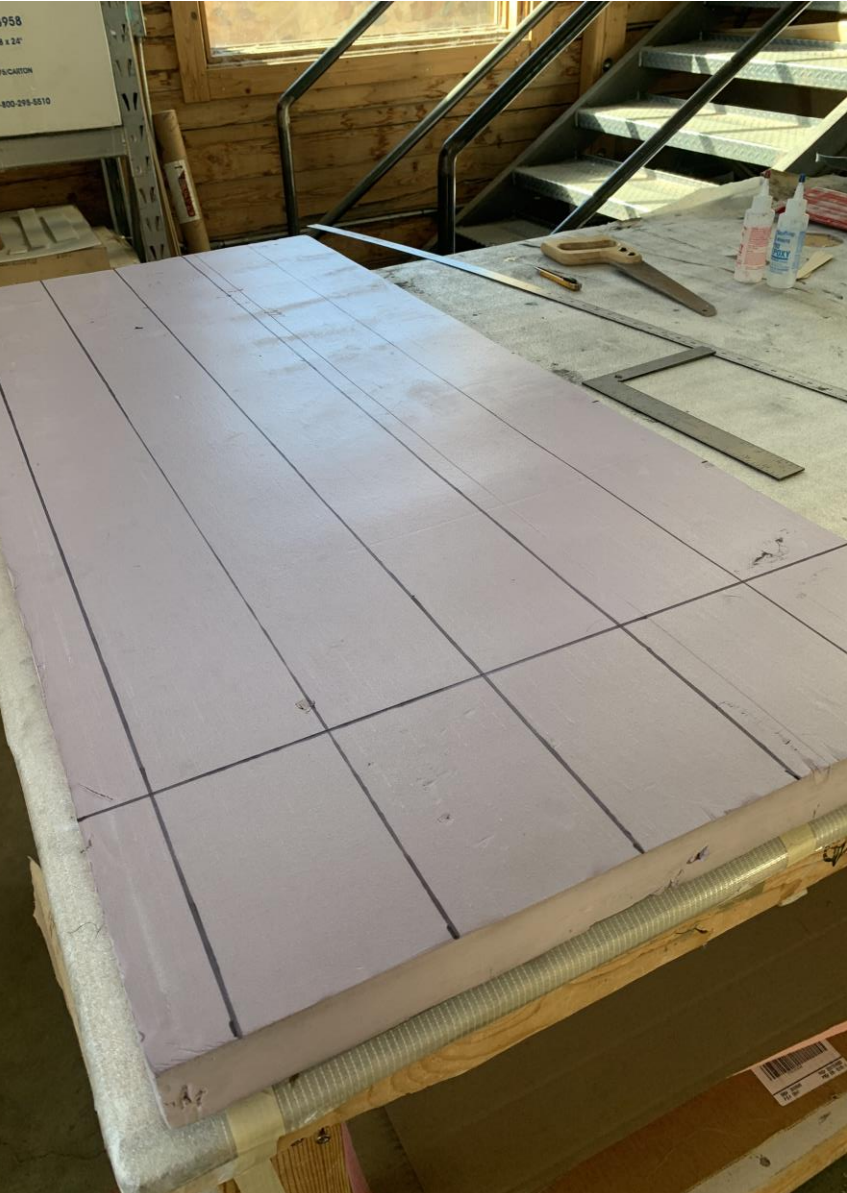








FUSELAGE







NEXT STEPS

- Fuselage
 - Add horizontal and vertical stabilizers
 - Skin mold with carbon fiber
 - Remove foam
 - Drill holes for hardware
- Install electronics
- Connect all control surfaces to servo motors
- Fly
- Iterate on design

GANTT CHART UPDATES

SAE Micro Aero

SIMPLE GANTT CHART by Vertex42.com
<https://www.vertex42.com/ExcelTemplates/simple-gantt-chart.html>

SAE Micro Aero

Project Start:

Display Week:

TASK	ASSIGNED TO	PROGRES S	START	END	Jan 10, 2022	Jan 17, 2022	Jan 24, 2022	Jan 31, 2022	Feb 7, 2022	Feb 14, 2022	Feb 21, 2022	Feb 28, 2022													
					# 1 1 # # # # #	# # # # # # # # #	# # # # # # # # #	# 1 2 3 4 5 6	7 8 9 # 11 # #	# # # # # # # # #	# # # # # # # # #	# 1 2 3 4 5 6													
					M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S	S
Refelection	Team	100%	1/10/22	1/14/22	█																				
Gantt Chart	Ryan/Conner	100%	1/10/22	1/14/22	█																				
Purchasing Plan	Katrina	100%	1/10/22	1/14/22	█																				
Substitution Sections	Ethan	100%	1/10/22	1/14/22	█																				
Manufacturing Plan	Spencer/Hector	100%	1/10/22	1/14/22	█																				
Self Learning / Technical Analys	Individually	100%	1/10/22	1/26/22	█	█	█	█	█	█															
Hardware Status Update 1	Team	100%	1/10/22	2/7/22	█	█	█	█	█	█															
Phase 2: Second Hardware Status Lead Up																									
Hardware Status Update 2	Team	67%	2/7/22	2/28/22						█	█	█													

- Manufacturing is underway, assembly starting soon
- Working towards next hardware status update
- Testing is expected to start as soon as possible

BILL OF MATERIALS

SAE Aero Capstone Project

NOTE: Difference columns in table will show if actual went over estimated amounts. Red numbers show went over (negative) and black shows under numbers (positive).

								Itemized Cost (\$)	
Area	Items	Primary Vendor	Manufacturer	Lead Time	Quantity	Make/Buy	Part Status	Price Per Part	Total Price
Electronics	Adaptors	Amazon	Share Goo Store	N/A	1	Buy	Assembled	\$9.42	\$9.42
Electronics	1000mAh Battery	Hobby King	Hobby King	N/A	3	Buy	Assembled	\$17.01	\$51.03
Electronics	Connectors	Hobby King	Hobby King	N/A	1	Buy	Assembled	\$3.03	\$3.03
Electronics	SAE Competition Power Limiter	SAE	SAE	N/A	1	Buy	Assembled	\$83.00	\$83.00
Electronics	Servos	Hobby King	Hobby King	N/A	5	Buy	Assembled	\$3.49	\$17.45
Electronics	Speed Controller	Hobby King	Hobby King	N/A	1	Buy	Assembled	\$21.99	\$21.99
Electronics	Wires	Amazon	National Hardware Store	N/A	1	Buy	Assembled	\$9.89	\$9.89
Electronics	1500mAh Battery	Hobby King	Hobby King	3 Weeks	3	Buy	02.25.2022.	\$27.78	\$83.34
Powerplant	9x4.7 V3 Propeller	ACP	ACP	3 Weeks	4	Buy	On Order	\$2.84	\$11.36
Powerplant	9x4.7 V3 Propeller	ACP	ACP	N/A	1	Buy	Assembled	\$2.84	\$2.84
Wings	Aileron	MakersLab	MakersLab	N/A	2	Buy	Being Manufactured	Donated	Donated
Fuselage	Fuselage	Novakinetics	Team	2 Weeks	1	Make	Being Manufactured	Donated	Donated
Tail	Elevator	Novakinetics	Team	1 Week	1	Make	In House	Donated	Donated
Tail	Horizontal Stabilizer	Novakinetics	Team	2 Weeks	1	Make	In House	Donated	Donated
Tail	Rudder	Novakinetics	Team	1 Week	1	Make	In House	Donated	Donated
Tail	Vertical Stabilizer	Novakinetics	Team	2 Weeks	1	Make	In House	Donated	Donated
Wings	Balsa Wood Ribs	NAU IDEA Lab	Team	1 Day	1	Make	Assembled	Donated	Donated
Wings	Airfoil	Novakinetics	Team	2 Weeks	1	Make	Assembled	Donated	Donated
Landing Gear	Front Landing Gear Pin	N/A	N/A	N/A	1	N/A	Assembled	Donated	Donated
Landing Gear	Front Landing Gear Support	N/A	N/A	N/A	1	N/A	Assembled	Donated	Donated
Landing Gear	Front Support	N/A	N/A	N/A	1	N/A	Assembled	Donated	Donated
Landing Gear	Wheel	N/A	N/A	N/A	2	N/A	Assembled	Donated	Donated
Powerplant	Propeller Assembly Rod	N/A	N/A	N/A	1	N/A	N/A	N/A	N/A
Powerplant	Propeller Nozzle	N/A	N/A	N/A	1	N/A	N/A	N/A	N/A
Subtotal								\$181.29	\$293.35
Unexpected Costs (add 5% estimated)								\$9.06	\$14.67
Total costs								\$190.35	\$308.02