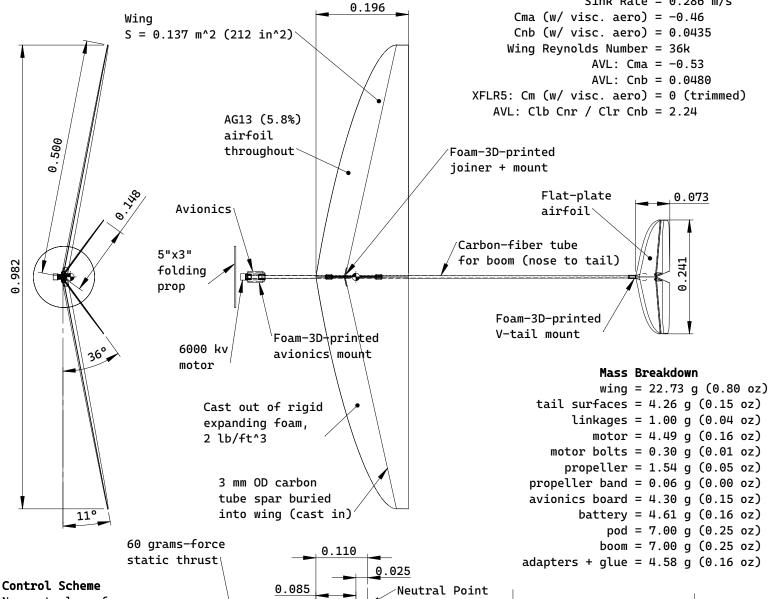
Feather Motor-Glider

Peter Sharpe

(design heavily inspired by Drela Apogee)

Dimensions in meters.

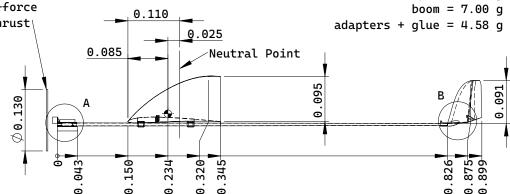


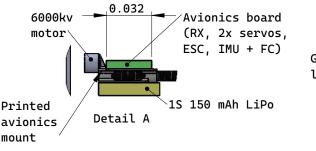
No control surfaces on wing (tail-only control). Tail surfaces are torsionsprung using 9 thou music wire, Z-bent and CA-glued in.

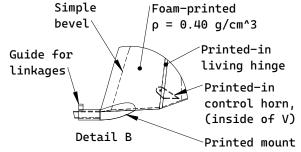
Spectra line linkages connect printed-in control horns up to 2x linear servos on avionics board.

Flight Dynamics

- Phugoid $\zeta = 0.23$
- Dutch roll
 - f = 0.76 Hz
 - $\zeta = 0.38$
- Spiral $\tau = 1.38 \text{ s}$ (stable)







Overall Properties All-up weight = 61.9 g (2.18 oz)

Cruise Airspeed = 3.53 m/s Cruise AoA = 5.08 deg

> Cruise CL = 0.58Sink Rate = 0.286 m/s

L/D (ideal piloting) = 12.4