



SAE AERO MICRO 1/3 build

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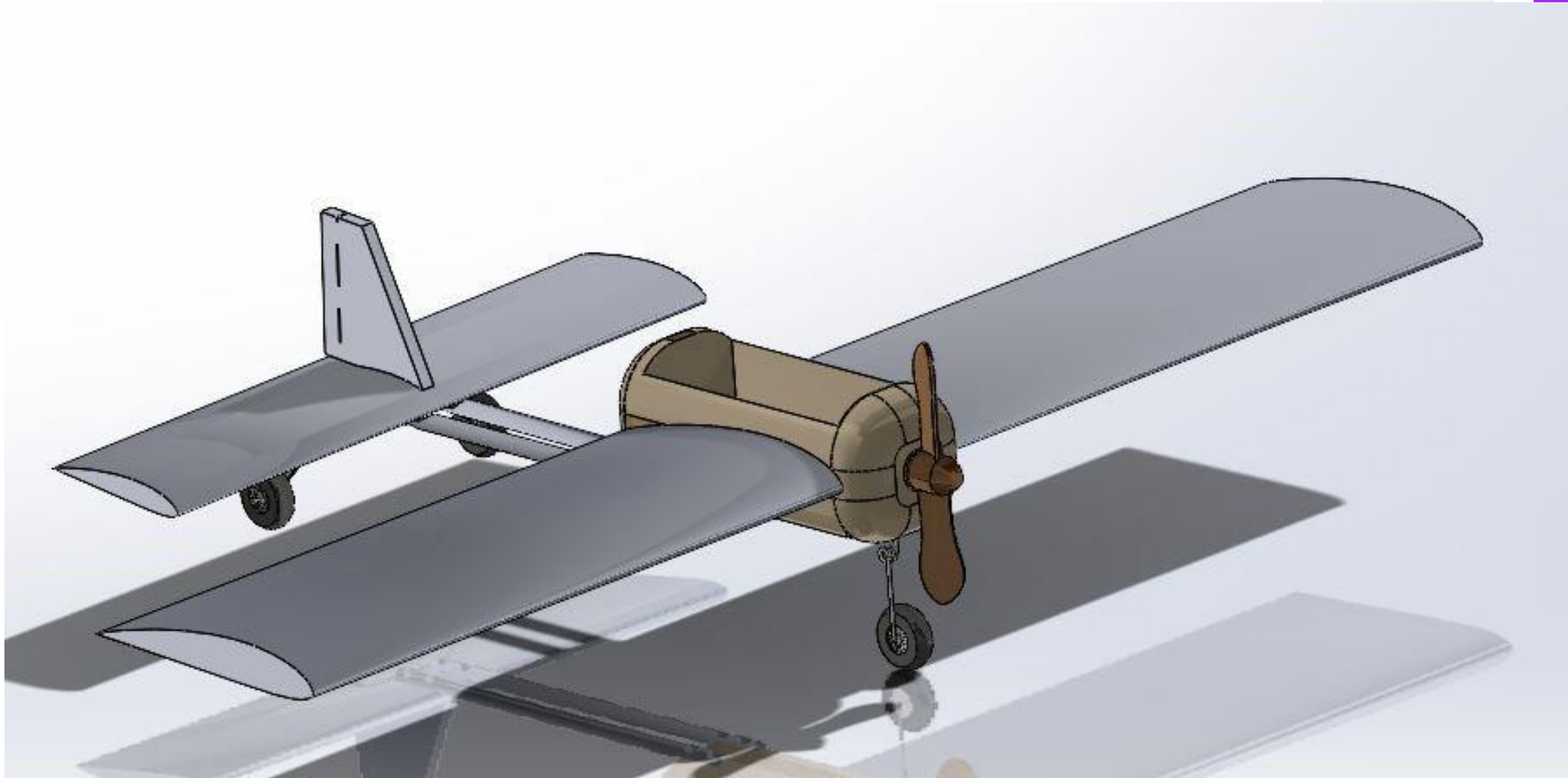


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Introduction

- SAE Aero Micro competition
 - 48 inch wingspan
 - 55 lb weight limit
 - Take off & land
- Main goal
 - Take off & land without failure

Previous CAD



Purchasing Plan

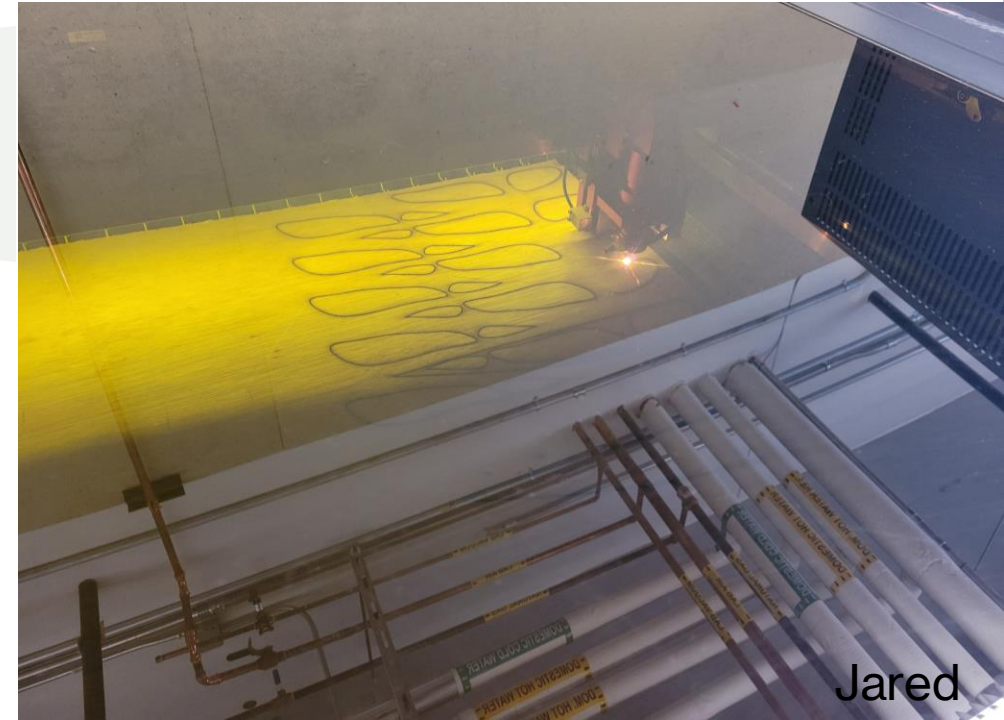
Part Number	Part Name	Subsystem	Detail	Quantity	Price (\$)	Part Status
1	Avian 4250-800kv Motor	Electronics	Main motor	1	89.99	Purchased ready for assembly
2	Aileron A4040 Servos	Electronics	Main Servos	4	54.99	Purchased ready for assembly
3	Lithium Pilymer Battery	Electronics	Main Battery	1	49.99	Purchased ready for assembly
4	RC Transmitter and reciever	Electronics	Controller	1	279.99	Purchased ready for assembly
5	3mm Depron Foam	Structure/Fuselage	Outer Structure (15.4"x24.4")	1	39.95	Purchased ready for assembly
6	ESC	Electronics	Electronic Speed Controller	1	69.99	Purchased ready for assembly
7	Propeller	Propeller	Propeller	2	20.79	Purchased ready for assembly
8	Balsa Wood	Structure	1/16"x11.5"x11.5"	3	23.97	Purchased ready for assembly
9	Gorilla Hot Glue Gun	Adhesive	Adhesive for raw materials	1	16.99	Purchased ready for assembly
10	Gorilla Hot Glue Sticks	Adhesive	Adhesive for hot glue gun	1	8.99	Purchased ready for assembly
11	Packing Tape	Adhesive	Adhesive for raw materials	1	11.28	Purchased ready for assembly
12	Sand Paper 120 Grit 6 pack	N/A	Forming raw material	1	6.97	Purchased ready for assembly
13	Square Carbon Tube	Structure	10mmx10mmx1000mm	1	31.77	Purchased ready for assembly
14	Aluminum	Landing Gear	1"x36"x1/8"	1	N/A	Aquired through SEA Aero
15	Landing Gear	Landing Gear	Landing Gear	1	N/A	Aquired through SEA Aero
16	Plywood	Structure	1/4"x4ftx8ft	1	60.98	Purchased ready for assembly
17	Eva Foam	Landing Gear	10mmx24"x60"	1	36.23	Purchased ready for assembly
18	Loctite	Structure	Threadlocker blue	1	7.38	Purchased ready for assembly
19	6mm Depron Foam	Fuselage/Structure	800mmx600mm	1	59.34	Purchased in transit
20	Bullet Adapter	Electronics	4mm female to 3.5mm male	1	11.58	Purchased ready for assembly
21	Saftey nut	Propeller	Propeller safety nut	1	6.99	Needs purchasing
					\$982.70	Total
					\$517.30	Remaining

Jared

Manufacturing Plan

Has Been and Currently being Manufactured

- Wings
- Fuselage
- Electronics
- Front landing gear



Manufacturing Plan

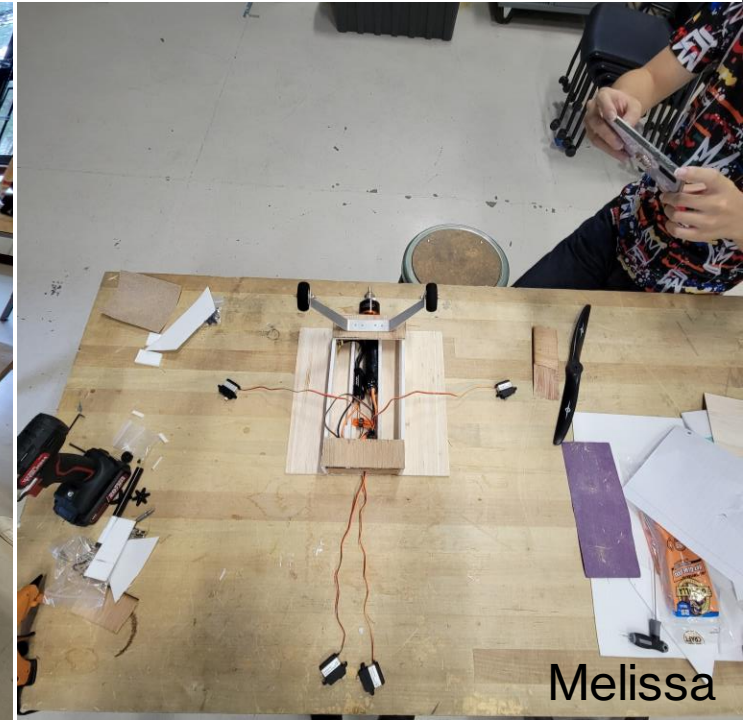
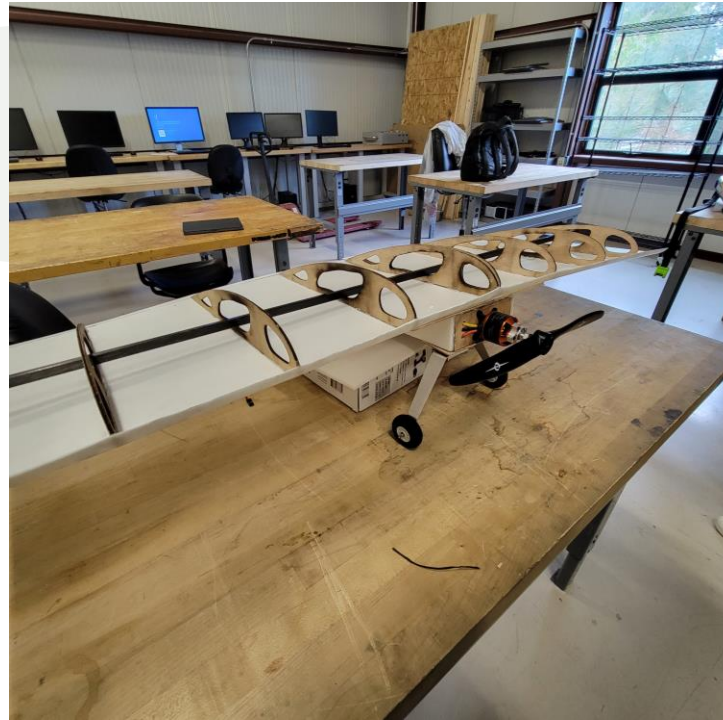
Needs to be Manufactured:

- Tail
- Rear fuselage
- Motor Cover
- Finish wings
- Ailerons
- Rear landing gear

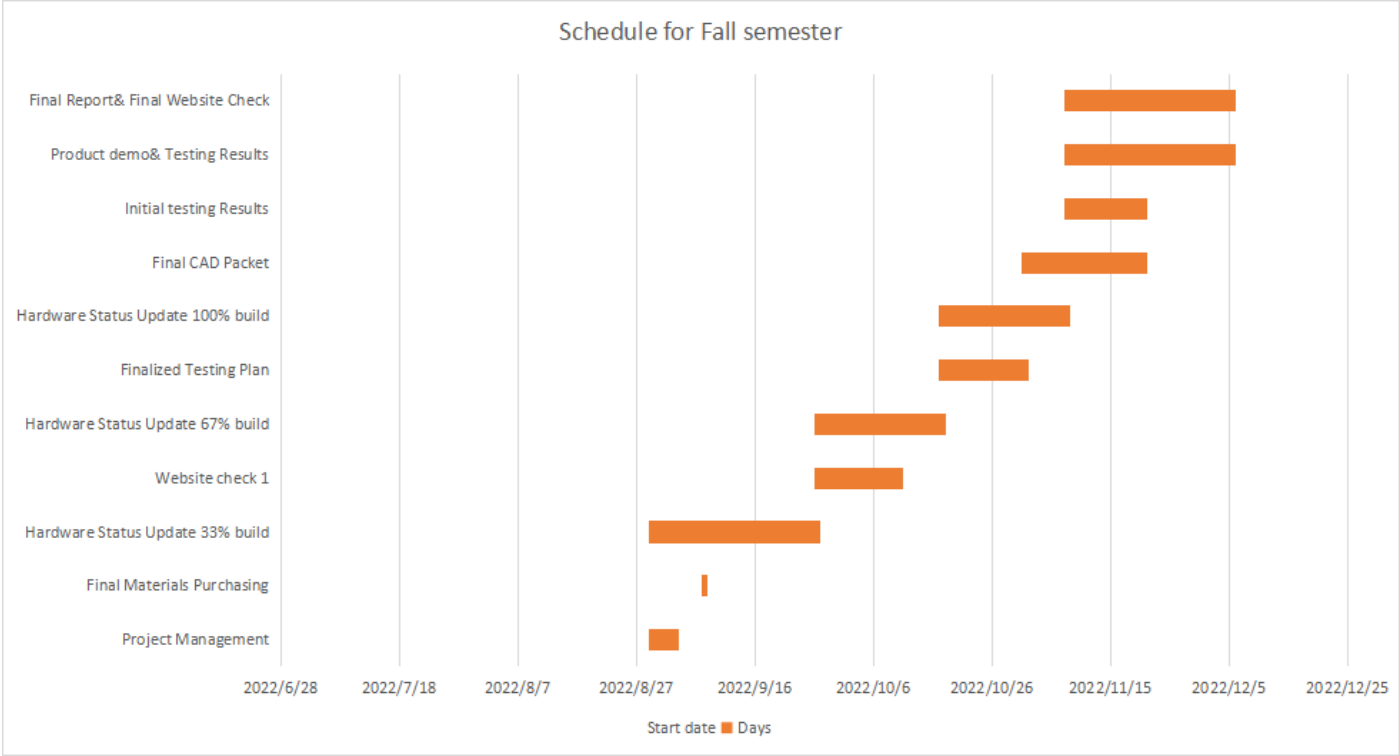


Demonstration

- - 2.1 lbs total
- - Motor rated for 6.5 lb
- - All electronics are calibrated
- - Durable
- - More iterations to come



Gantt Chart



Next steps:

- Create tail and rudder
- Attach tail and rudder
 - landing gear
- Balance to desired center of gravity

