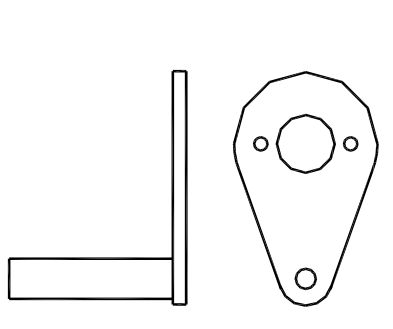
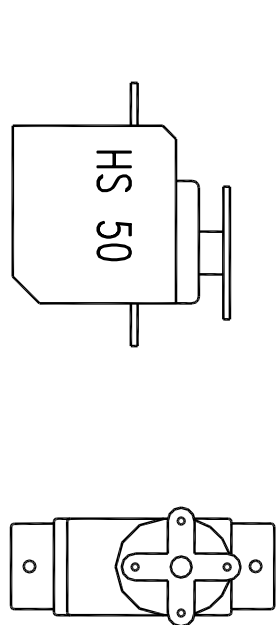


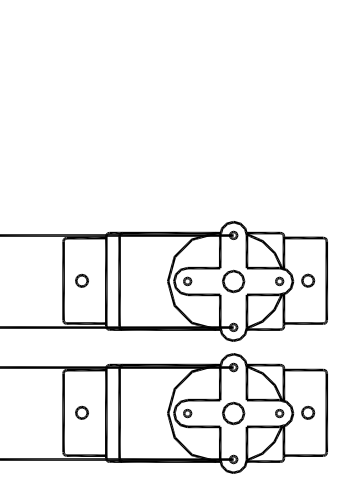
DC 1717 motor mount.  
 Make from 0.050 glass  
 sheet. Secure to short  
 length of dowel with small  
 screw. Epoxy in boom.  
 Thrust line is 0 Deg. Rt.  
 and 0 Deg. Down.



Cover center section of  
 wing with 1/32" Sheet  
 balsa. Top only. Leave  
 bottom of center section  
 uncovered for equipment  
 access.



Control Linkage



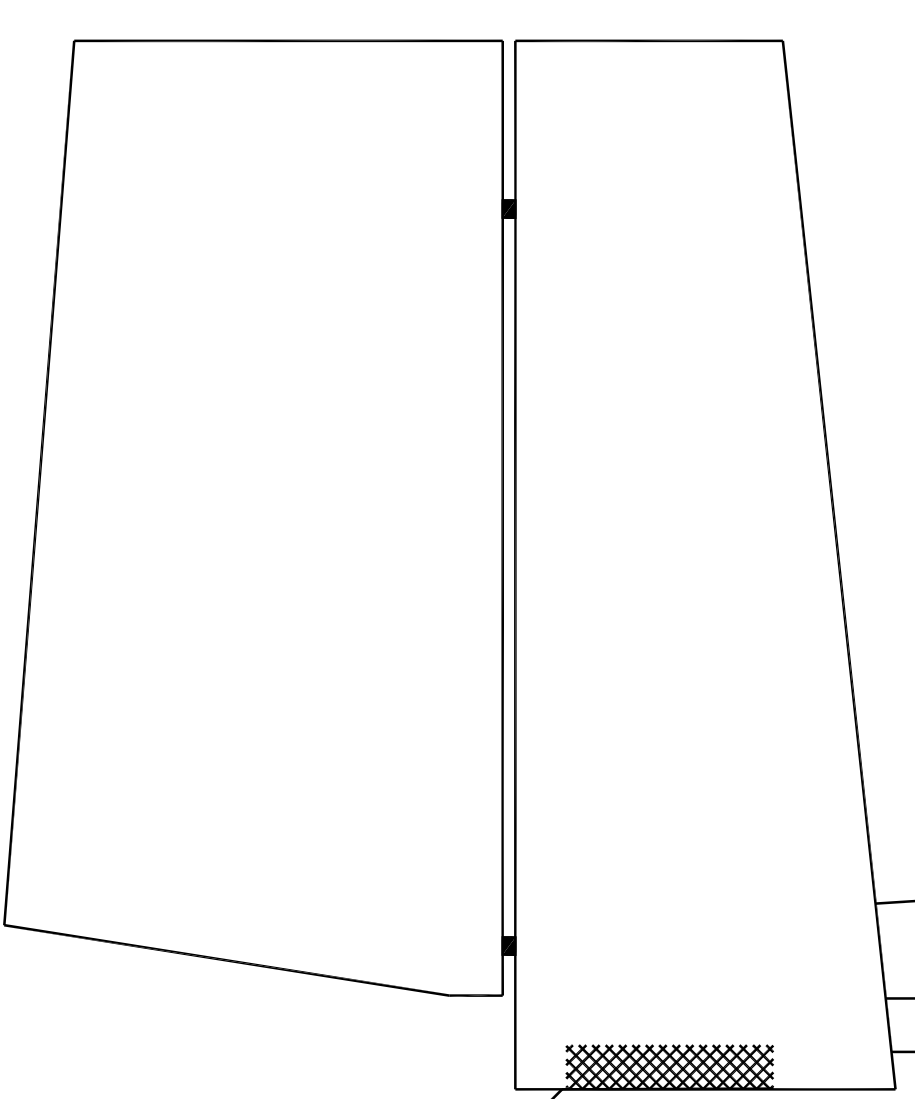
L. Ail. R. Ail.

L. Rdv. R. Rdv.

Control Throws:  $\pm 3/4"$   
 at tip of rudder and  
 $\pm 1/2"$  at tip of Flaperon.  
 Up and down elevator only  
 when measuring.

1/32" Ply.

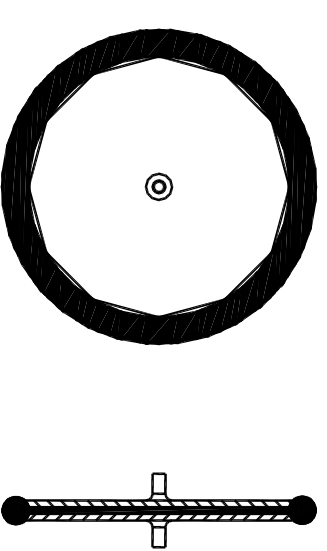
Servo Rail Control Rail  
 2 Req. 4 Req.



Lndg. Gear (true length): 0.080 Carbon rod. Bind to  
 fuselage tube at wing LE with CF Tow or thread and  
 CA.  
 Axle: 1/32" Dia. wire. Note small loop in wire at rod  
 end. Fasten to Carbon rod with heat shrink tubing and  
 CA.  
 Wheels: No. 1 Trexler Air Wheels shown.

L.E. 1/4 Sq.

Wheel option: Laminiate  
 1/32" balsa disks on  
 either side of a 1/32" ply  
 disk. Use 0 ring for file  
 if desired and epoxy  
 small Dia. Al. tube for a  
 bearing.



Sgors  
 1/8" x 1/8"  
 hard balsa

T.E. 1/4" Sq.

1/32" Center section covering  
 omitted for clarity. Extends  
 1/8" outboard of center ribs.  
 Cut opening for servo boy and  
 small holes at LE & TE for CF  
 Tow lashing. Run motor wires  
 through hole at LE.

Add 1/16" Sq. stiffeners to  
 center and tip ribs. Top  
 stiffeners not required on  
 center ribs.

Cut slots for  
 servo rolls in  
 center ribs

Bind Fuselage to  
 Lndg. Gear and  
 wing at LE & Wing to  
 fuselage at TE with CF  
 Tow or Thread.

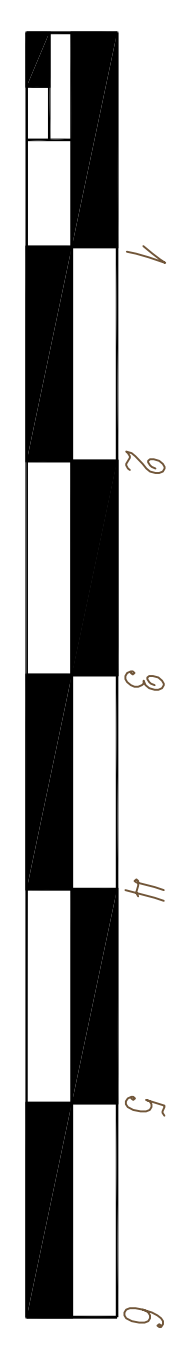
Add 1/16" x 1/8"  
 shear strips to all  
 ribs.

Main Rib, 8 Req.  
 4 with lightening holes  
 1/16" Sheet.

Sub Rib, 6 Req.  
 1/16" Sheet.

Note:  
 The conventional tail is better for  
 loops while the v-tail will turn  
 tighter. I like the conventional  
 tail better myself. Todd

For mixing rudder with  
 ailerons run a pushrod from  
 the left aileron to the left  
 side of the rudder.

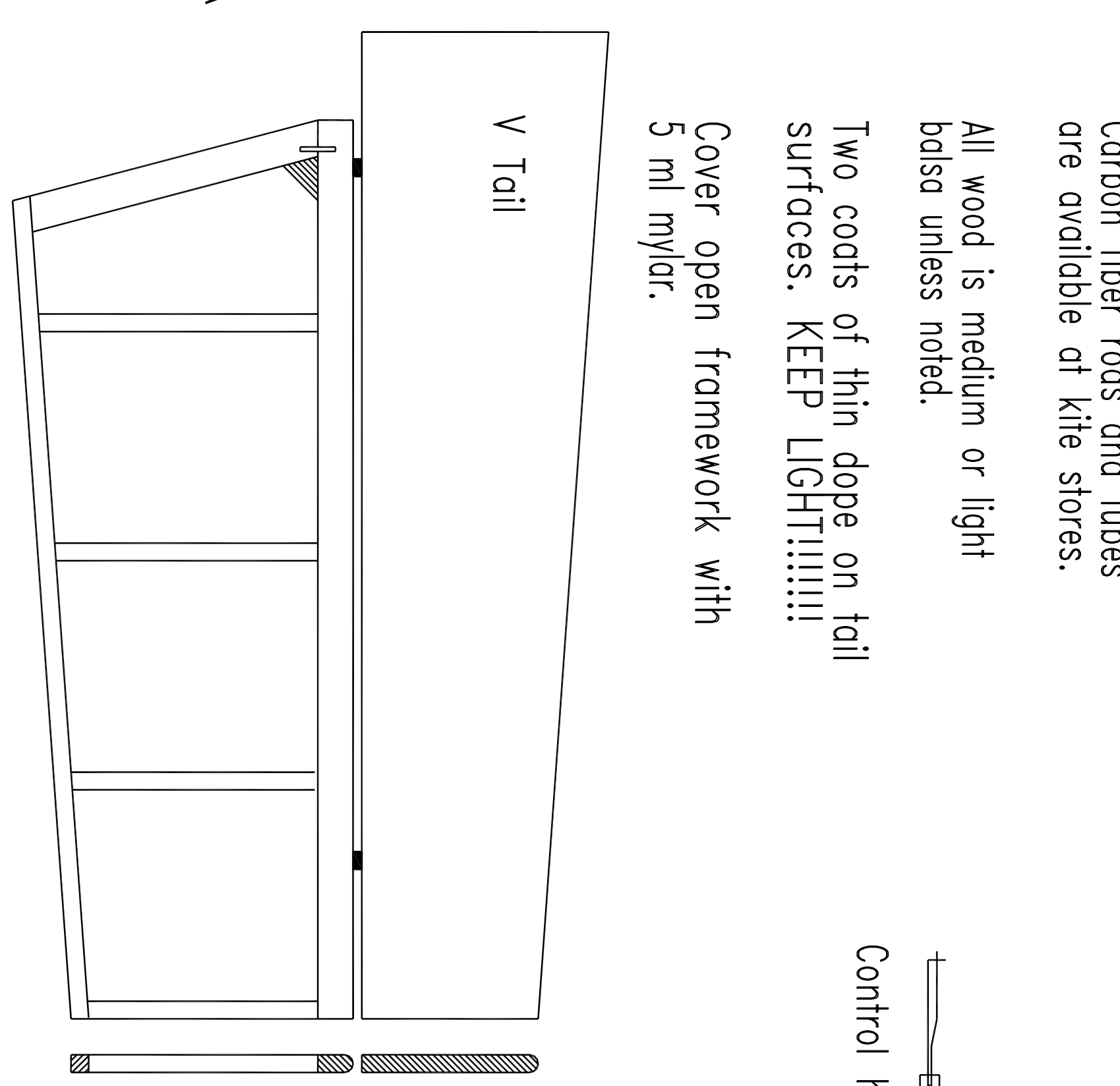
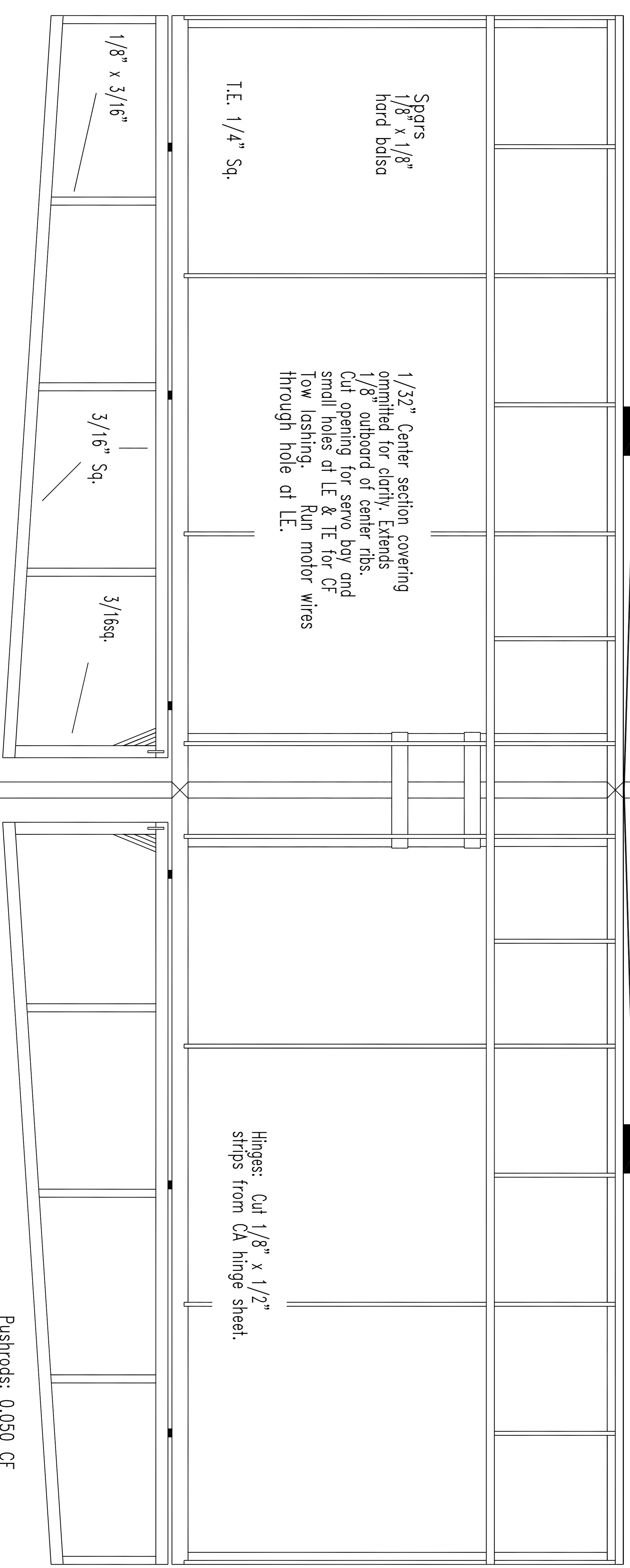
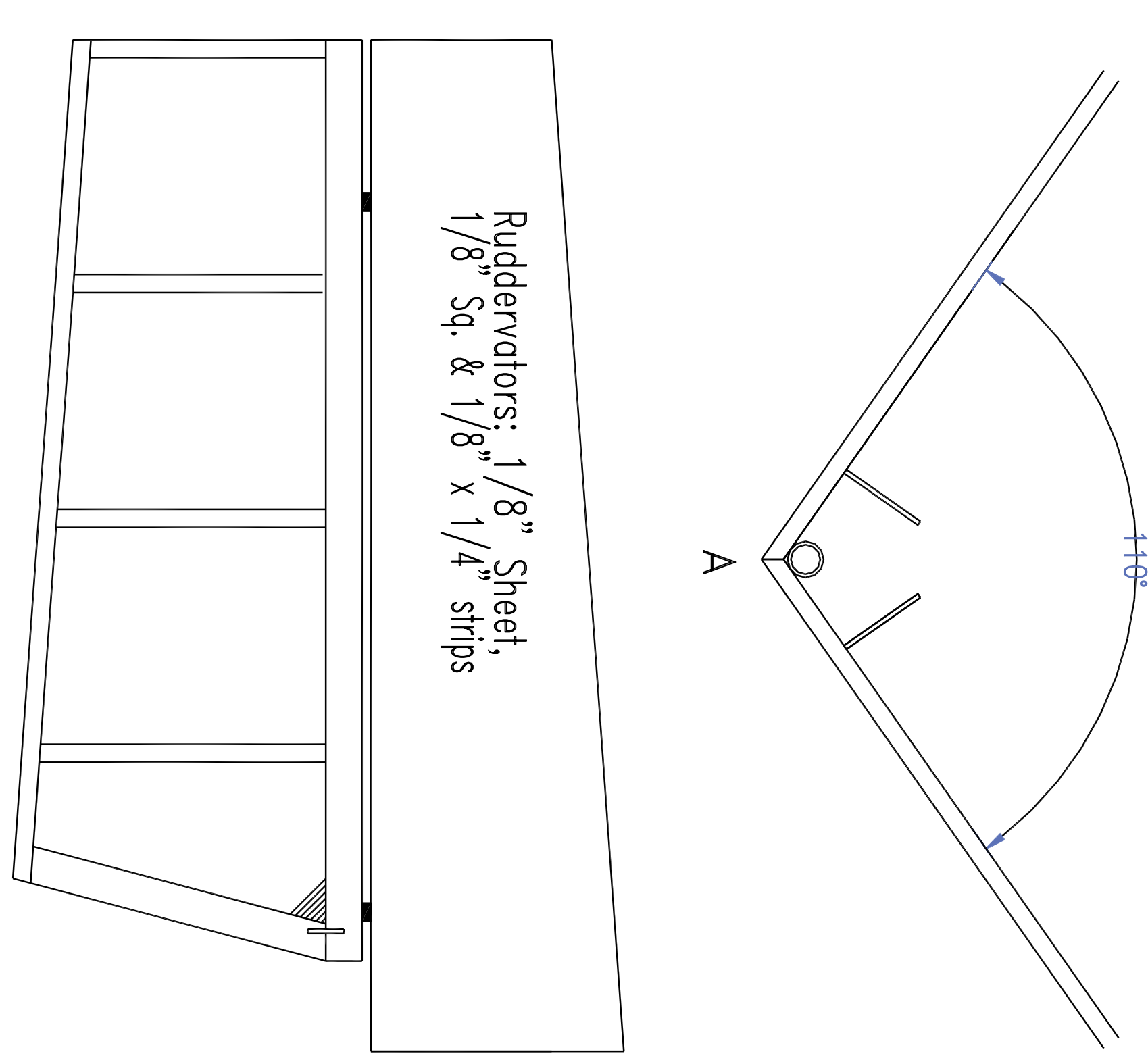


TINY

<http://www.toddmodels.com>

Design: Todd Long 1/1/99  
 Drawing: Todd Long & Chuck Clemens  
 Wing Span: Z4  
 Wing Area: 220 In. Sq.  
 Motor: 1717-1524 11.8:1 gear reduction  
 Weight: 4~5.5 ounces  
 Battery: 8~10 cell 50mAh  
 ESC: 4 amp type  
 Servos: 6 gram type  
 Rx: 14g or less  
 Prop: Braun Lightweight Carbon  
 Control Setup:  
 Flapperon Mix with V-Tail or  
 rudder coupled with ailerons and elevator

Rev: 11/1/99  
 Todd Long



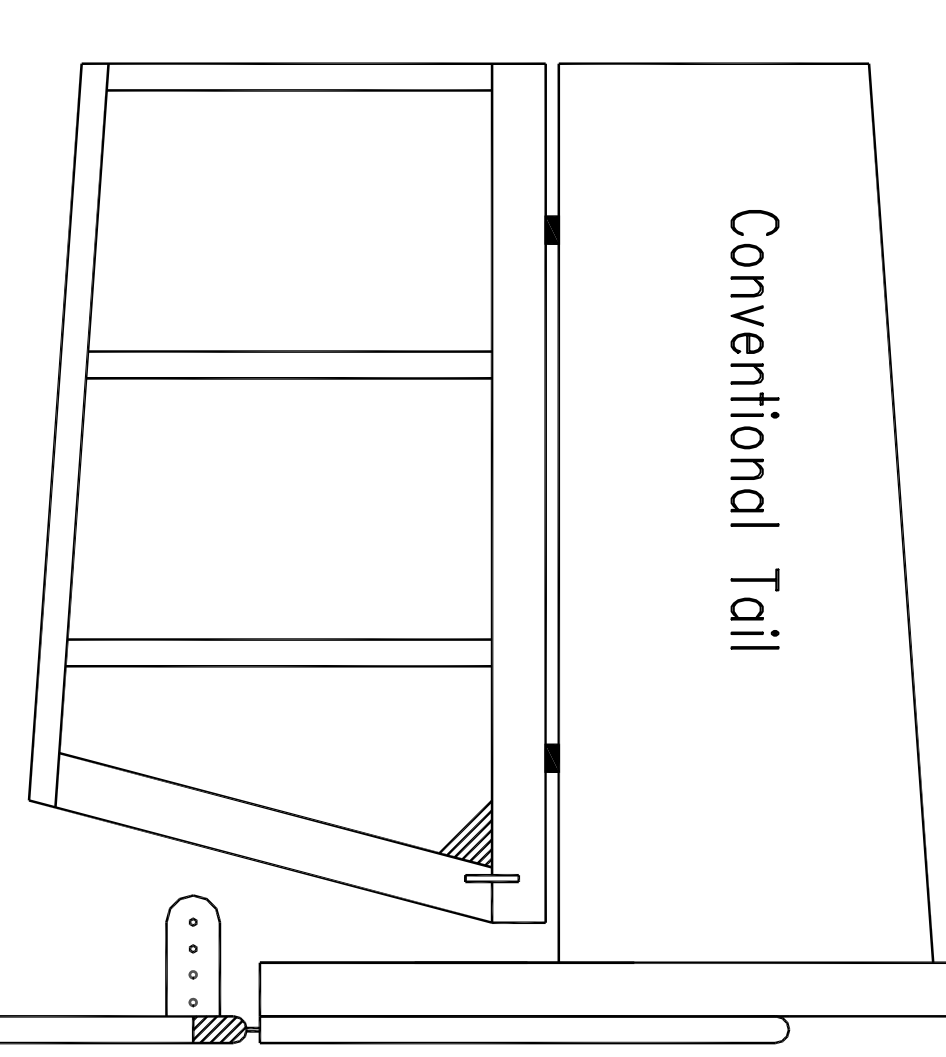
Fuselage: 1/4" Dia. CF tube.  
 Carbon fiber rods and tubes  
 are available at kite stores.  
 All wood is medium or light  
 balsa unless noted.  
 Two coats of thin dope on tail  
 surfaces. KEEP LIGHT!!!!!!  
 Cover open framework with  
 5 ml mylar.

Control horn end

Servo end

Pushrods: 0.050 CF  
 Assemble with heat  
 shrink tubing.  
 Adjust & apply CA.  
 no scale

Make hinges from thin  
 CA hinge material.



Conventional Tail

