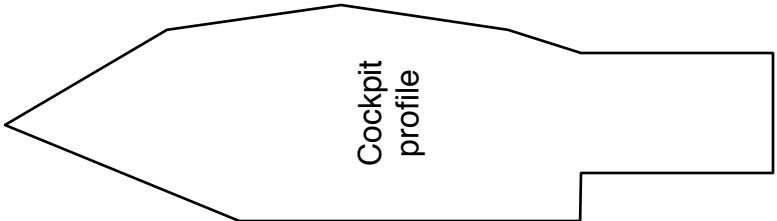
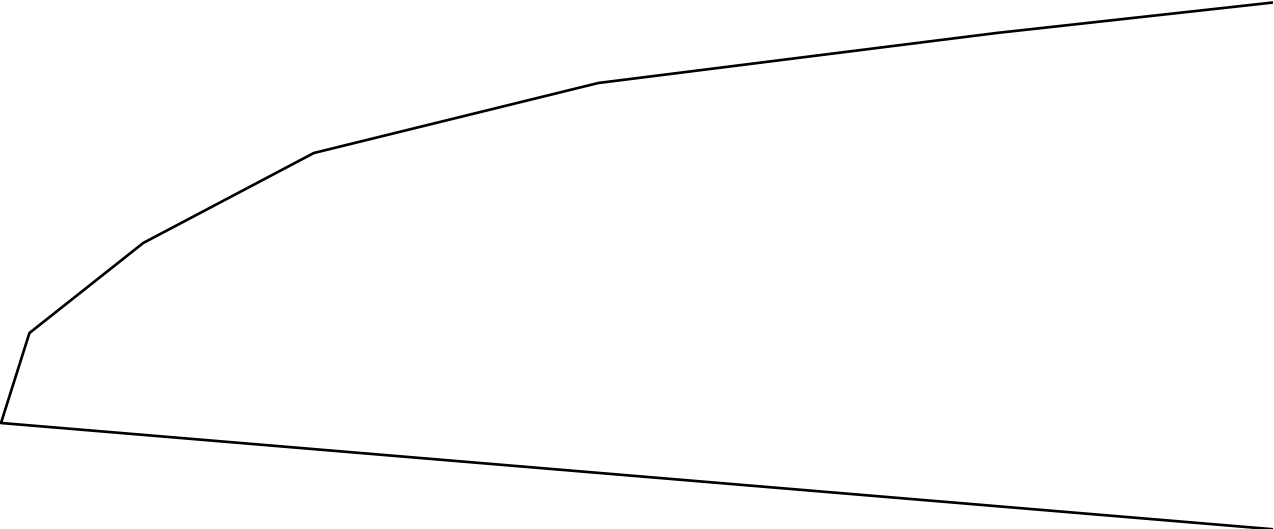
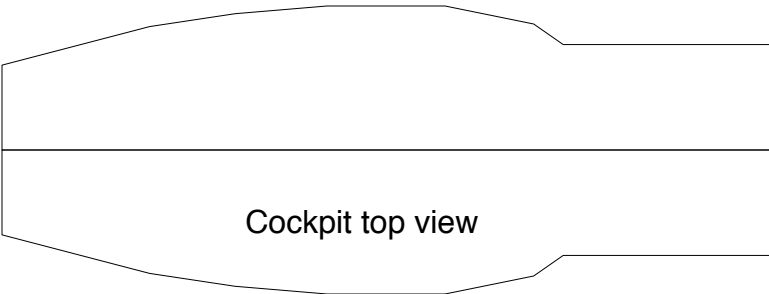


Dihedral line

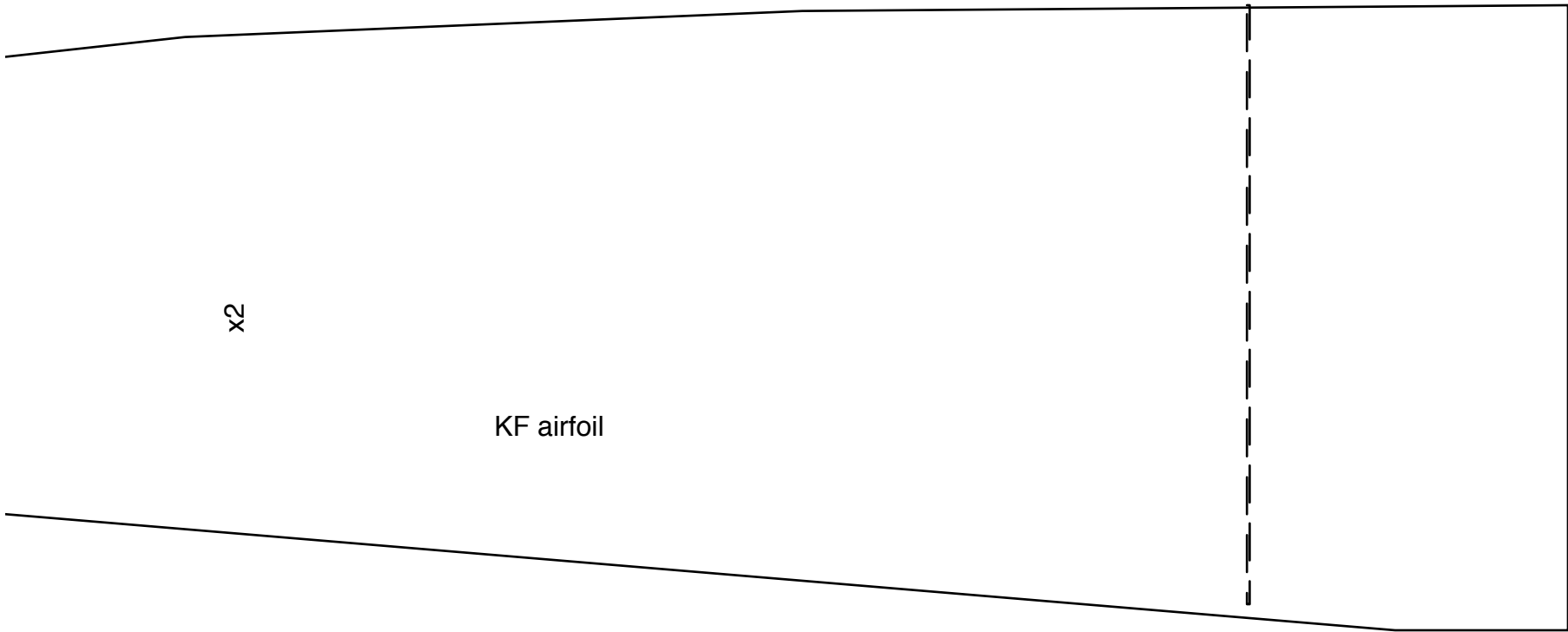
x2



Cockpit
profile

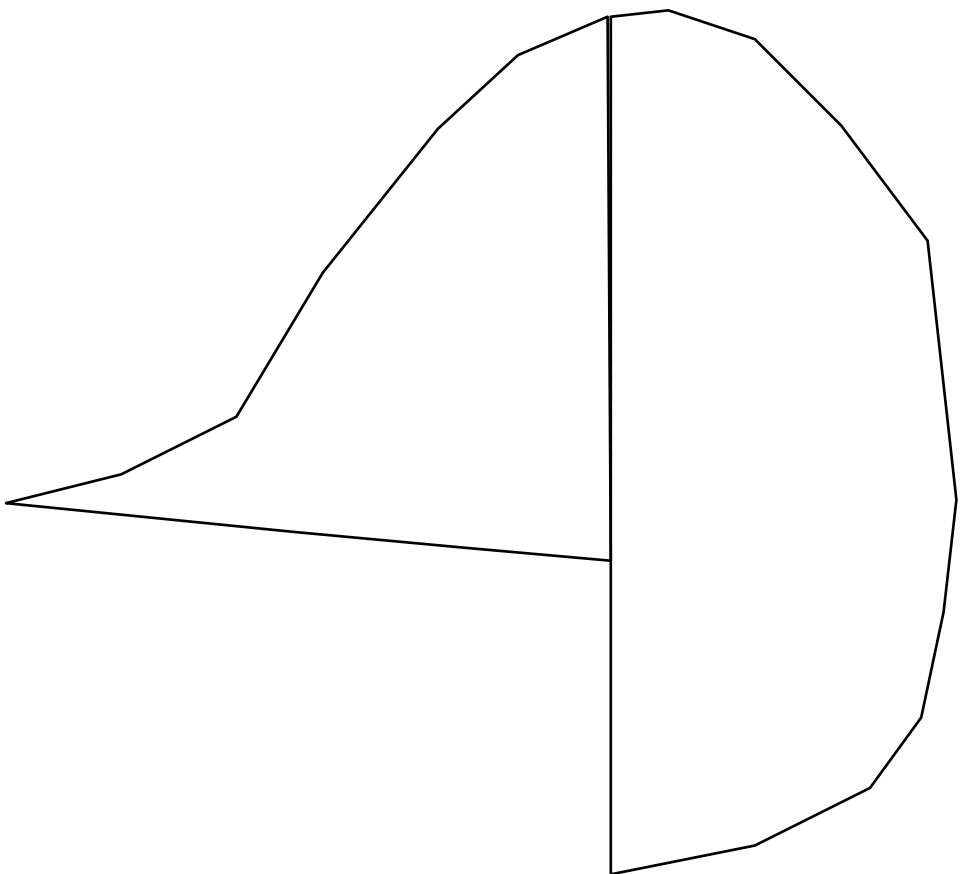


Cockpit top view

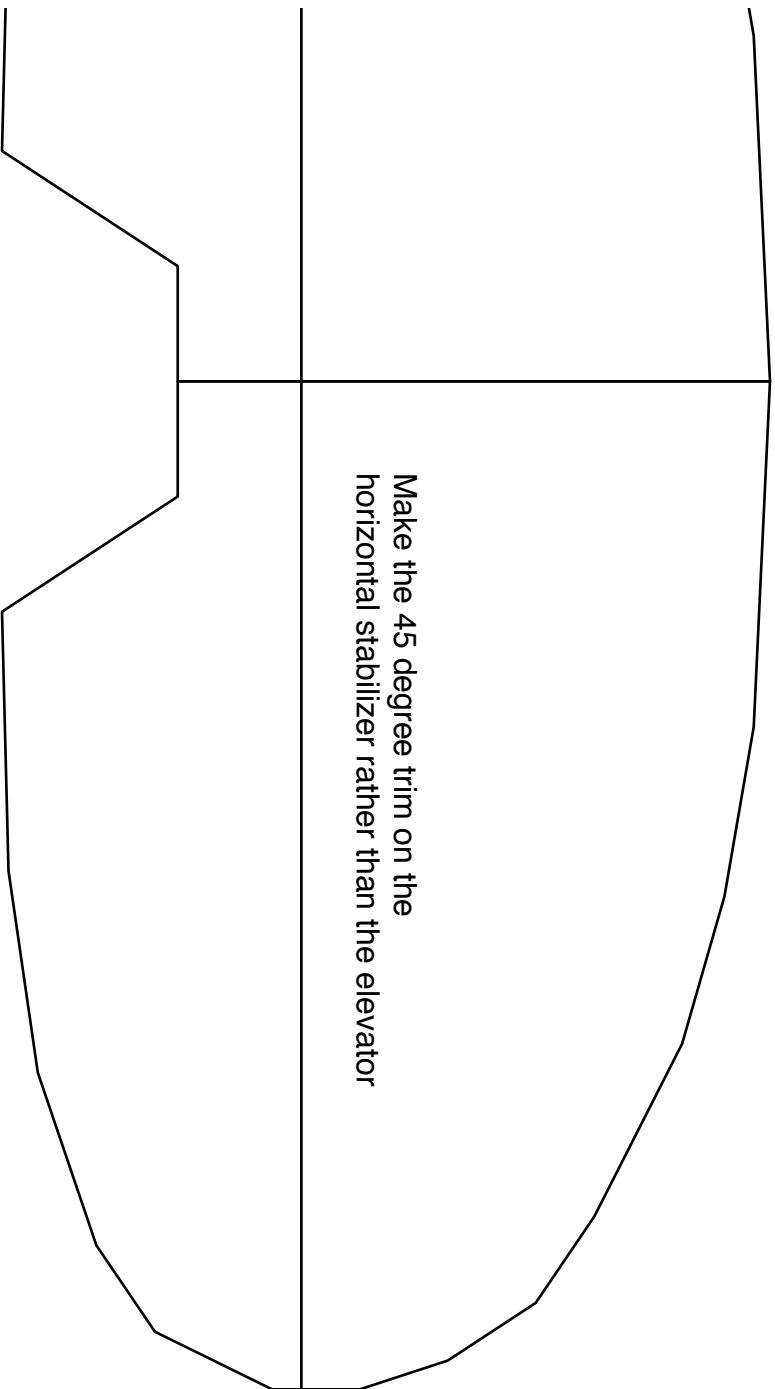


x2

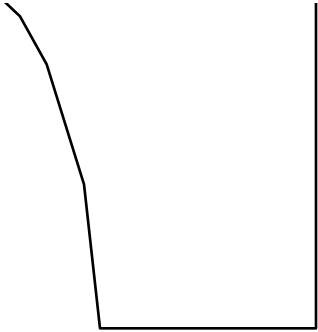
KF airfoil



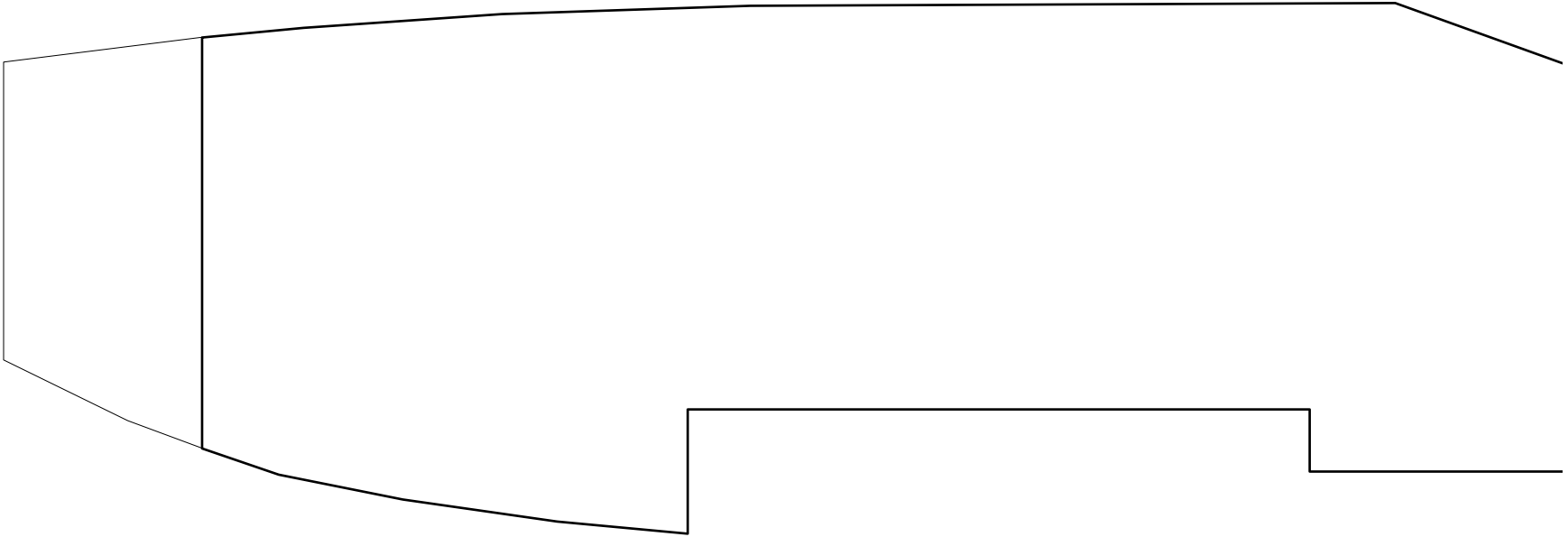
Make the 45 degree trim on the horizontal stabilizer rather than the elevator

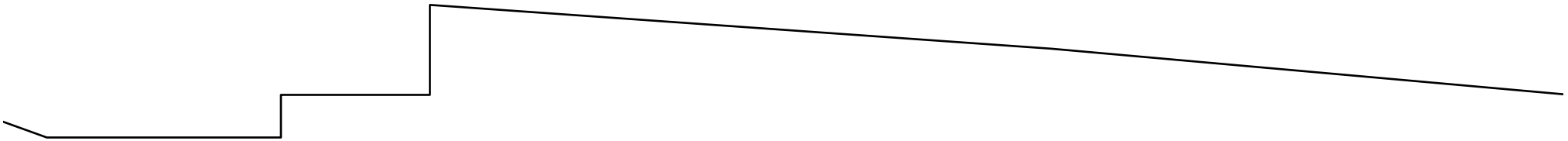
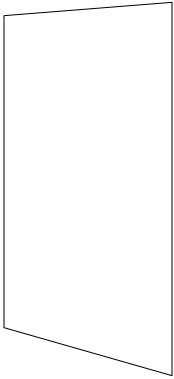


Fuselage bottom (in front of wing)



Fuselage top (in front of cockpit)

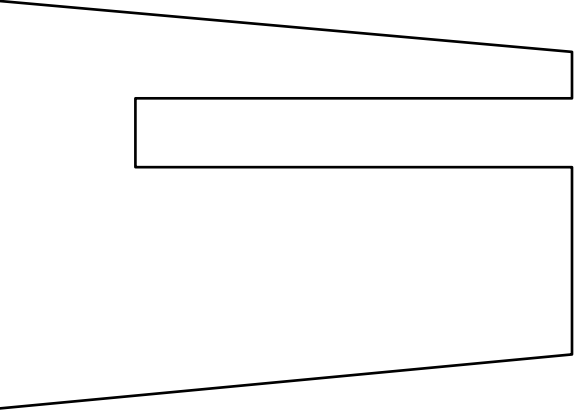
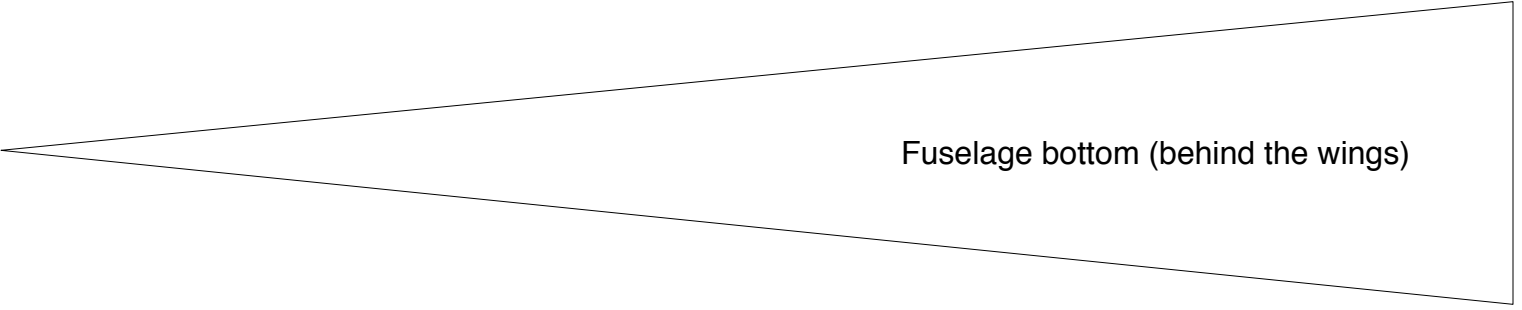
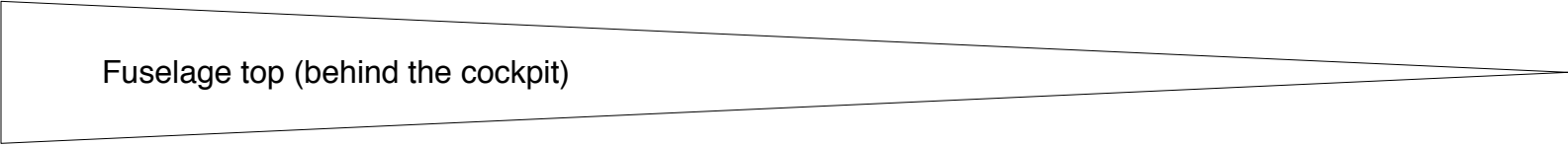




Fuselage side

x2

Cockpit "floor"





Wing dihedral template - 7 degrees
5mm x 1mm CF strips supper glued together and used as wing spars



Webocalc 1.5.2 - Imperial Units

Airframe

Ready-to-fly Weight (oz)	<input type="text" value="10"/>
Wingspan (in)	<input type="text" value="32"/>
Total Wing Area (sq in)	<input type="text" value="240"/>
Number of propellers	<input type="text" value="One"/>
Maximum prop size (inches)	<input type="text" value="8"/> Run Prop Size Wizard
Flight mission:	<input type="text" value="Medium unlimited aerobatics"/>

Powertrain

Desired top speed (mph)	<input type="text" value="36"/> Suggest top speed
Desired thrust (oz)	<input type="text" value="14"/> Suggest thrust
Motor efficiency (%)	<input type="text" value="Average outrunner (75%)"/>
Cell Type, Count, C-rate:	<input type="text" value="Lipo"/> <input type="text" value="3 S"/> <input type="text" value="20 C"/>
Battery Voltage (V)	<input type="text" value="10.8"/> Run Voltage Wizard
Desired current per motor (A)	<input type="text" value="5.8"/> Run Current Wizard
Motor Kv (rpm/volt)	<input type="text" value="1350"/> Run Kv Wizard

Motor Kv Help

If you plan to use a gearbox, motors with Kv between 2100 rpm/V and 3800 rpm/V are suitable.

If you plan to use a direct-drive motor, motors with Kv between 840 and 1000 rpm/V should be suitable.

If WebOCalc finds no suitable propellers using the suggested direct-drive Kv, try raising the Kv till propellers are found. Then lower the Kv in steps while WebOCalc continues to find suitable propellers.

Decide on a Kv, then click the 'Close' button.

[Close Prop Size Help](#)

Results

Flies Like:	Backyard Flyer.
Power Level: <i>(with white highlighted prop)</i>	Excellent. Unlimited vertical. Can hover. Thrust/weight about 1.4:1
Minimum Pilot Skill Needed:	Beginner level.
Minimum Flying Field Size:	730 x 520 feet.
Minimum Battery Capacity:	300 mAh, 20 C, lithium polymer.
Suggested ESC Rating:	7 A to 8 A.
Power Into / Out of Motor:	62.6 watts in / 47.0 watts out.
Power To Weight Ratio:	100.22 watts/pound.
Estimated Stall Speed:	12.0 mph.
Wing Loading:	6.00 oz/square foot.
Cubic Wing Loading:	4.62 oz/cubic foot.

Suggested Prop Sizes (approx):

For direct-drive, use props with gear ratio 1.00.

Adjust current and/or pitch speed if necessary to obtain this ratio.

White: propeller with most thrust.

Yellow: best choice for direct-drive.

Prop Type	Dia (in)	Pitch (in)	RPM	Vpitch (mph)	Thrust (Oz)	Thrust Change	Approx Gear ratio
APC-TE	8.0	6.0	6848	39.1	13.8	-0.7	1.60
APC-SF	8.0	6.0	6527	37.3	14.4	0.0	1.68
GWS-HD	8.0	4.0	8725	33.2	13.9	-0.5	1.25

[Calculate](#)

[Help](#)

[About](#)

