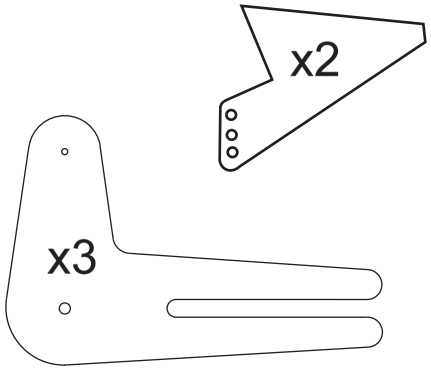
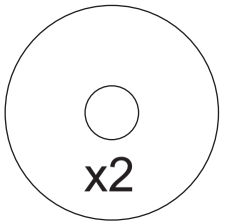
6 AC grade
ywood





patterns

1/8 light plywood make 2 sets

patterns 1/8 light plywood make 2 sets

Tip

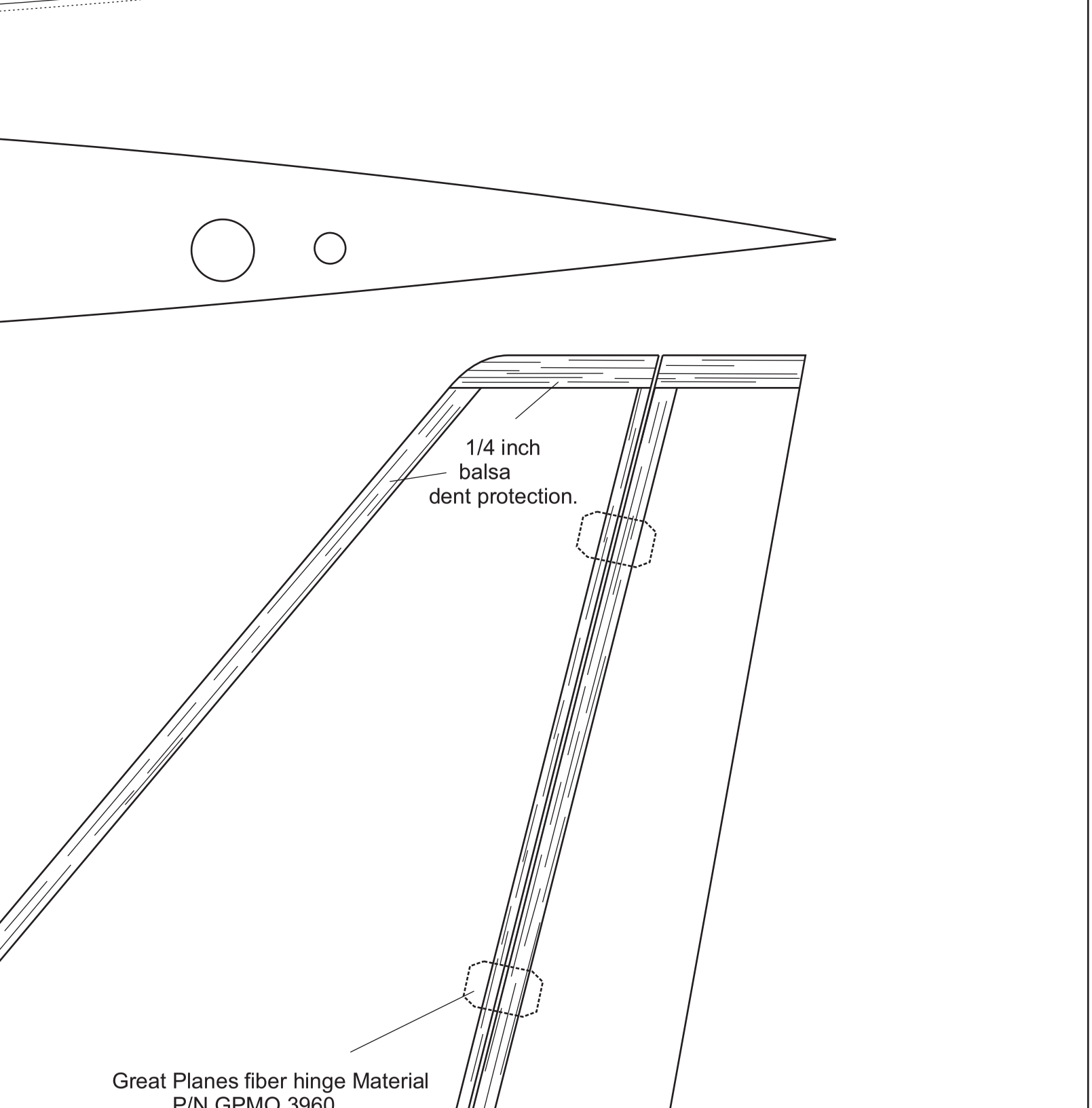
Root

sanding patterns 1/8 light plywood

Tip

Root

Wing tip Foam core Hot wire cut pattern

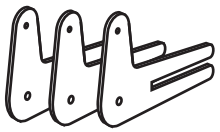

1/4 inch
balsa
dent protection.
Great Planes fiber hinge Material
P/N GPMQ 3960

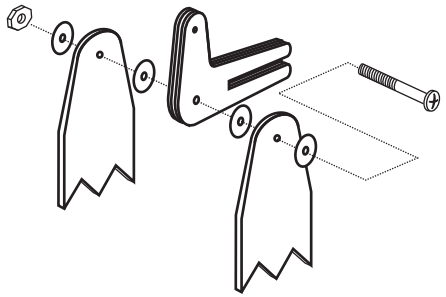
Great Planes fiber hinge Material
P/N GPMQ 3960

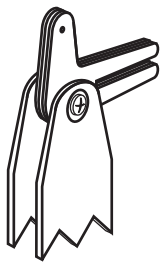
3/32 balsa

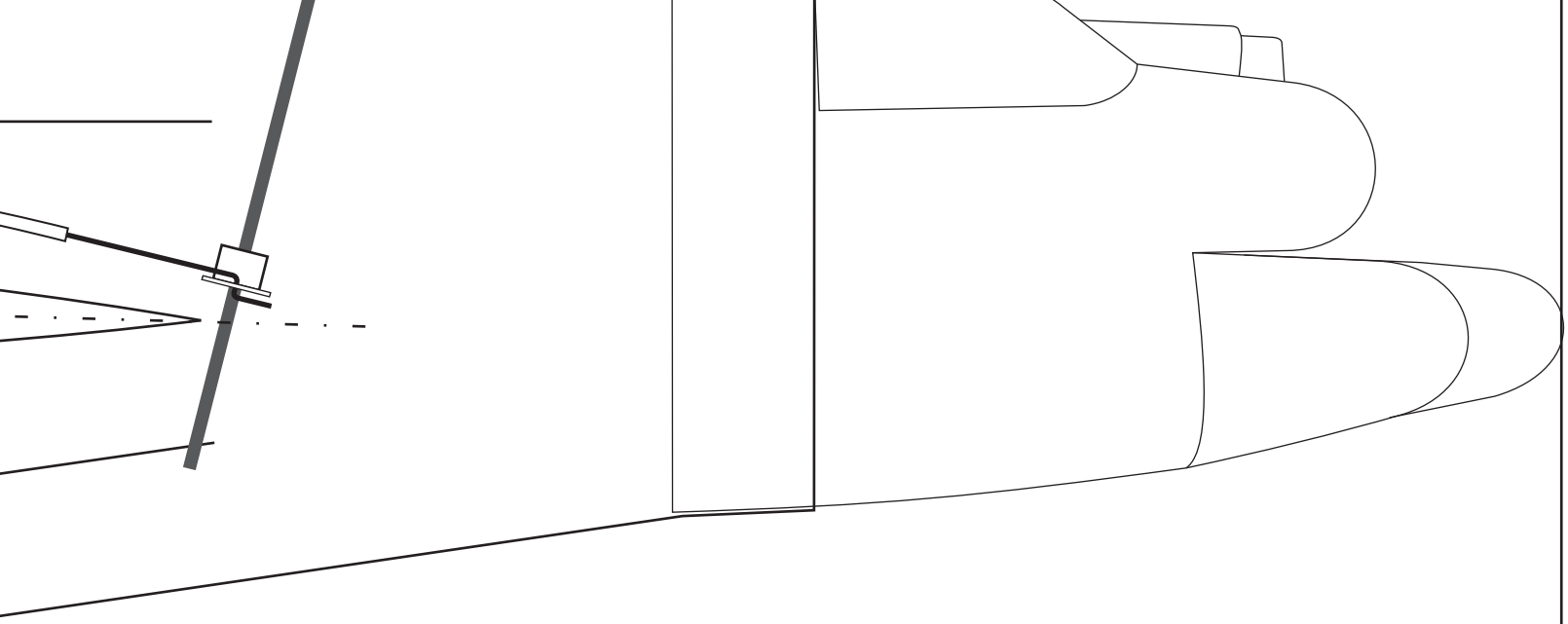
3/16 balsa

2 steel torque rod
K&S P/N 506









B-52 Stratobomber

Designed and drawn by Keith Sparks

Model type Electric powered , Radio controlled

Specs.

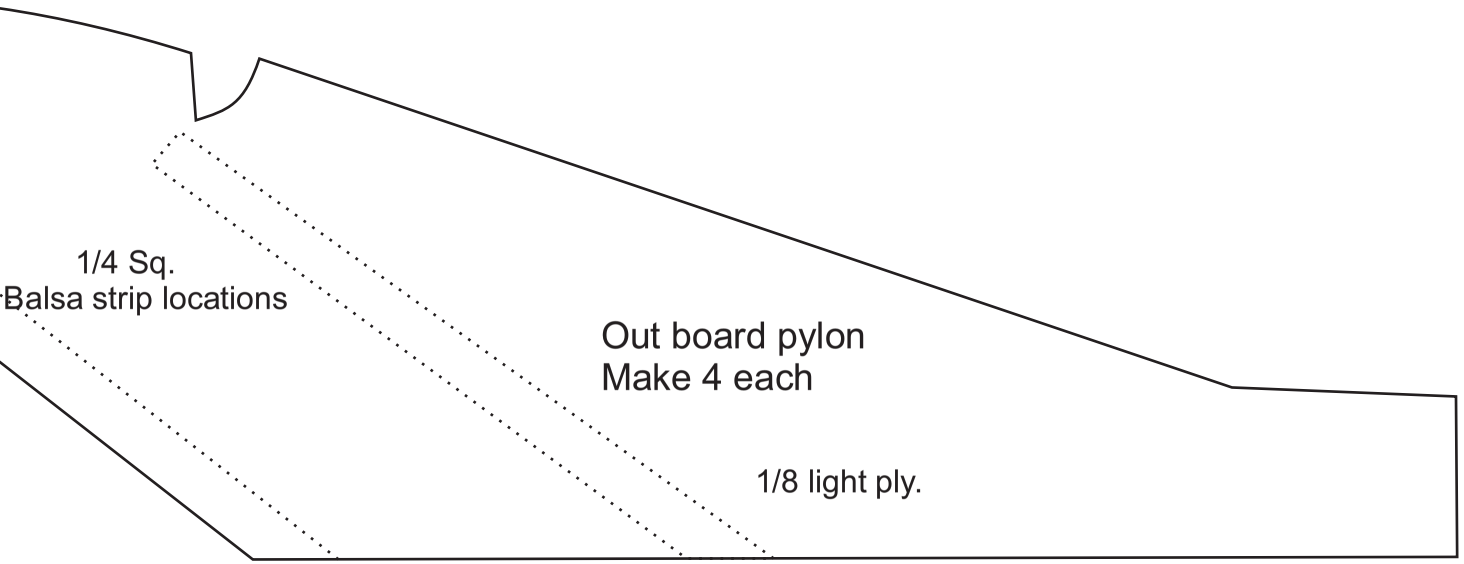
Span..... 82” length..... 72”

weight ..8 Lbs. wing area... 787 Sq. in.

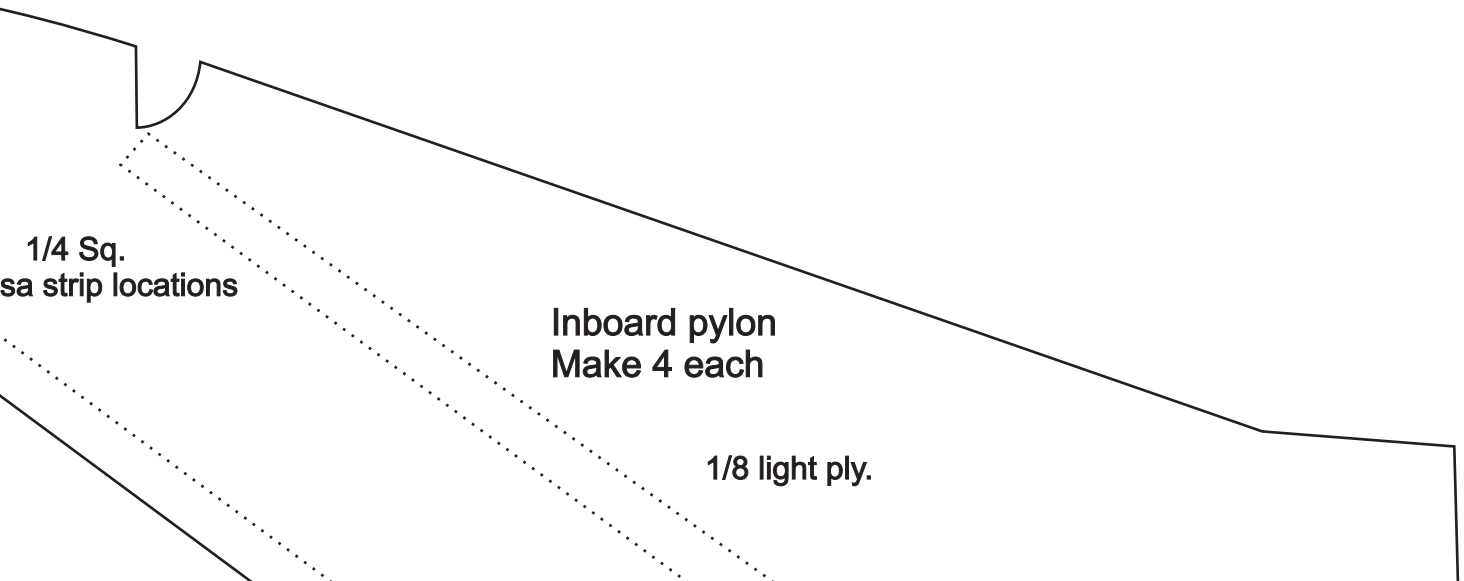
Construction type

Extruded foam wood composite

Sheet

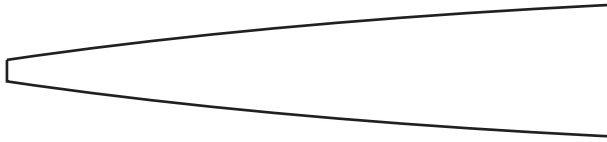


1/16 A
plyw

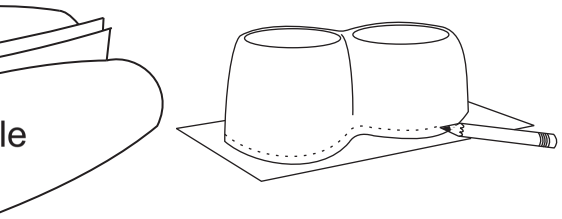


Horizontal stabilizer sanding pa

Horizontal stabilizer sanding pa

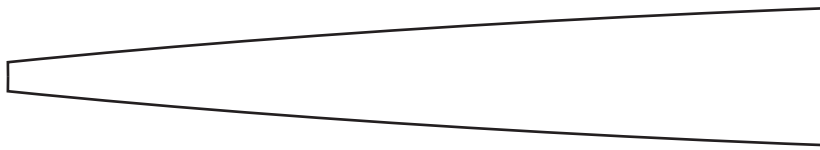


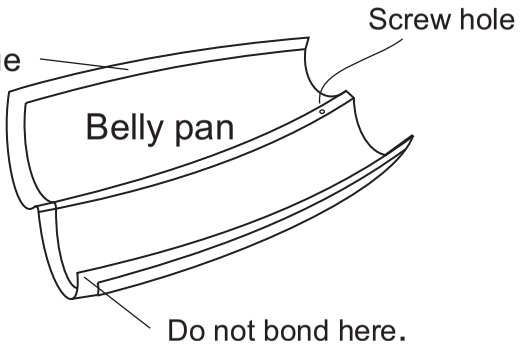
Nacell assembly

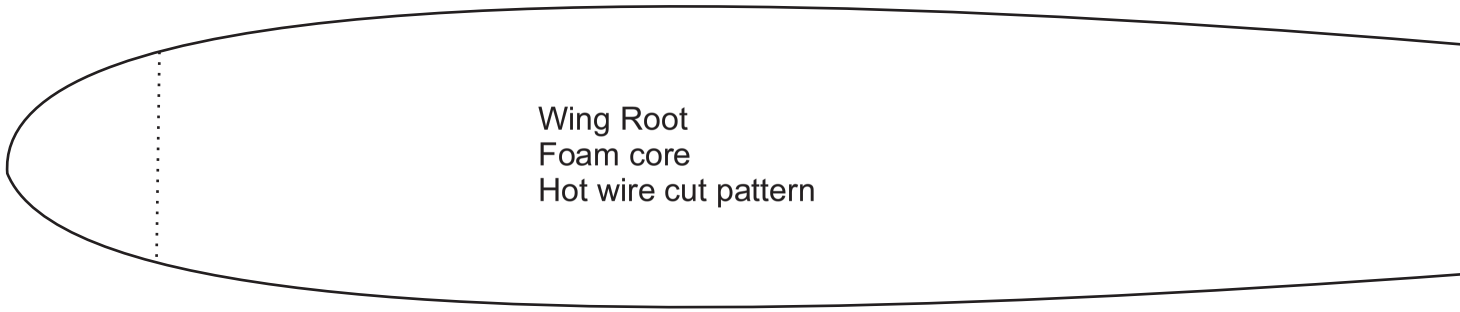


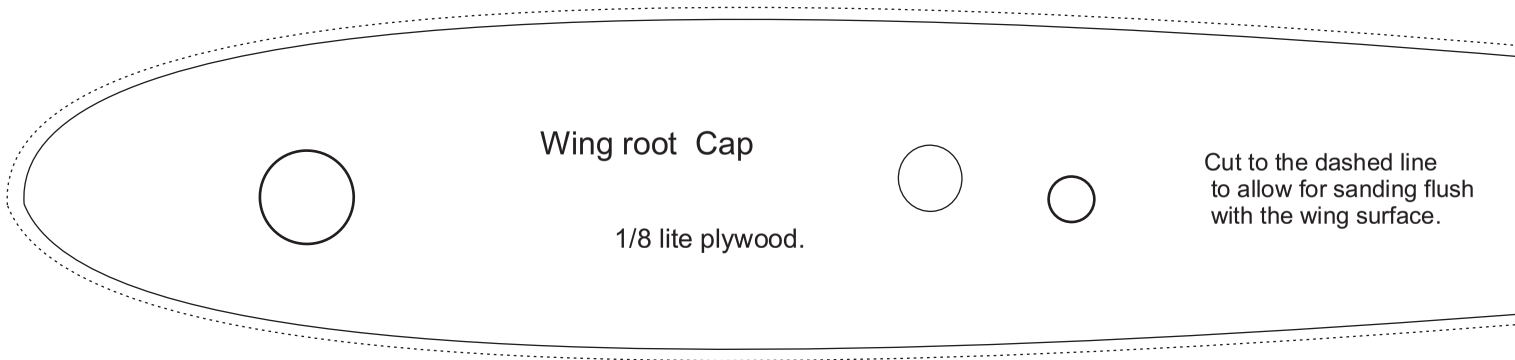
Trim the Nacelle and belly pan leaving the flanges in place. Trim the inlet by laying a pencil and the inlet on the work surface and draw a line to trim to. Bond the inlet and belly pan together with plastic cement but not in the upper corner. Slide the inlet into the fan units to position the nacelle on the pylon. Mark the position and epoxy the nacelle in place. Small screws are used to hold the rest in place. They go thru the top of the inlet in the center and pass thru the nacelle into the pylon. The aft screw passes thru the belly pan into the nacelle. note: plywood blocks will needed to be added to the pylon as needed.

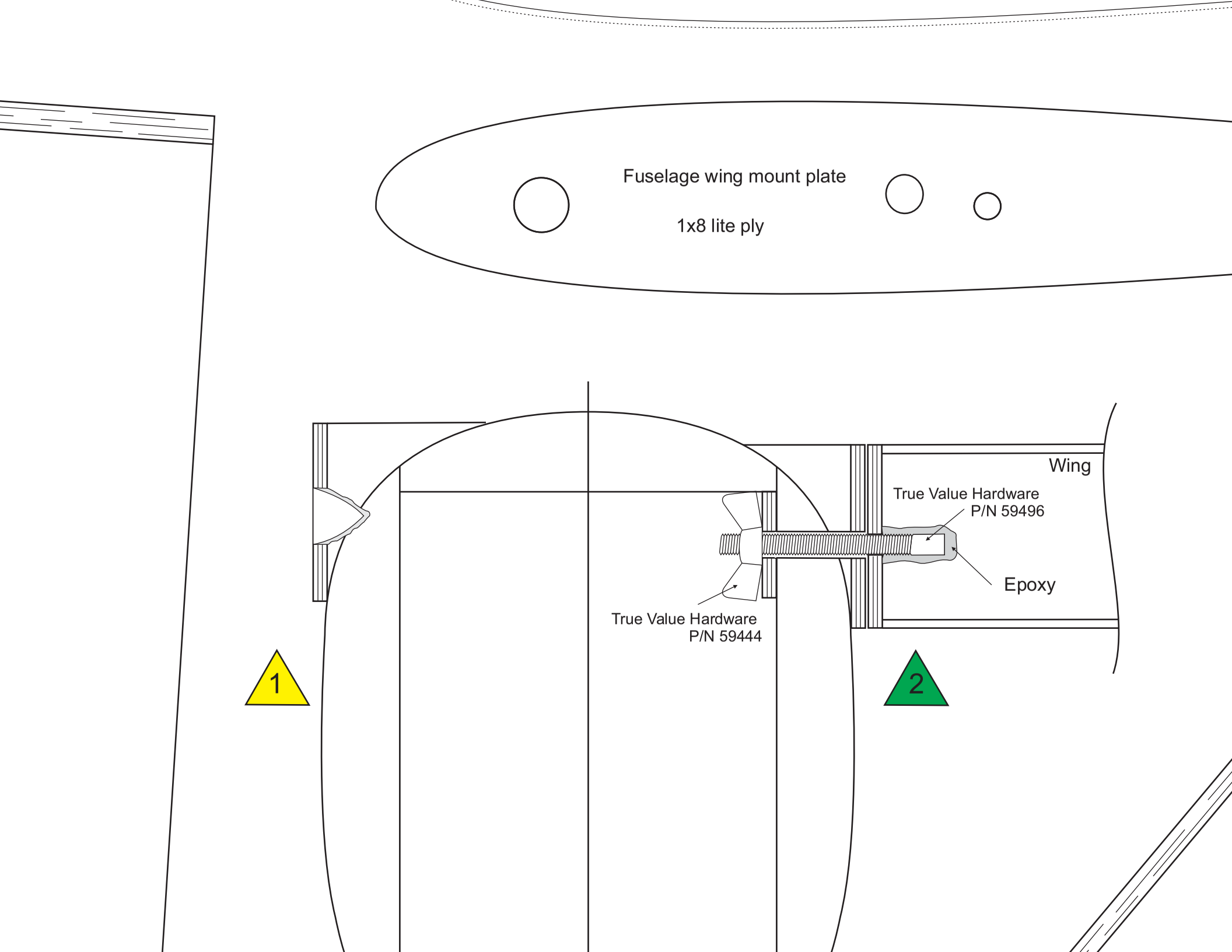
Vertical Stabilizer sar

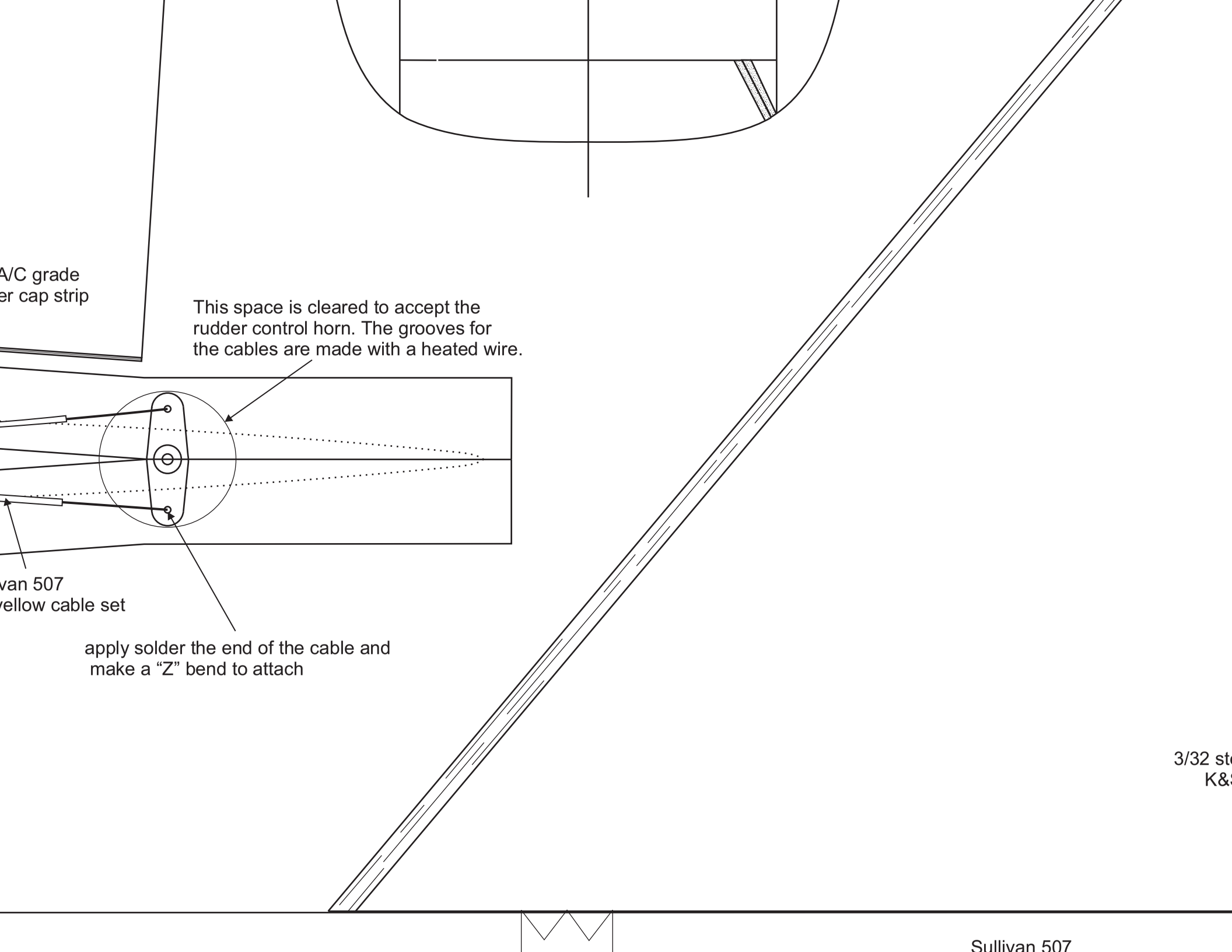


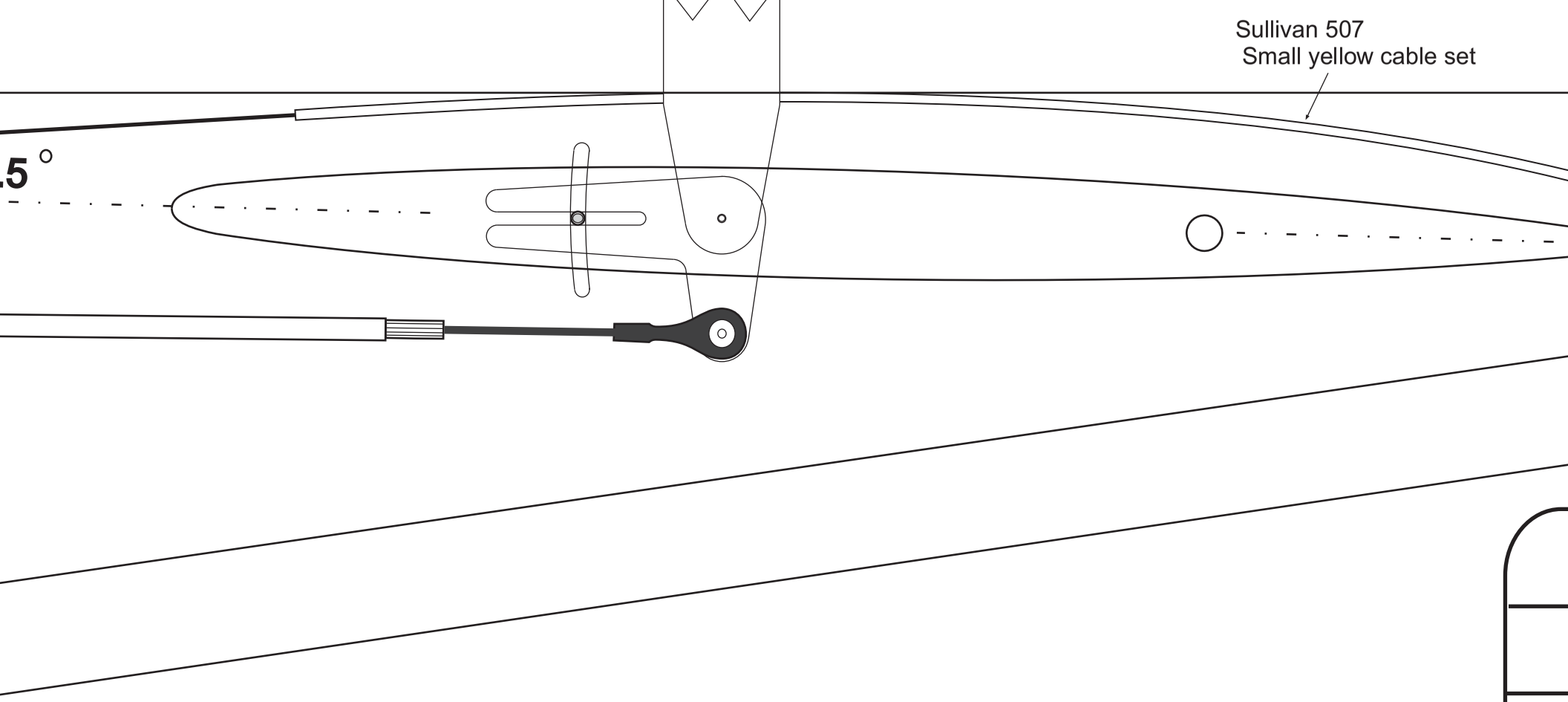







Fuselage wing mount plate
1x8 lite ply
Wing
True Value Hardware
P/N 59496
Epoxy
True Value Hardware
P/N 59444
1
2


A/C grade
er cap strip
This space is cleared to accept the
rudder control horn. The grooves for
the cables are made with a heated wire.
van 507
ellow cable set
apply solder the end of the cable and
make a “Z” bend to attach
3/32 st
K&
Sullivan 507



ontrol horn

1/16 Brass plate

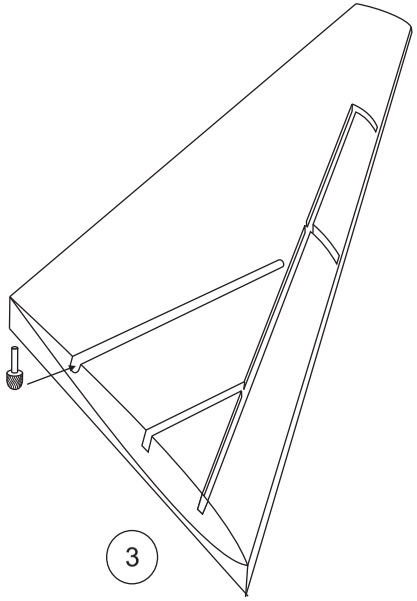
1/16 holes

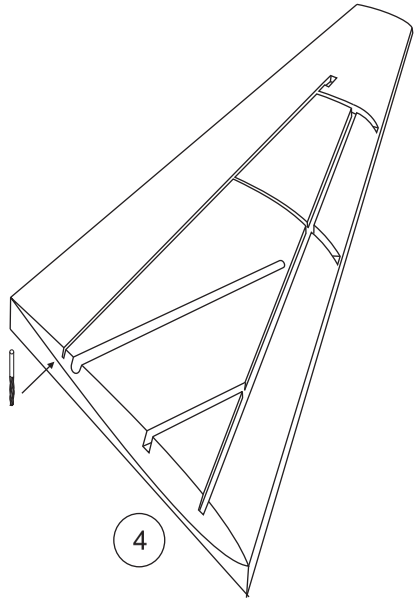
collet to the bras plate and drill

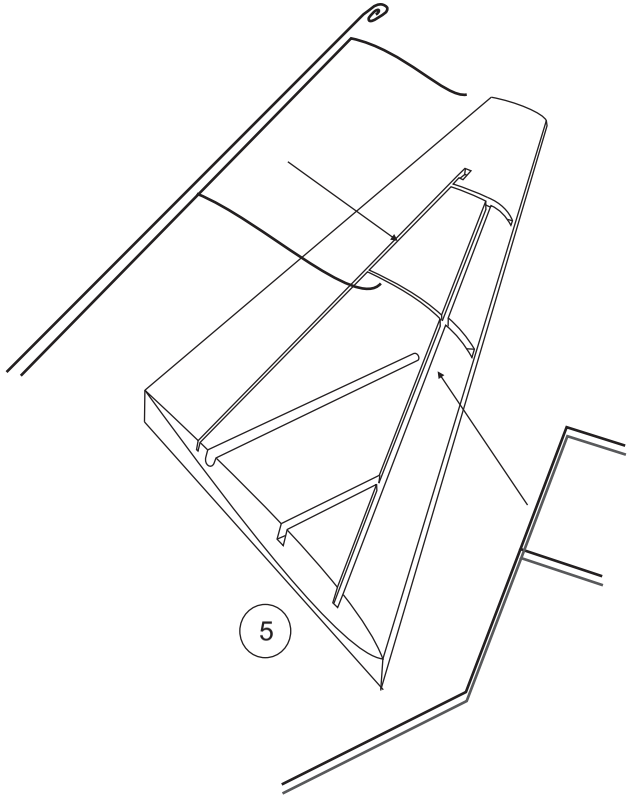
Mo

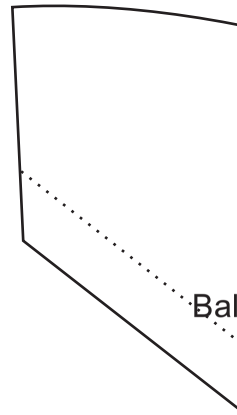
Sp

Con









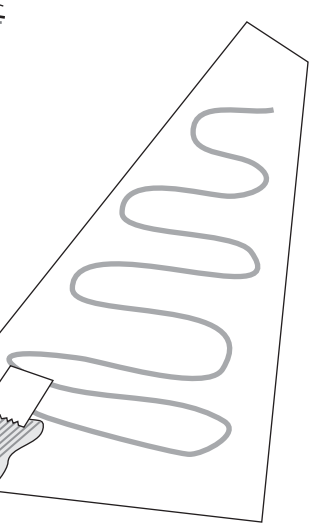
s wing beds. Lightly block sand the panels while they rest in the bed to hold it true to the cut.
ot mandatory.
ng root cap. There are many ways to cut a channel in foam, rotary files and a drill press will

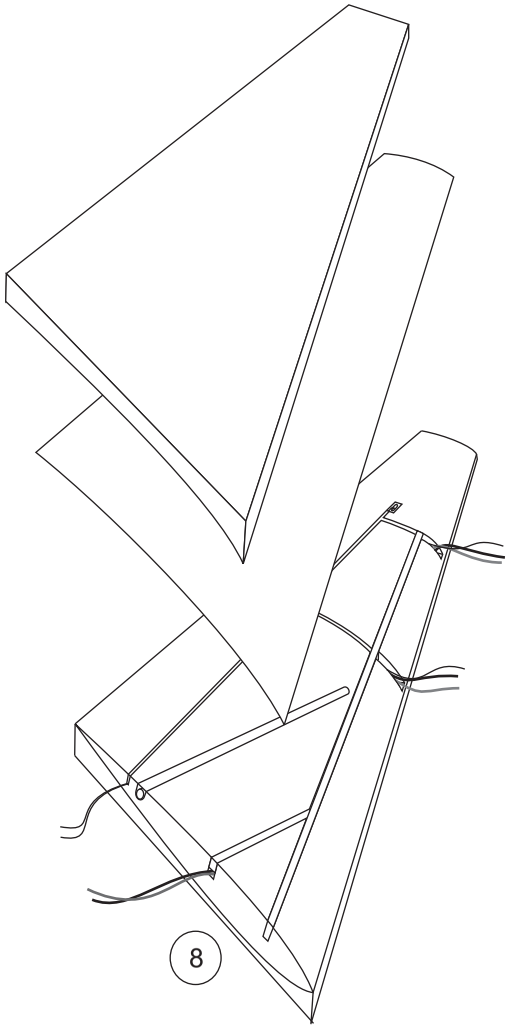
square bottom. Use the bed to maintain a constant depth.
a round tip. Wrap the spar tube with sandpaper and adjust the channel for a good fit.
hannel is cut with a rotary tool. Note the compartment used to store wire where the aileron servo

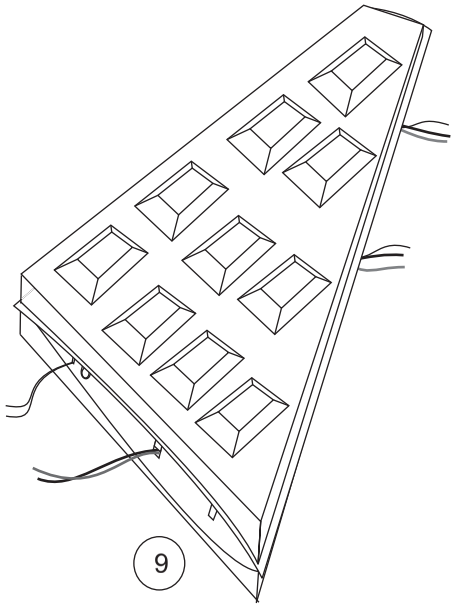
th the necessary splices and keep in mind that you need the wires to extend 5 inches beyond
fuselage.
pper edge of the channel and push the wood spar into the channel trapping the wire in place.

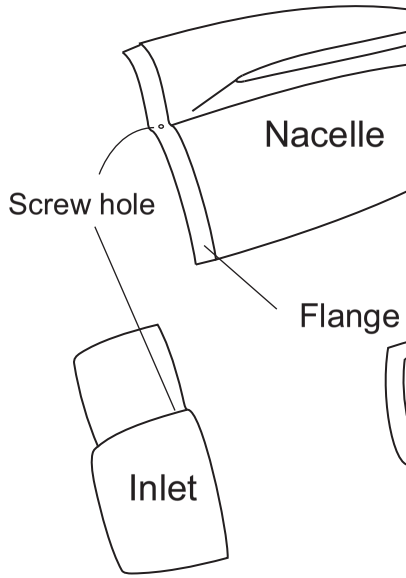
fuselage.
pper edge of the channel and push the wood spar into the channel trapping the wire in place.
l not go all the way into the wing at the outboard tip. This material can be marked and cut away

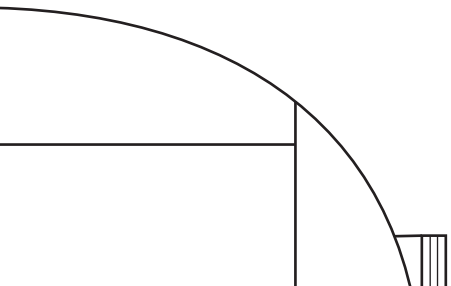
panel smooth.
panel. Dampen the wing core with water to help the glue expand. Apply Gorillia glue evenly to the foam panel.
panel and use the wing bed to make it conform to the curved shape.
peat step 7 to the other side after it drys completely.











needed to
and launching
rt a screw that would
magnets are not used.

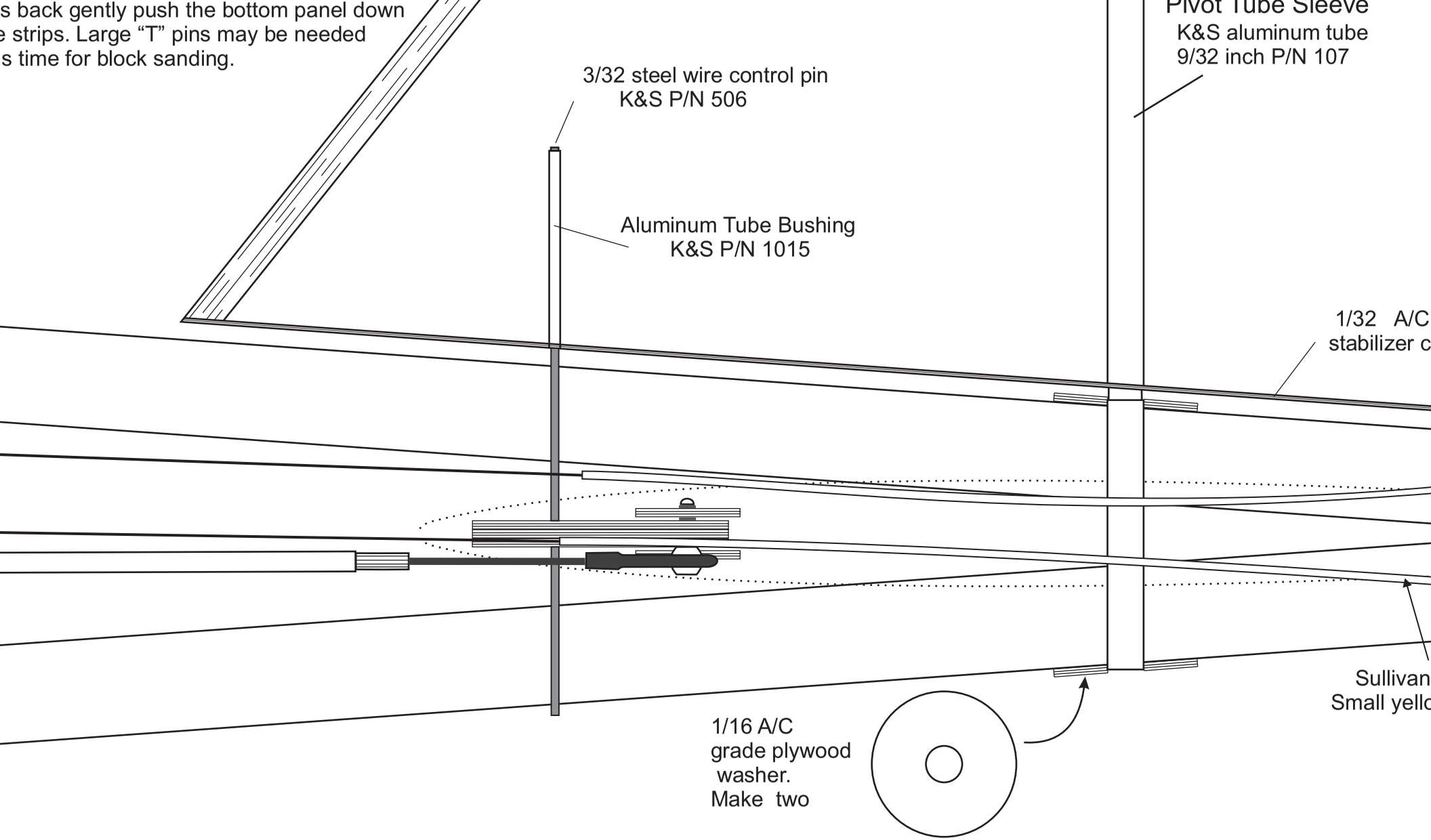
liner
balsa

1/4 inch balsa
dent protection.

Pivot tube
K&S Brass tube
1/4 inch P/N 131

Pivot Tube Sleeve

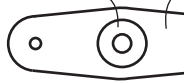
a 3/4 inch thick foam board.
are identical.
e of the side panels.
e the panels are 90 degrees to each other.
op and bottom panel.
t in place with tape; it will be removed later.
ard where the gap is very narrow first then
s back gently push the bottom panel down


s back gently push the bottom panel down
e strips. Large “T” pins may be needed
s time for block sanding.
3/32 steel wire control pin
K&S P/N 506
Pivot Tube Sleeve
K&S aluminum tube
9/32 inch P/N 107
Aluminum Tube Bushing
K&S P/N 1015
1/32 A/C
stabilizer c
Sullivan
Small yello
1/16 A/C
grade plywood
washer.
Make two

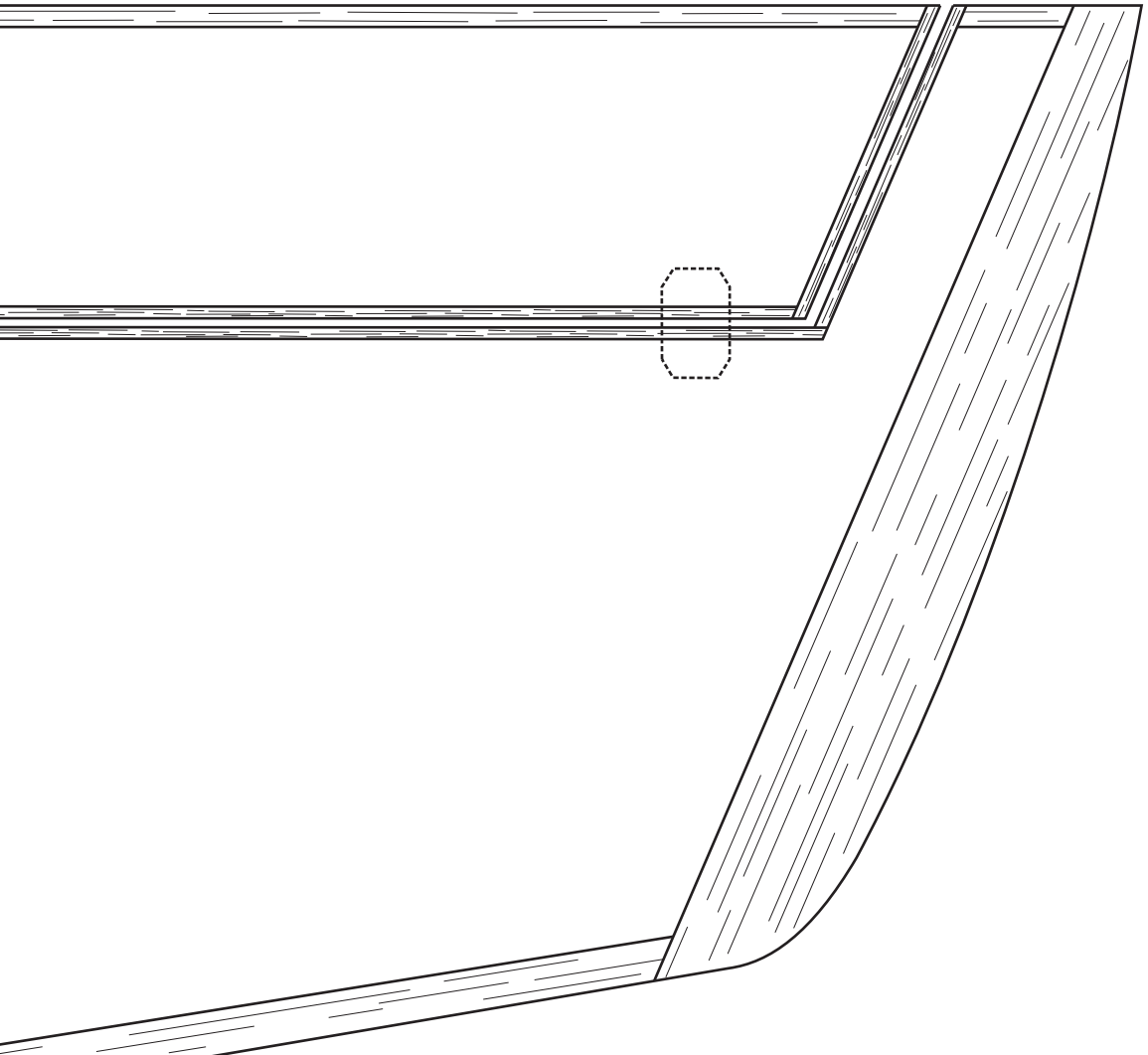
1.5

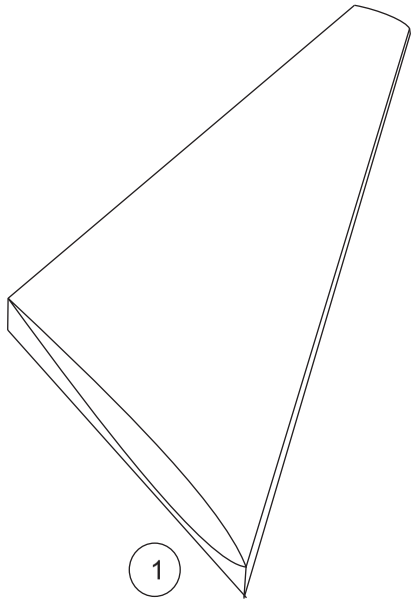
Rudder Cont

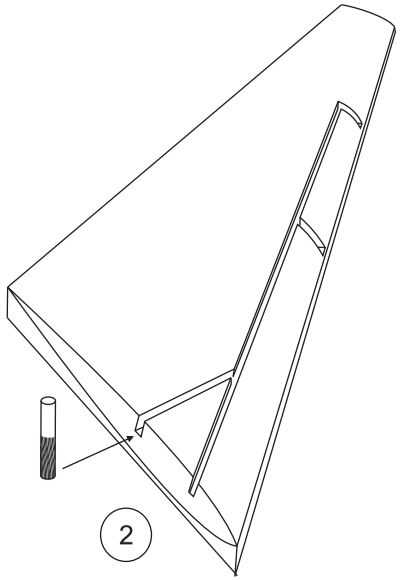
Dubro P/N 138



Solder a 3/32 wheel coll



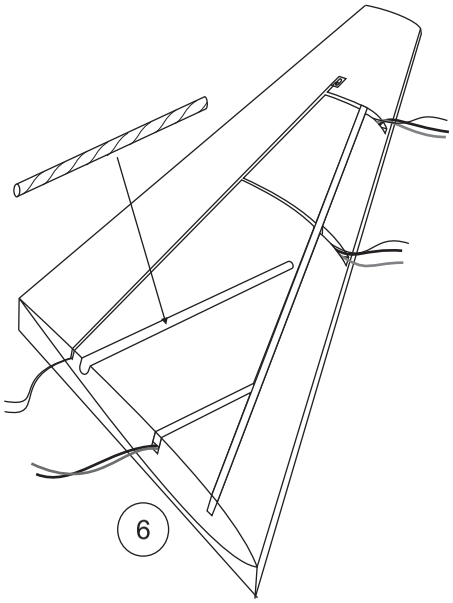


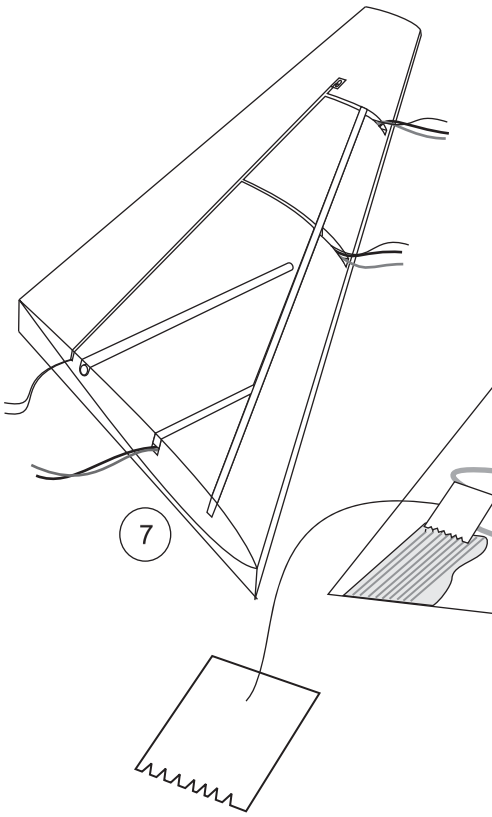


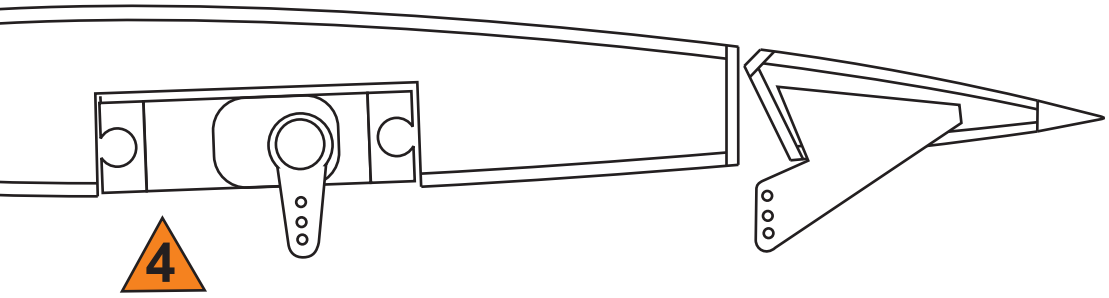
Wing assembly

1. Hot wire cut the wing panels and keep the scrap known as wi
this is to remove any wire cut high points, totally smooth is not n
2. Transfer the channel locations using the plans and the wing r
produce the most accurate channels.
for the power channels use a 1/4 inch wide rotary file with a squ
3. For the wing spar tube use a rotary file 1/2 inch wide with a ro
4. the servo wires will use a smaller channel 1/8 inch, This chan
will eventually be.
5. The wire harnesses are next. Use the channels to help with th
the leading edge and 6 inches where the wires will enter the fus
6. With the wiring in place in the channel apply glue to the upper

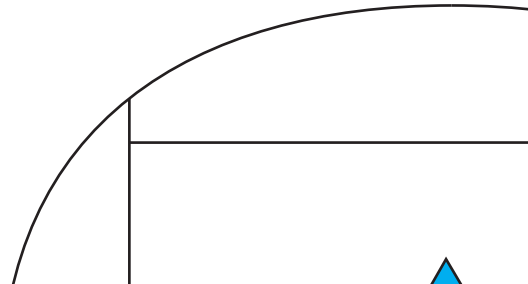
the leading edge and 6 inches where the wires will enter the fus
6. With the wiring in place in the channel apply glue to the upper
Note that this is a tapered spar. This means that the spar will no
before installation or sanded away after.
use scrap foam to fill the other channels and sand the wing pane
7.Cut a 2 to 3mm extruded foam sheet the size of the wing pane
8. Place the extruded panel on the beaded foam core wing pane
9. Align the wing core with both beds and apply weights ; repeat

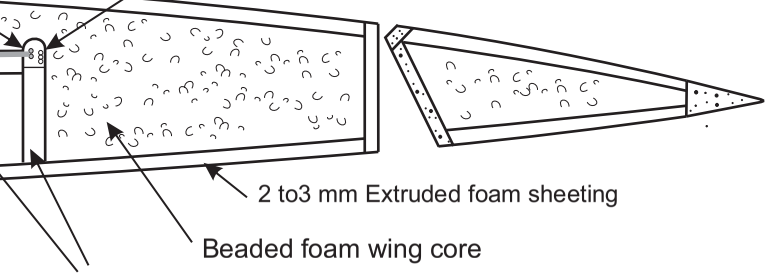


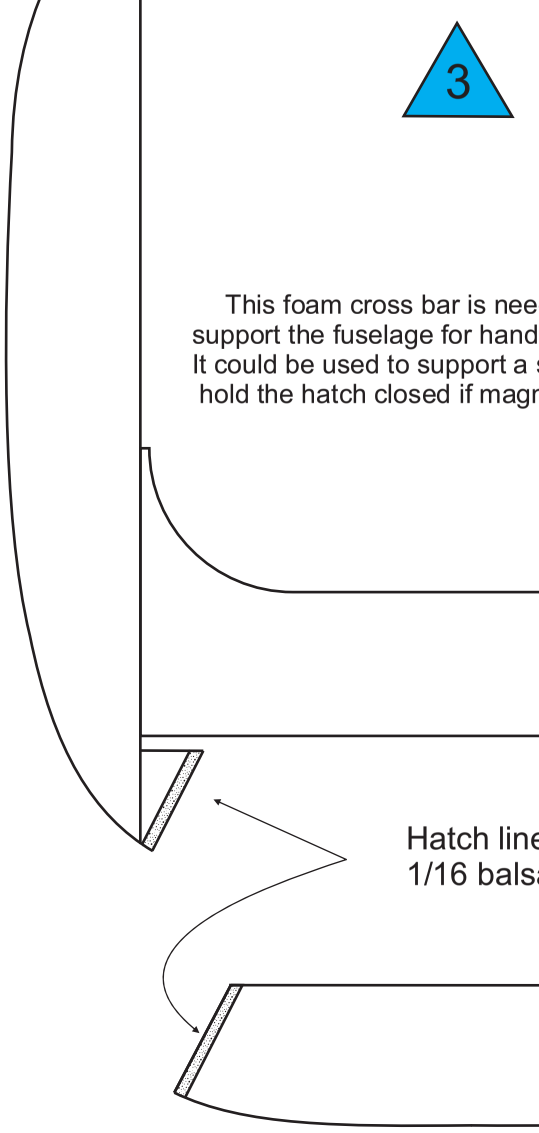


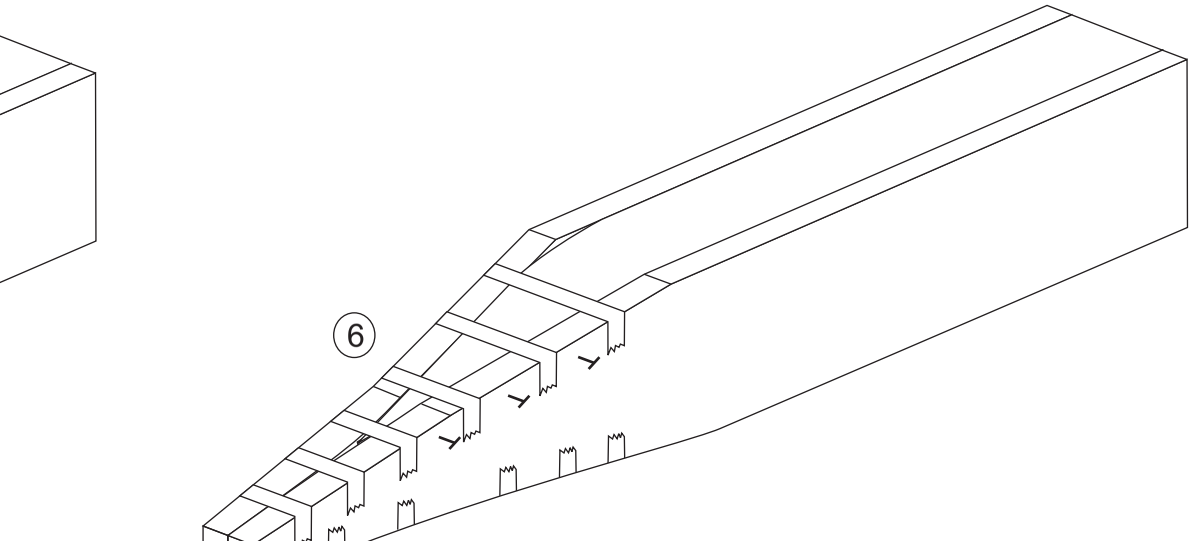


g Aileron servo wires



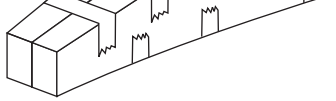






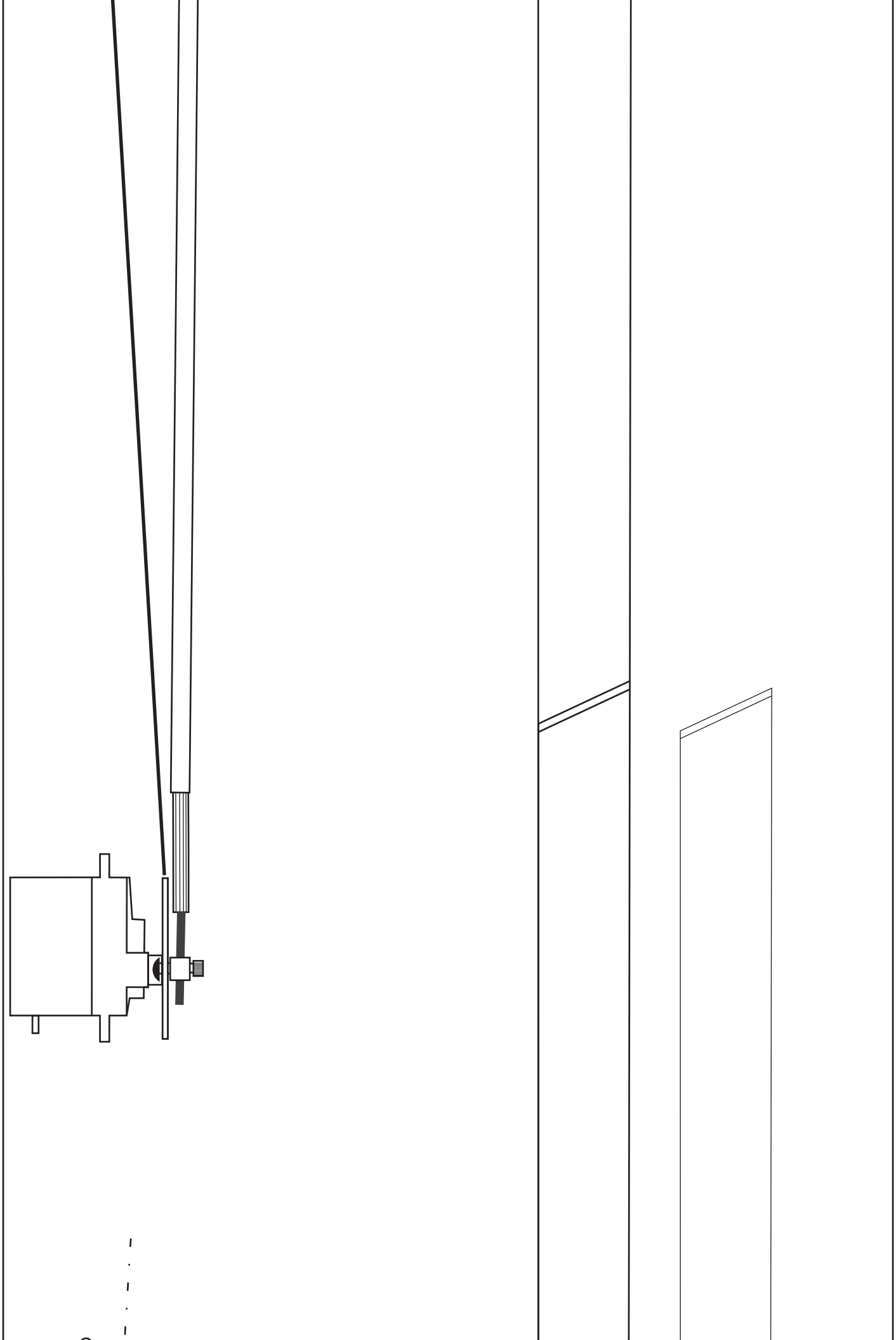
Fuselage assembly.

1. Use the top and side view to cut two panels of each from a 3
If you can, cut the panels at the same time to ensure they are i
3 Bond the top and bottom panels to the inside edge of one of
I used Gorilla glue and weights for clamp pressure. be sure the
4 Cut a scrap foam block equal to the space between the top a
Place it inside the fuselage where it will start to taper. hod it in
5. Apply Gorillia glue to the fuselage sides with a playing card
apply it to the rest of the bond joint. With the fuselage on its ba

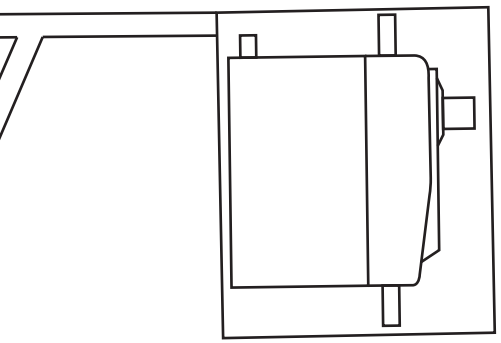


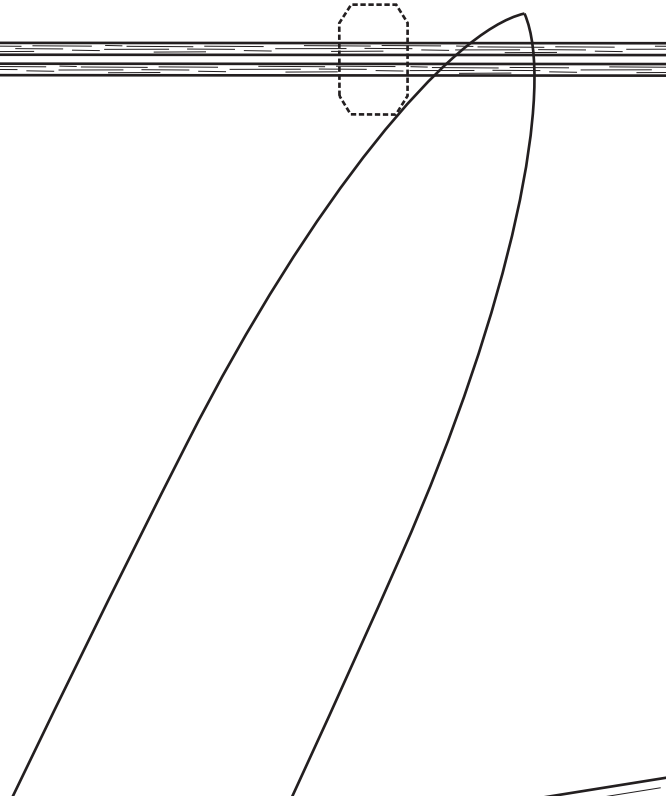
apply it to the rest of the bond joint. With the fuselage on its ba
at the point and press the sides against it as you apply tape str
to help the tape hold. After the nose sections are added it is ti

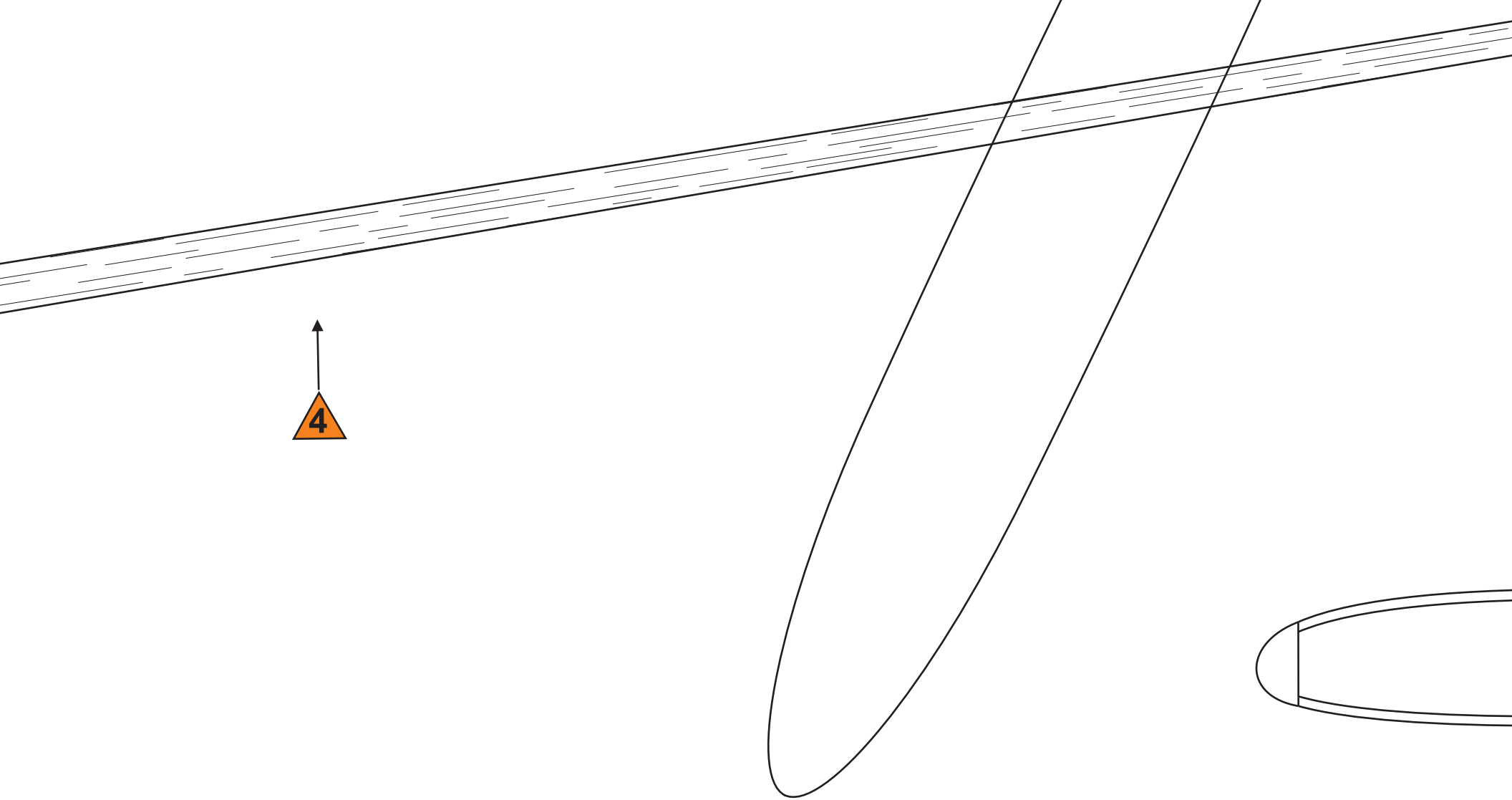
Sullivan Gold-in-rod P/N 504



Great Planes fiber hinge Material
P/N GPMQ 3960



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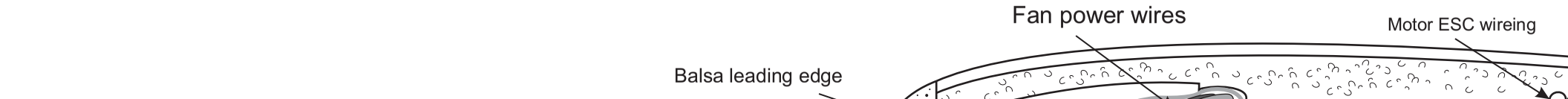
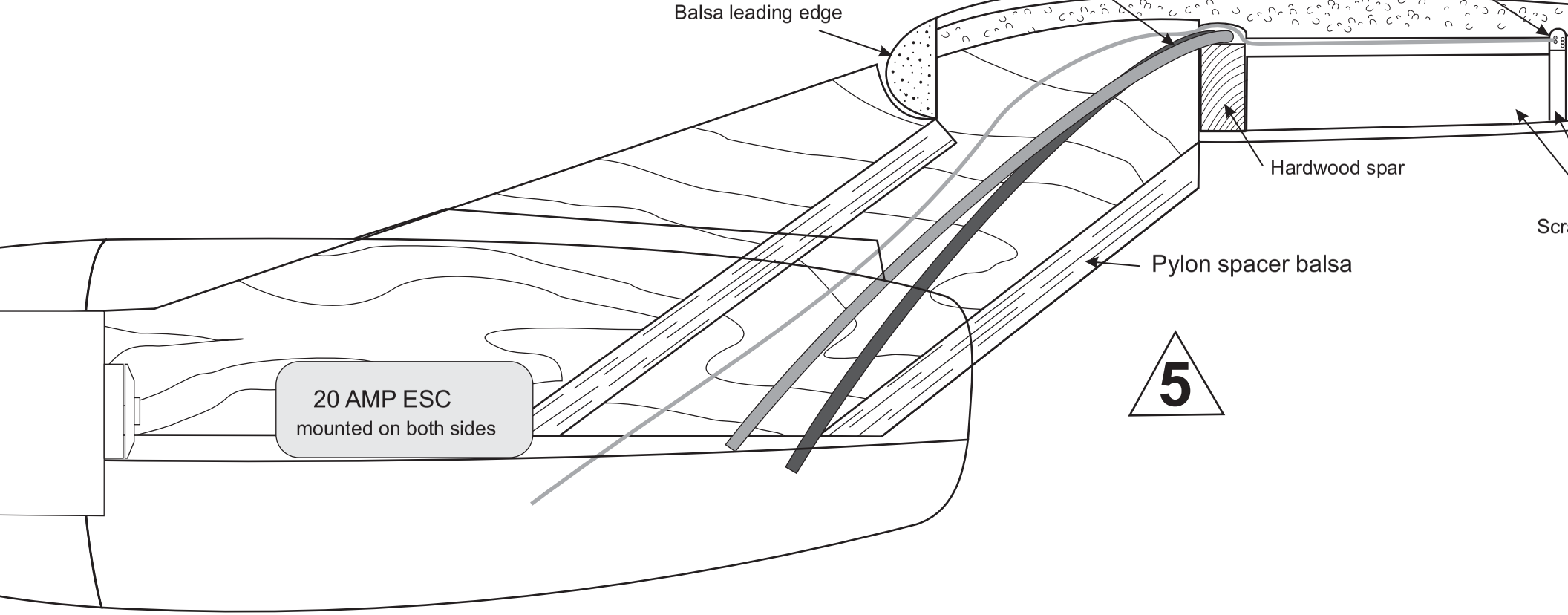
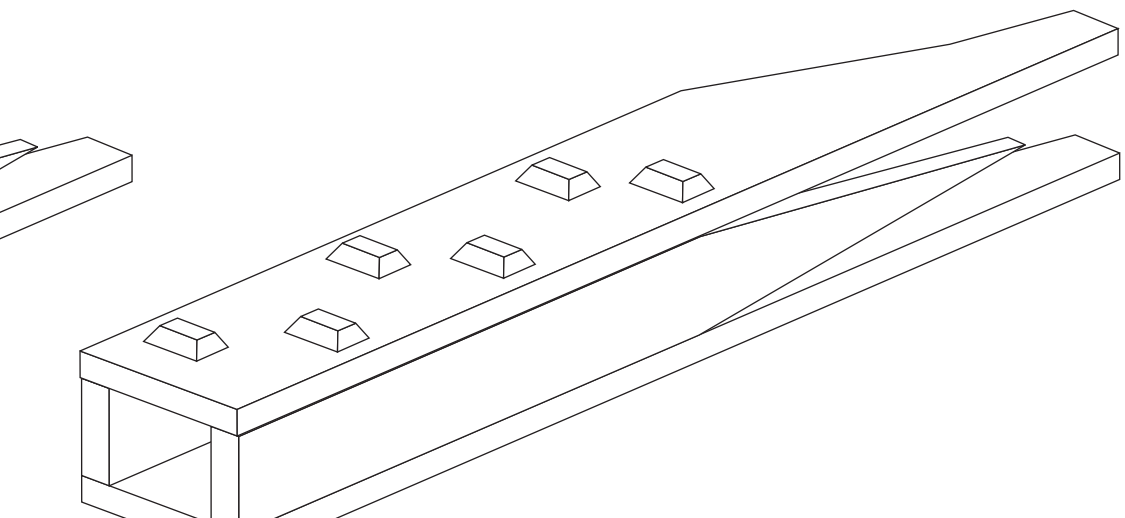
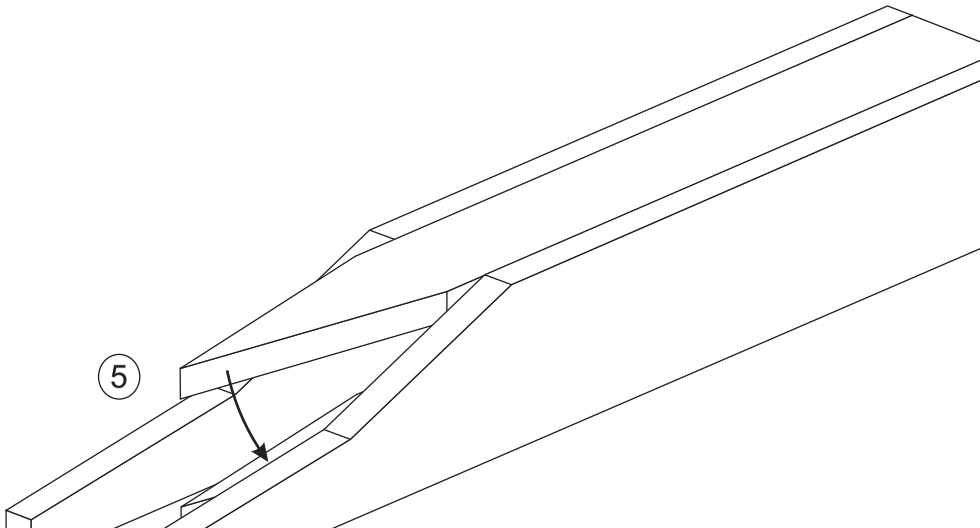
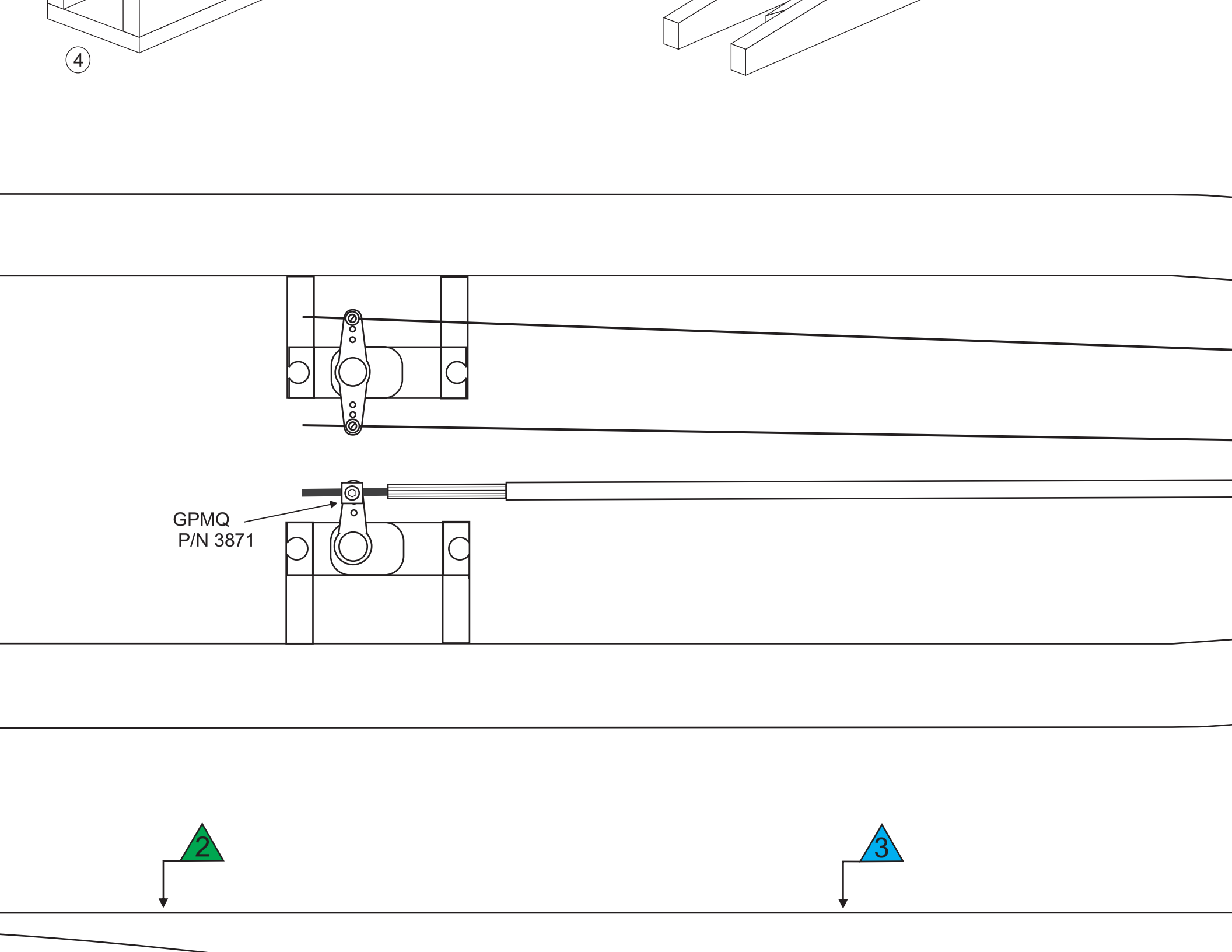
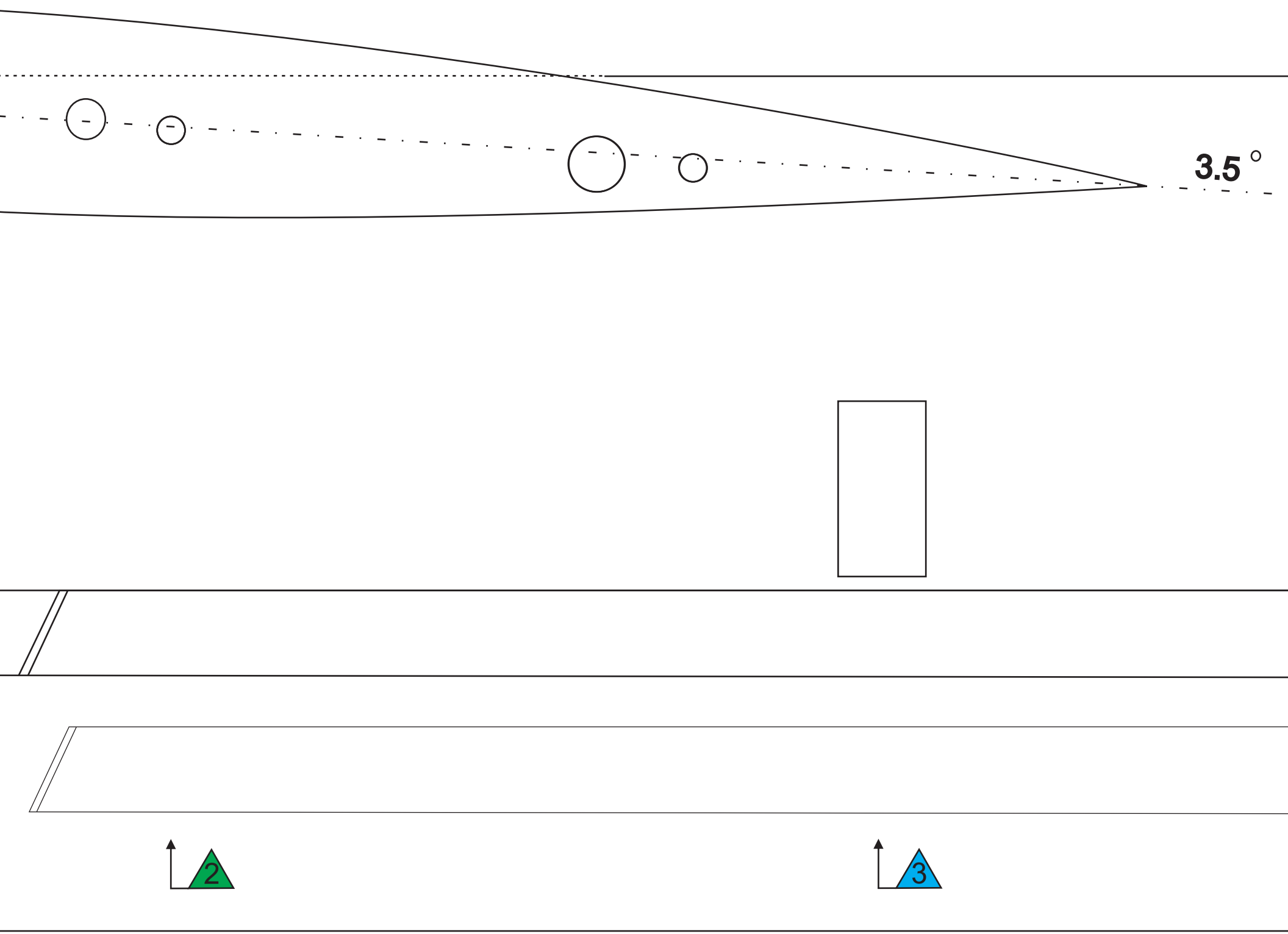

Fan power wires
Motor ESC wireing
Balsa leading edge

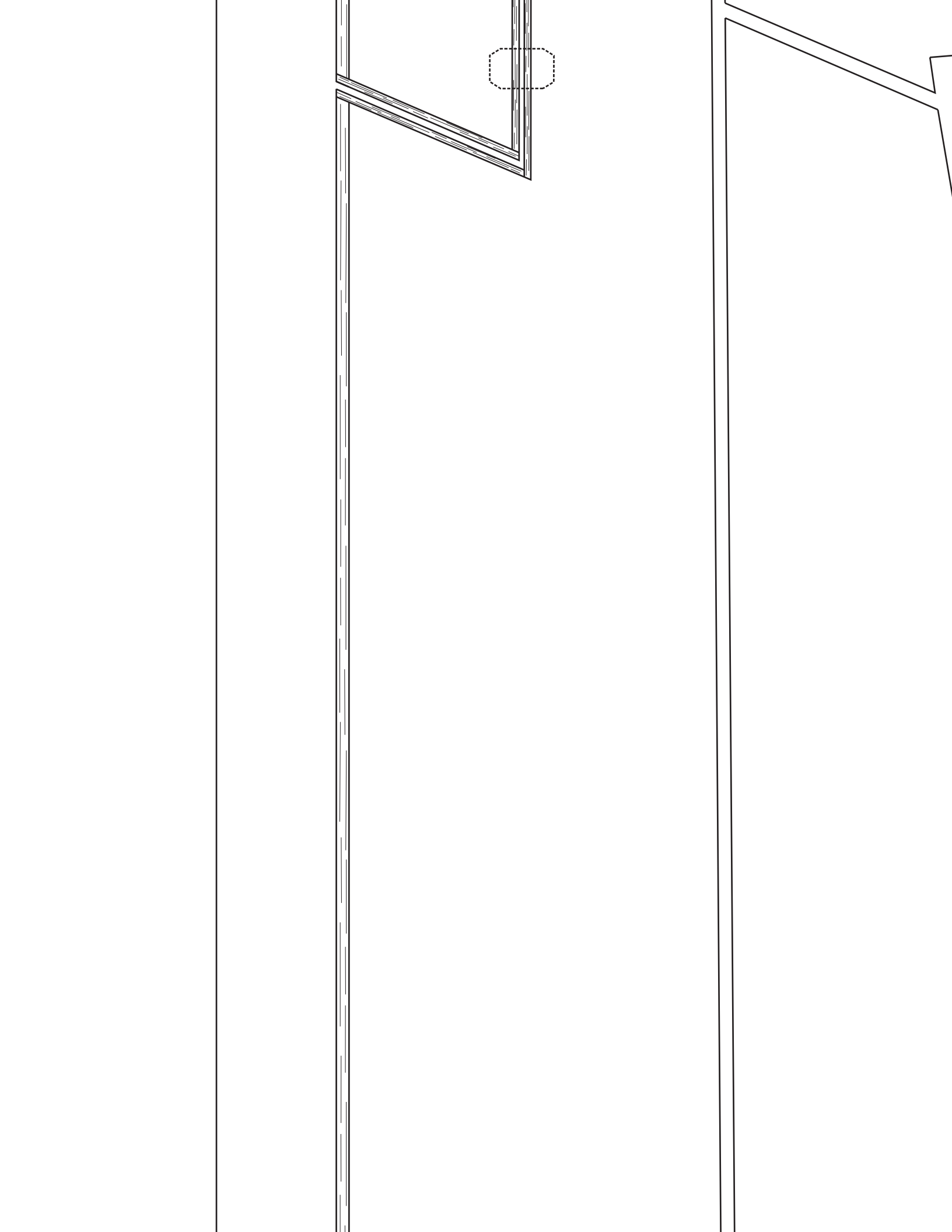

Balsa leading edge
Hardwood spar
Pylon spacer balsa
20 AMP ESC
mounted on both sides
5

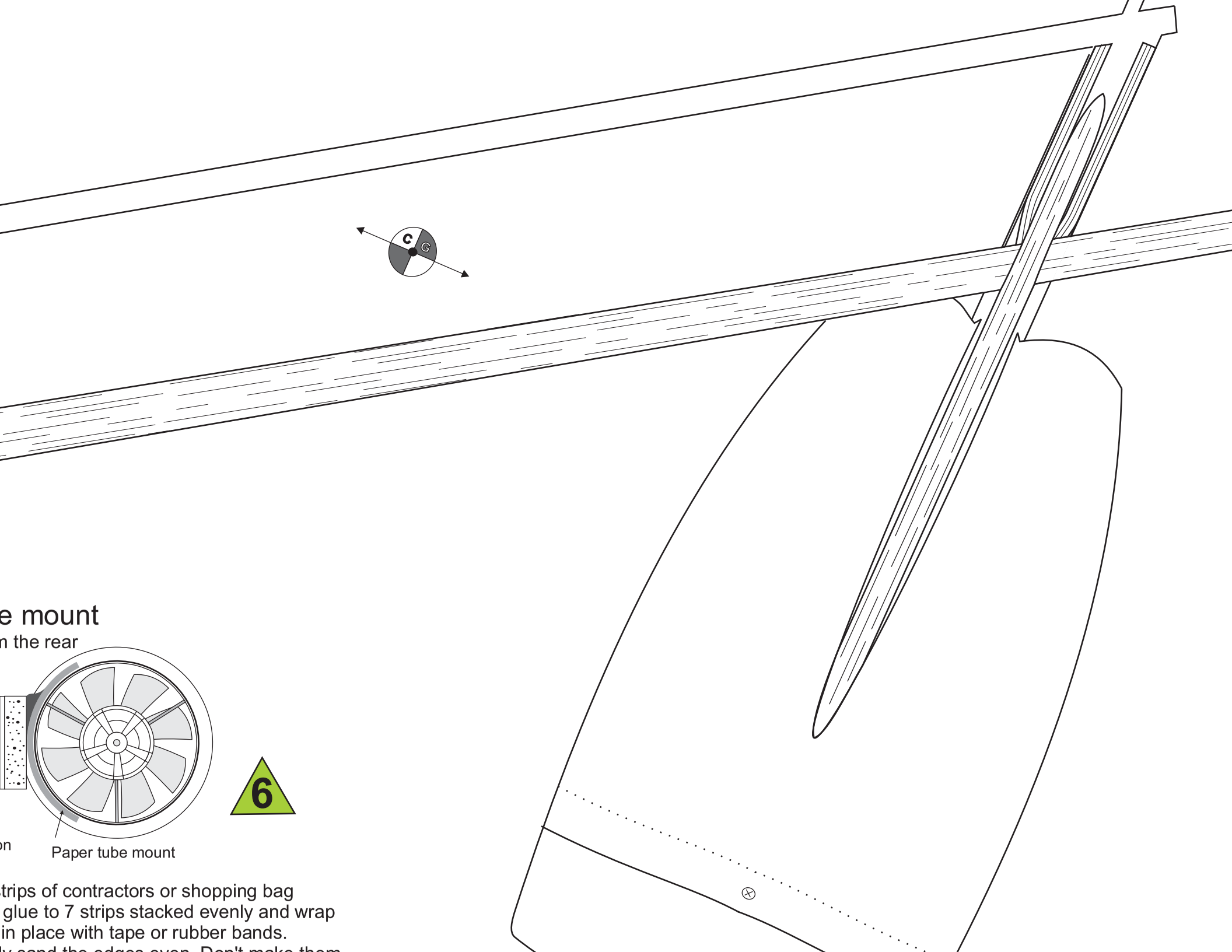



5


4
GPMQ
P/N 3871
2
3


3.5°
2
3





e mount

n the rear

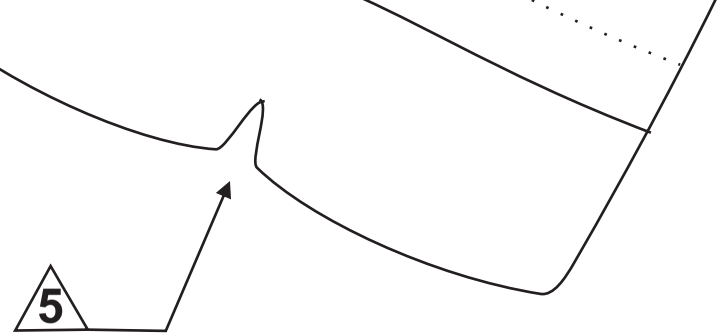
on

Paper tube mount

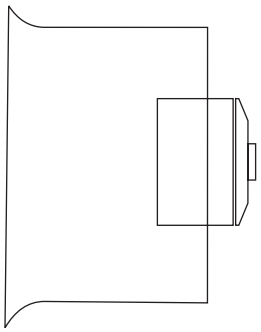
6

trips of contractors or shopping bag
glue to 7 strips stacked evenly and wrap
in place with tape or rubber bands.

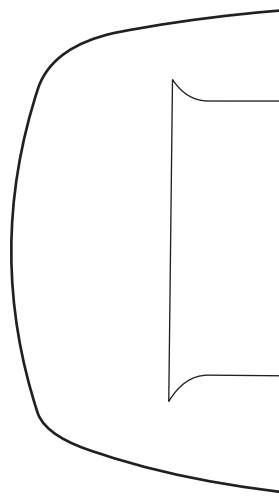
in place with tape or rubber bands.
ly sand the edges even. Don't make them
lge of the fan unit to attach a blast tube.
et the gap between the units and use epoxy
spacer block. Using silicone to attach the
a bond that can be broken if the fan unit

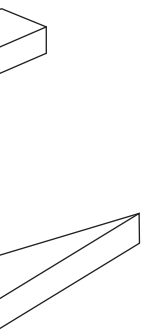


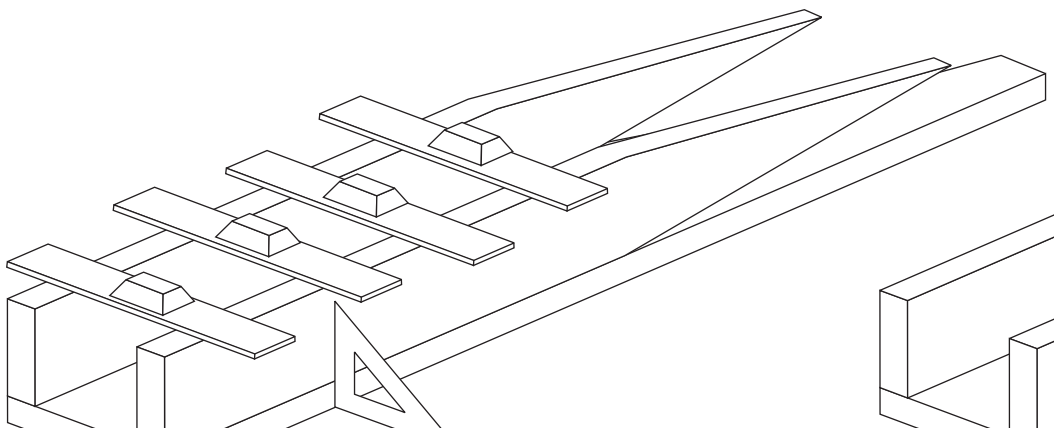
unner
1100kv

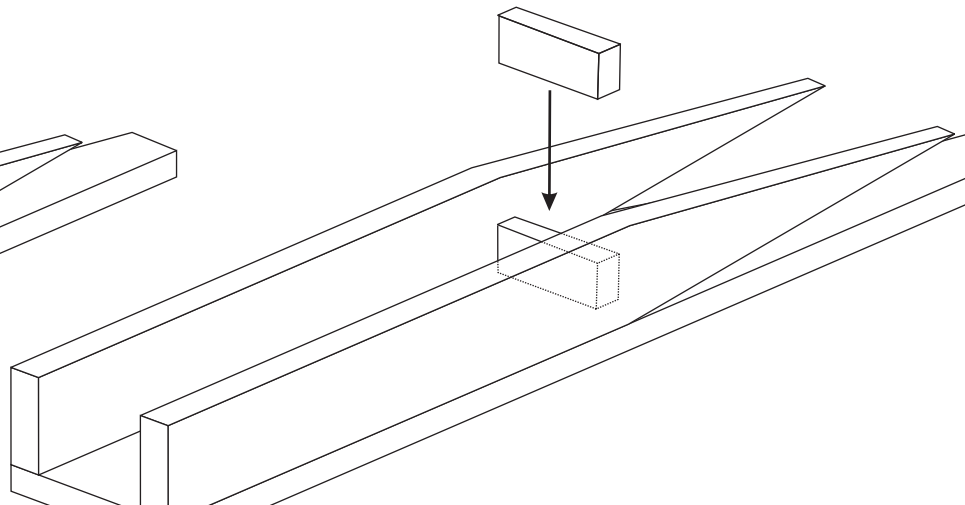


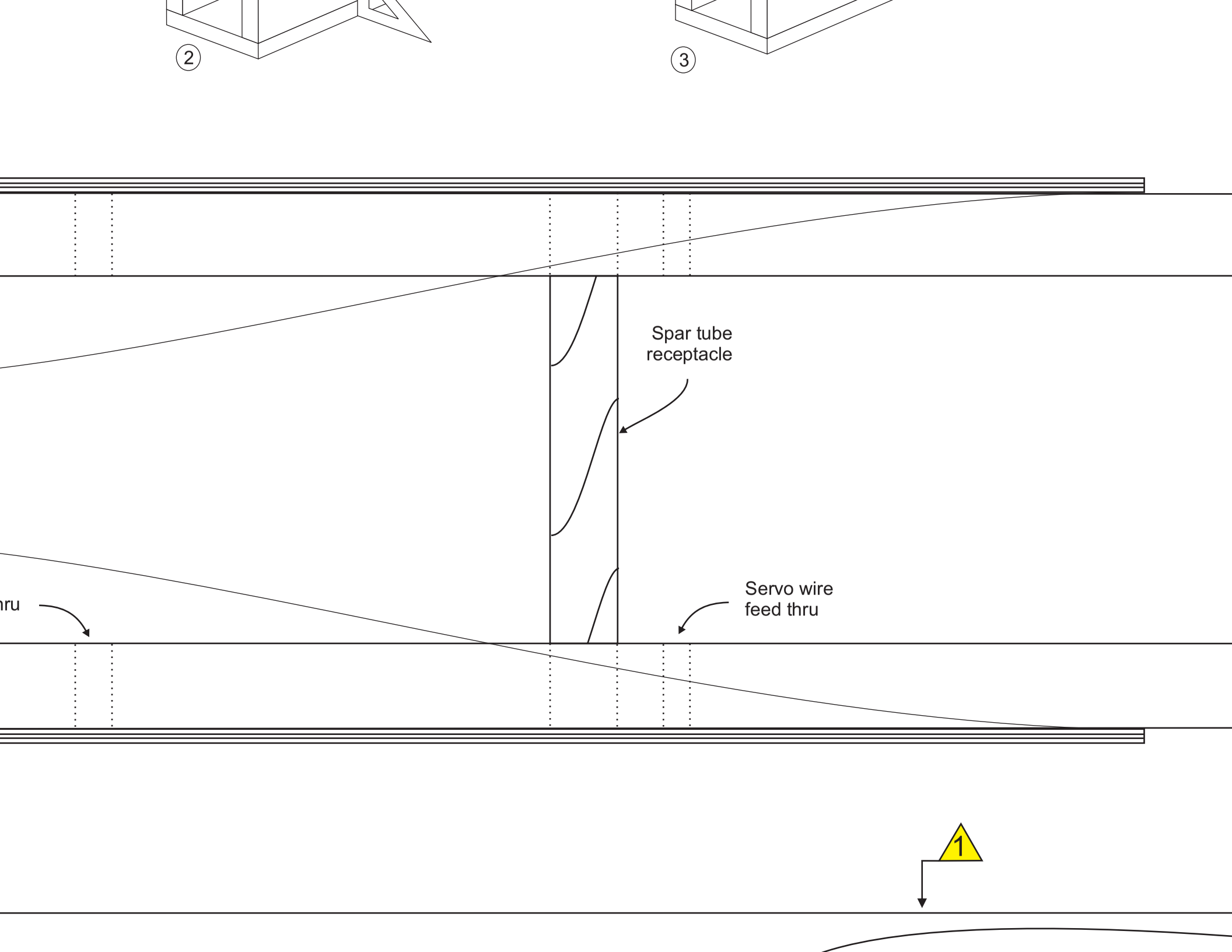
Test Data at 7.4 volt
Current 18.9
Thrust 170g / 6oz.
Power: 139.9 W

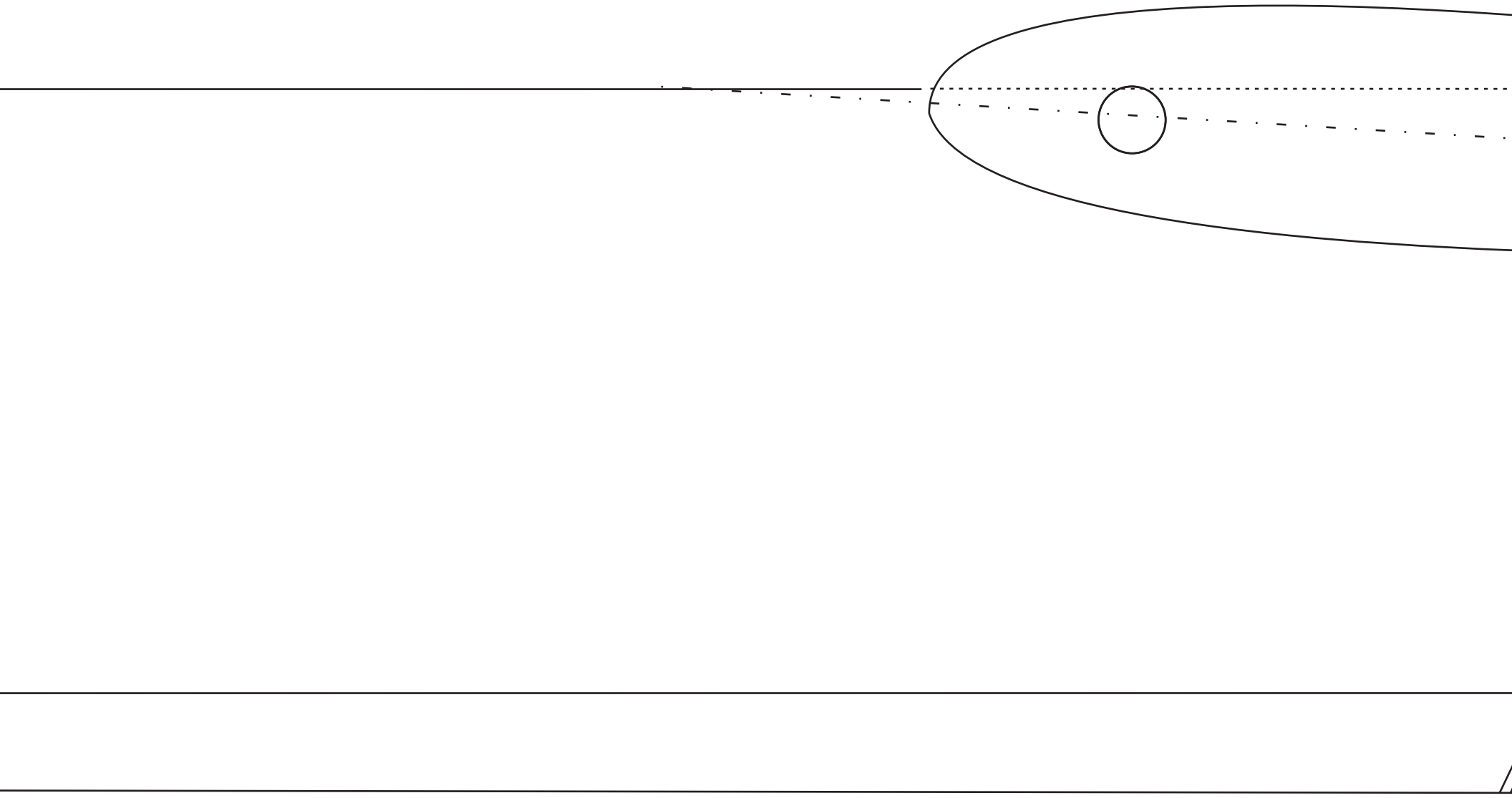






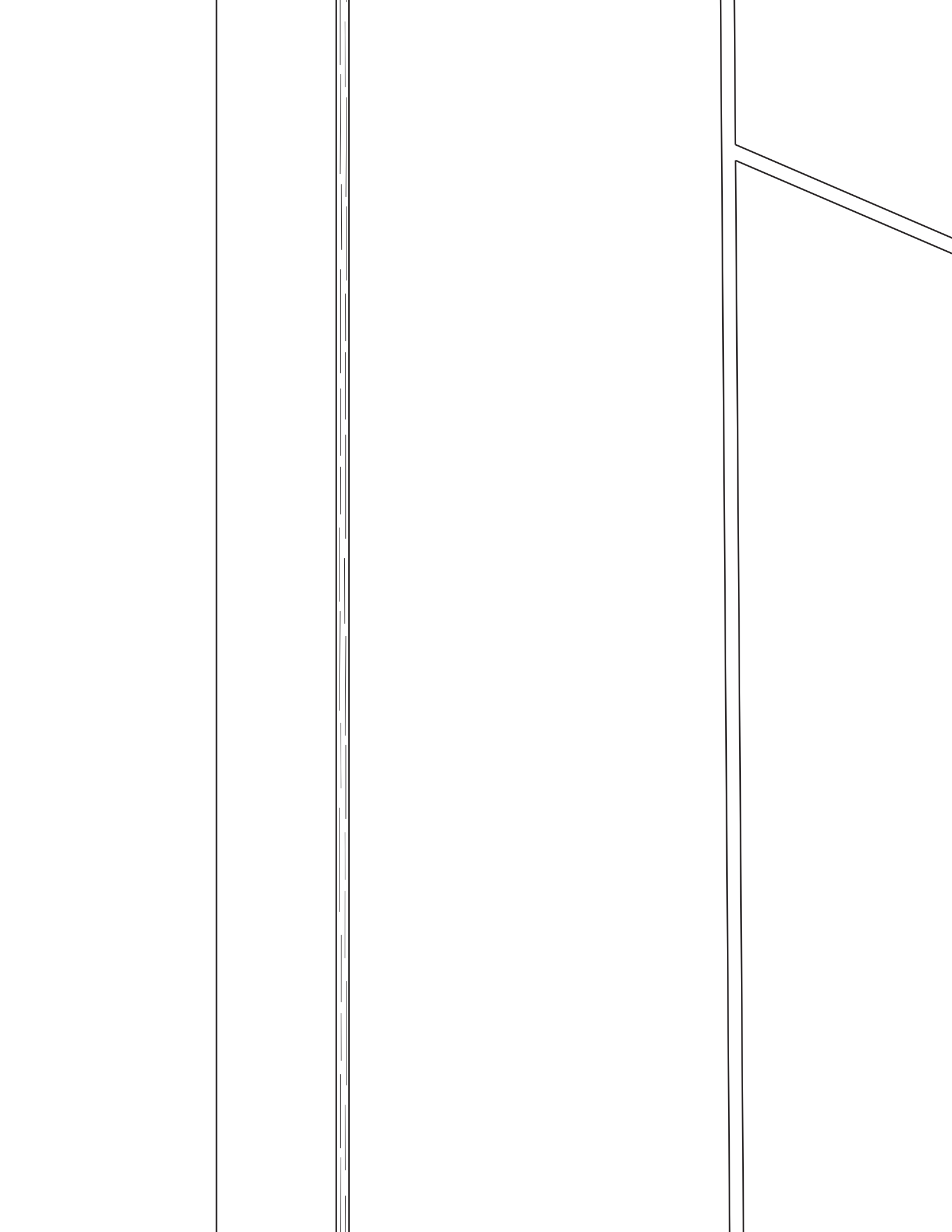



2
3
Spar tube
receptacle
hru
Servo wire
feed thru
1

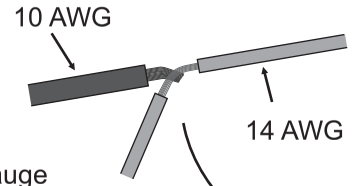


ace.
erfections.

g with foam”
onstruction.

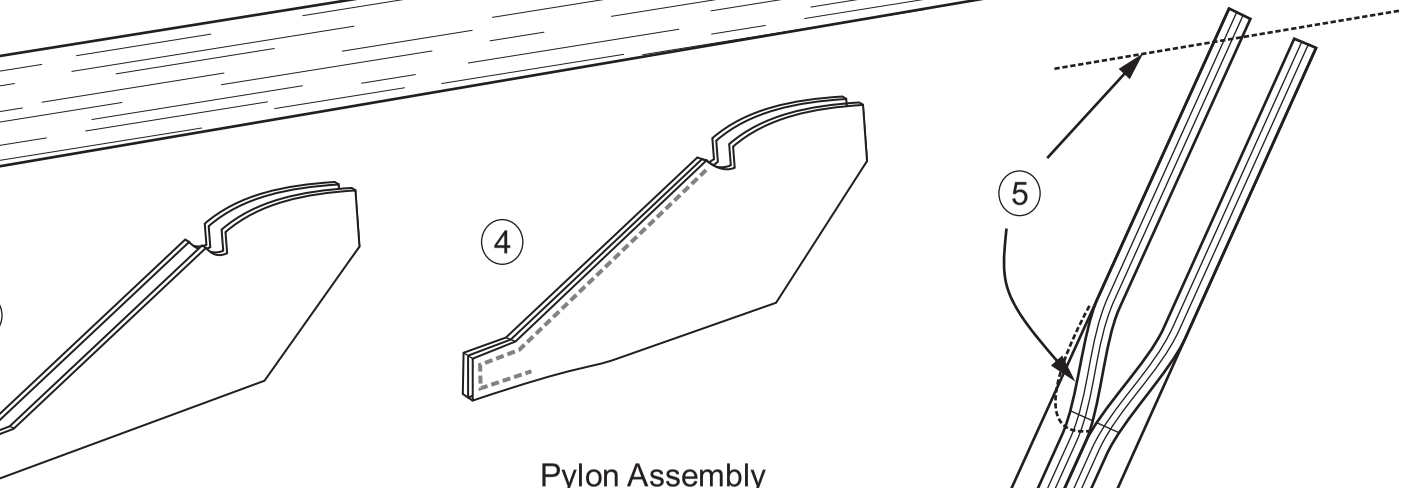


Motor Power Wire
Soldered Splice



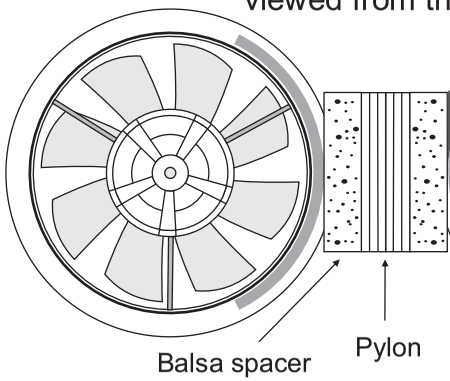
The main feeder wire is 10 gauge
it reduces to 14 gauge at this point
to save weight with minimum power loss.

inch deep.
ed in the groove
ar 1/4 x 3/4.



Pylon Assembly

Paper tube m
viewed from th



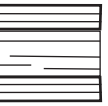
rns marked inboard are for the inboard pylon positions; there
patterns.
a to the positions shown on the patterns

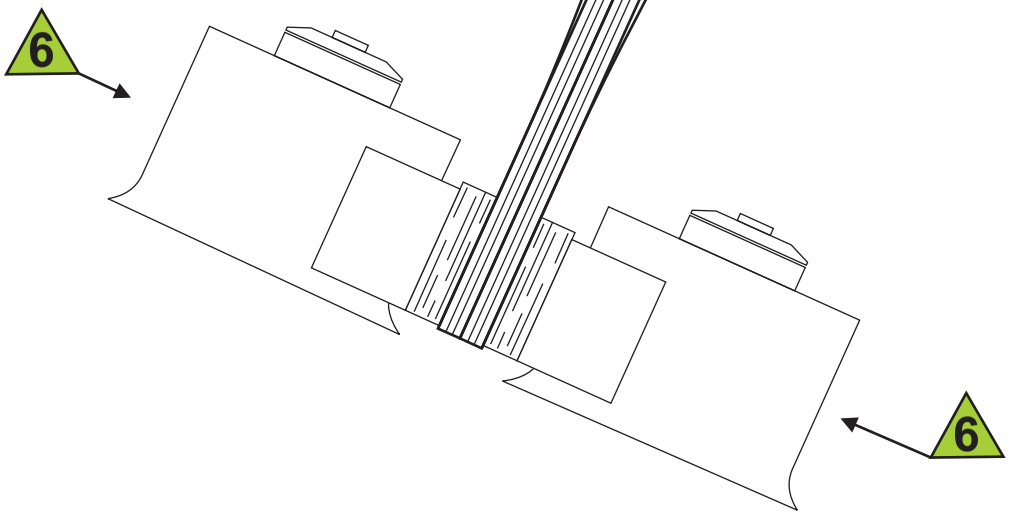
To make the paper tube mount, cut strip
brown paper into strips . Apply wood glu
them around the fan unit. Hold them in p

a to the positions shown on the patterns
f of the pylon to the balsa strips; align the panels to be even
e bonds to dry overnight.
nside edge of the pylon and clamp the forward tip and upper
ed leading edge. This bond should be allowed to dry

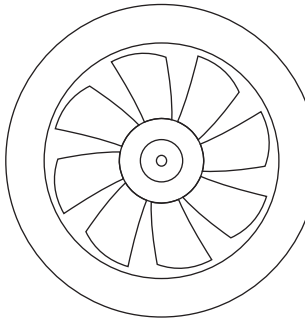
are installed, trimming will be necessary to match
d spar angles.

them around the fan unit. Hold them in p
When the mount has dried completely sa
too wide because we need the aft edge
Use the formed fan nacelle inlet to set th
to attach the mount tube to the balsa spa
fan unit to the tube mount will make a bo
should require replacement.

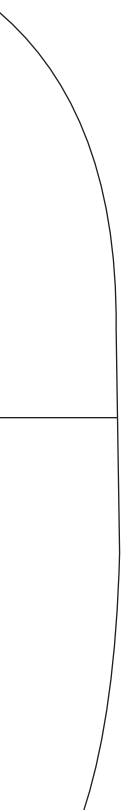


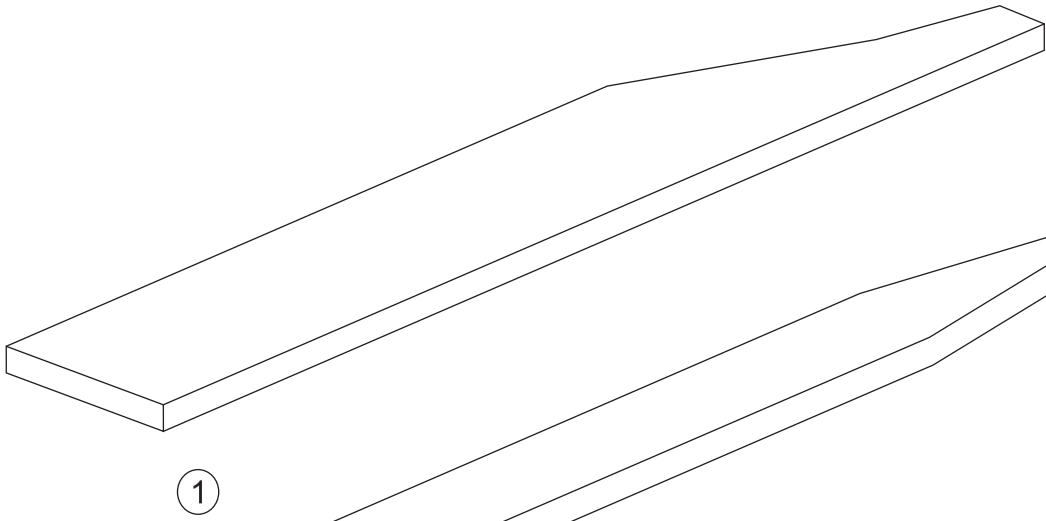


Brushless Outrunn
PN/ ADH-100 11



Inner Dia. 35mm
Outer Dia. 37mm
Weight 19g
8 blade rotor



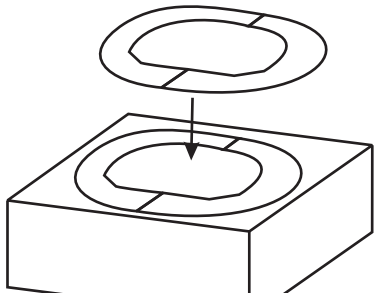


1

e inside wall of the nose can be sanded smooth
n the wall thickness.
o four segments solid will allow for a ballast
The compartment is not needed for powered
ndy for a slope glider version.

Scrap foam wing fillett

Motor wire feed thru

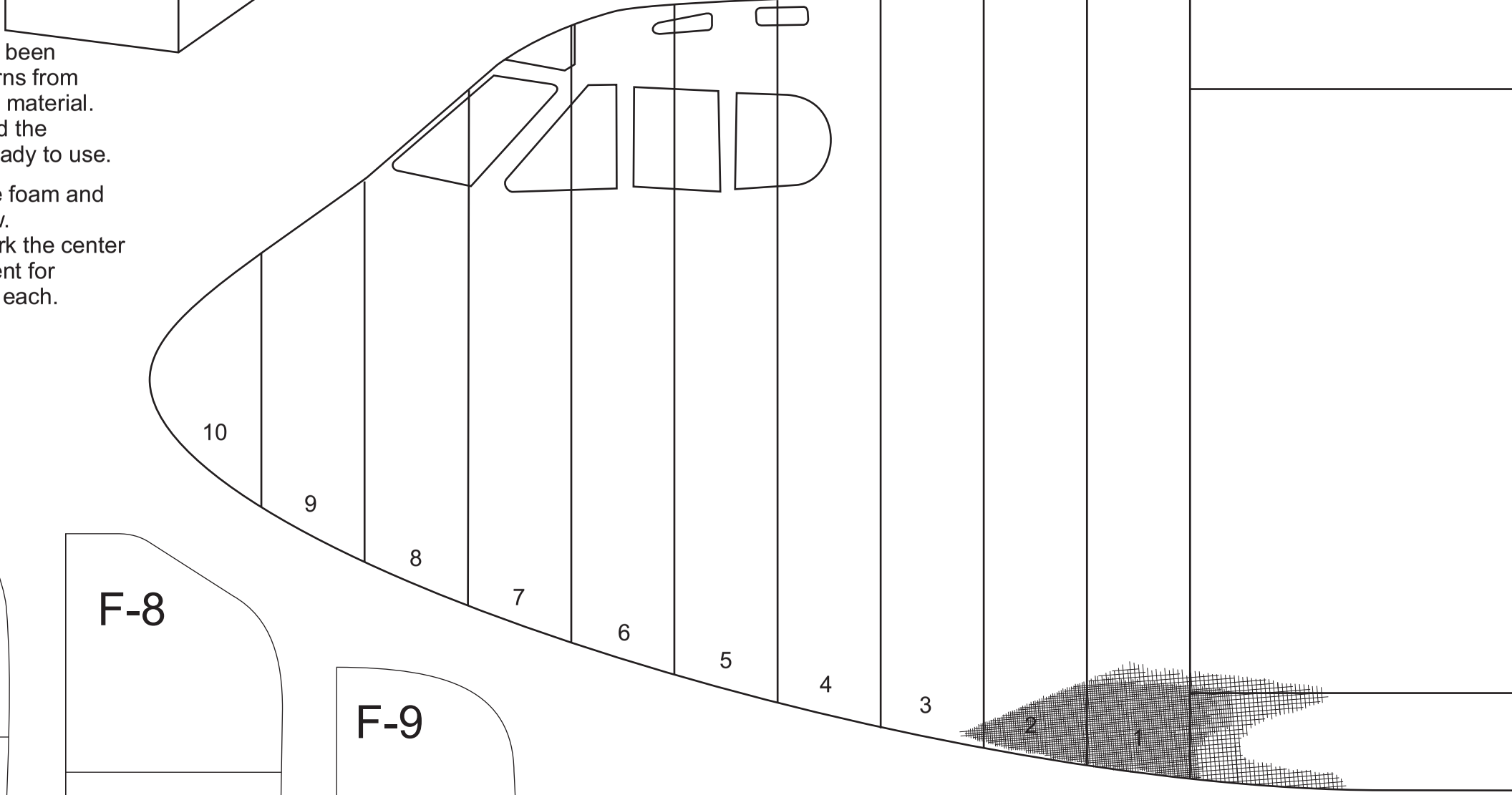


Zero water line is the top
of the fuselage

Datum Line

been
rns from
material.
d the
ady to use.

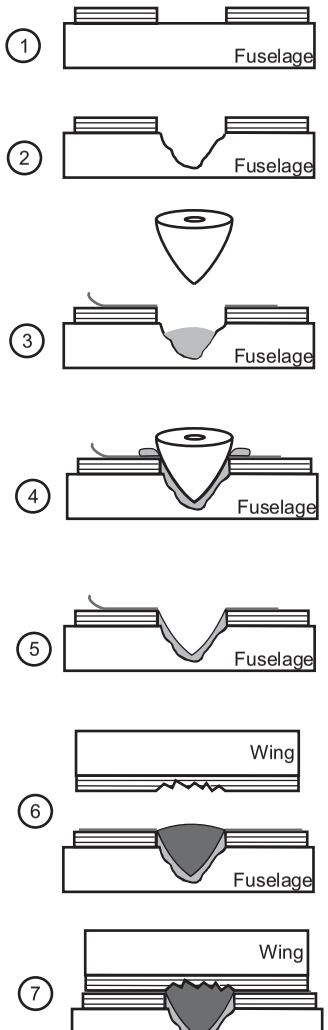
e foam and
.
rk the center
nt for
each.



1. Apply ½ ounce glass cloth and Zap finishing resin thinned 30% with denatured alcohol. Apply with a brush.
2. lightly sand the surface where the glass cloth overlaps to remove the ridge
3. After it cures, apply non thinned resin to the glassed surface. squeegee off excess resin with a playing card. wet sand imperfe
4. Repeat step three until the surface becomes glossy.

For detailed finishing instructions and tips, the book “building wi is suggested and is a must for those that are new to foam const

Wing Alignment Cone



This system works very well and makes wing installation easier at the field. It makes a tapered alignment pin that has a larger attach area than a standard pin. You will need 30 min. epoxy, to buy working time and prevent excessive heat. Micro balloons to make the epoxy thicker and plastic box tape and wax. The best wax is Wax toilet seal rings. Nothing sticks to it and it can be made fluid with a hair blow dryer.

1. This represents the side view of the alignment hole in the fuselage wing mount plate.

2.Dig some of the foam from the side of the fuselage at the hole location. note the cone shape

3. Cover the wood surface with plastic box tape. Apply a coat of wax to the tape surface and cut the tape away using the edge of the hole as a guide. Apply wax to a new or at least smooth spinner. Fill the hole about half way with epoxy mixed with micro balloons.

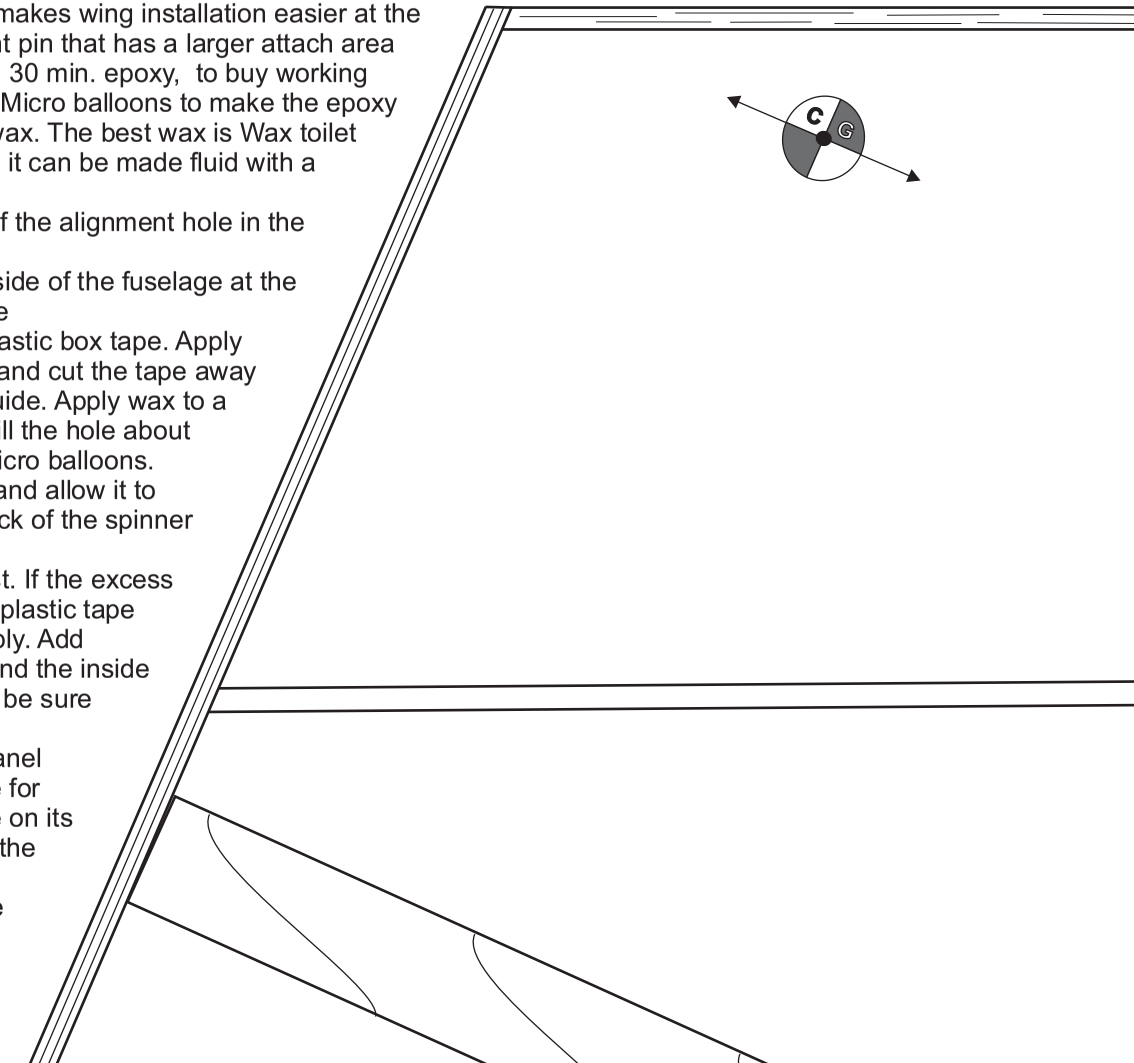
4. Push the spinner into the hole and allow it to set up completely. Be sure the back of the spinner is parallel to the wood plate.

5. Remove the spinner with a twist. If the excess epoxy is hard to remove from the plastic tape simply remove the tape and reapply. Add a coat of wax to the plastic tape and the inside of the cone recess, use a Q-tip to be sure wax is applied to the tip.

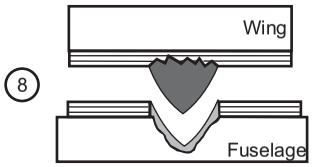
6.Disturb the wood on the wing panel where it meets the alignment hole for better adhesion. with the fuselage on its side, sightly over fill the hole with the epoxy/micro balloon mix.

7. Fasten the wing to the fuselage and allow it to cure.

8. If separating the two is difficult open a gap at the trailing edge by pushing the wing forward. slide playing cards into the gap

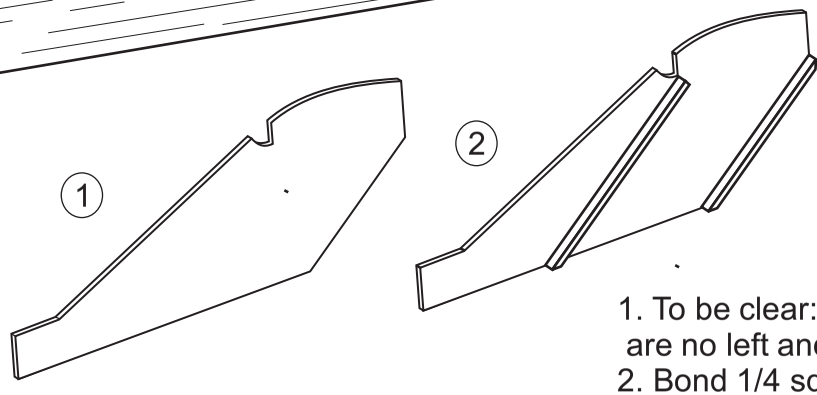


pushing the wing forward. slide playing cards into the gap toward the cone end then pull the wing aft.



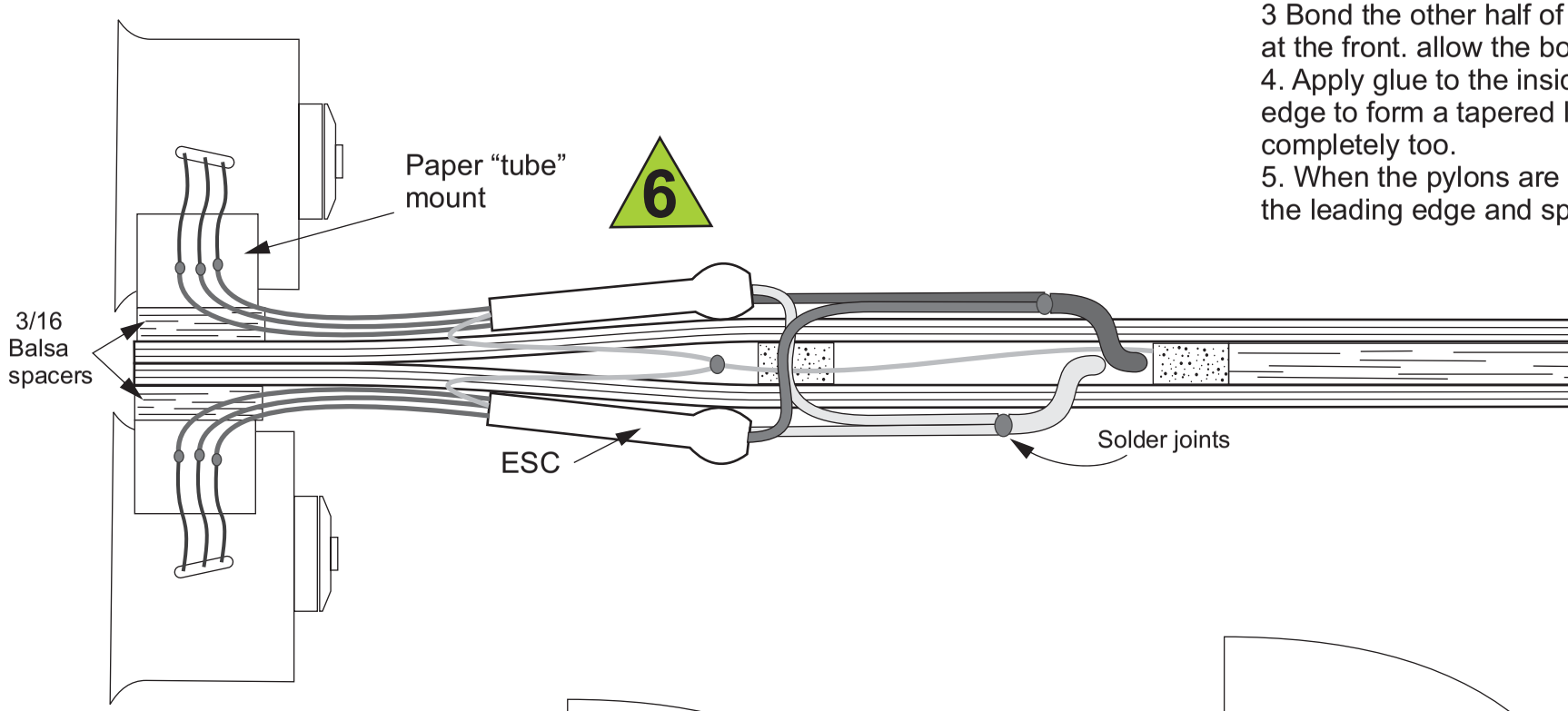
This groove is cut 1/4 inch wide and 1 inch
After the motor power wires are installed i
they are covered with A bass wood spar 1

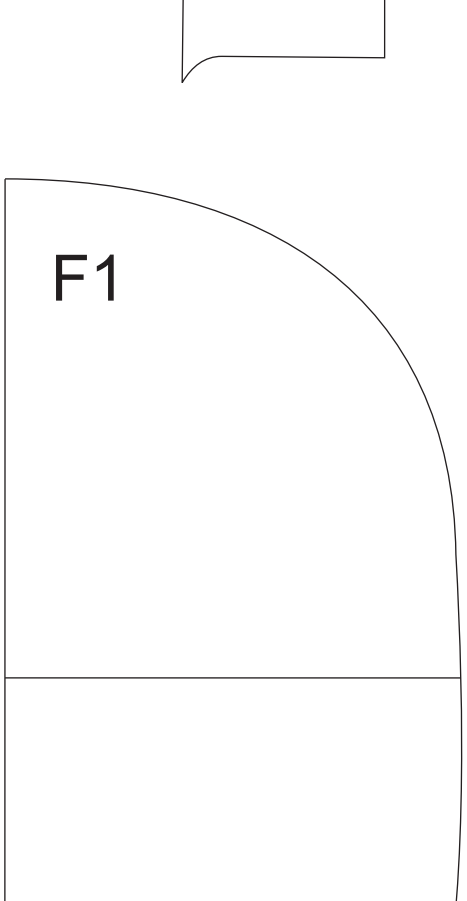
The motor power wires turn here.
The groove is filled with a foam strip
cut from scrap material .

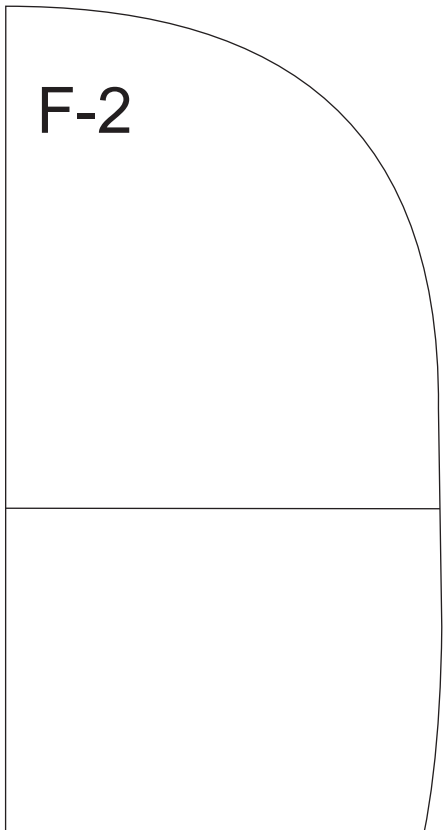


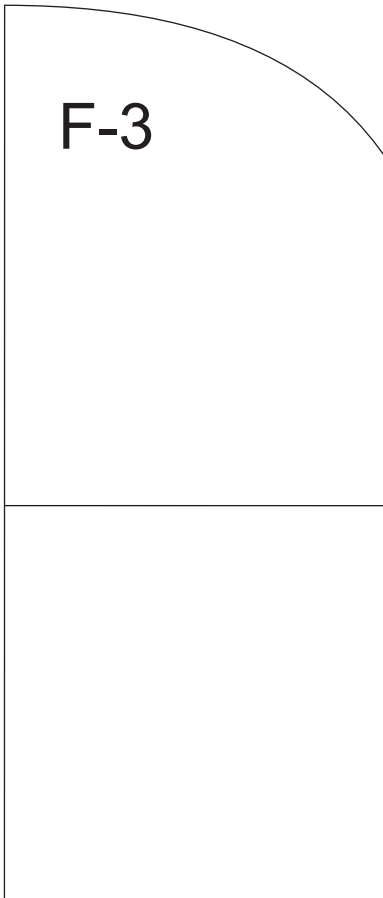
1. To be clear: patterns
are no left and right pat
2. Bond 1/4 sq. balsa to

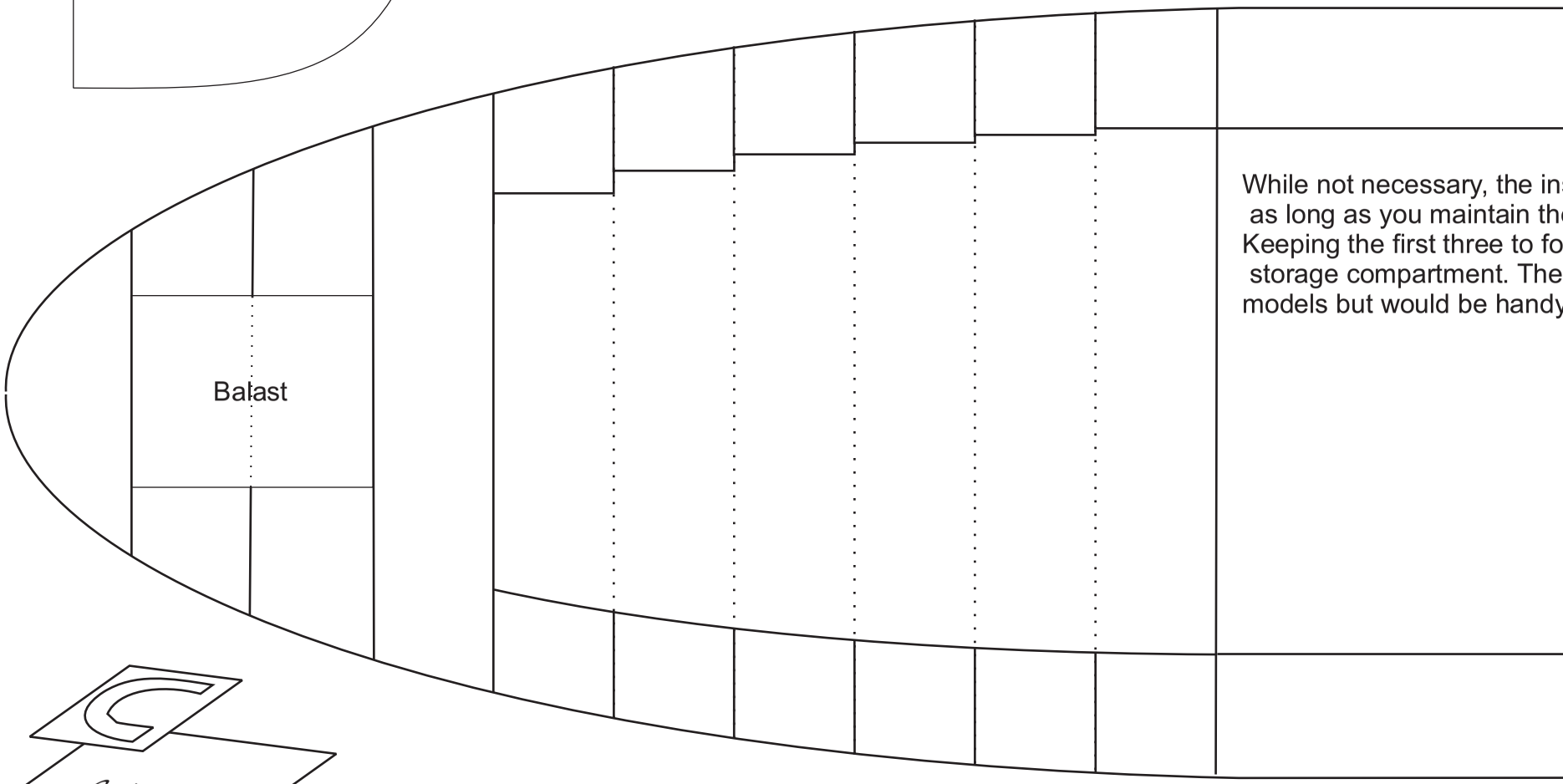
2. Bond 1/4 sq. balsa to
3 Bond the other half of
at the front. allow the bo
4. Apply glue to the insid
edge to form a tapered l
completely too.
5. When the pylons are
the leading edge and sp



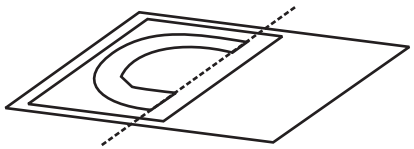


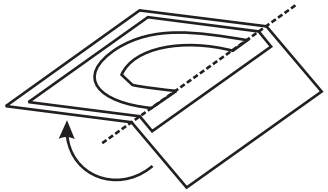


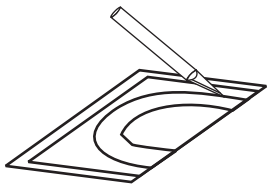


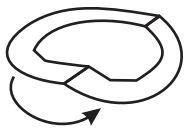


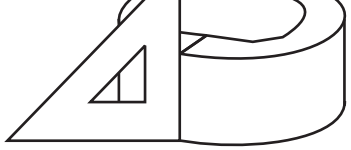
While not necessary, the in
as long as you maintain th
Keeping the first three to fo
storage compartment. The
models but would be handy

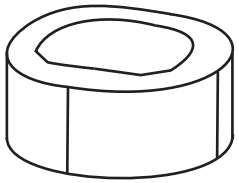












To save paper and the cost to you for printing the segment patterns have bee
drawn in halves. To make a full pattern either photo copy or cut the patterns
the plans. Apply spray adhesive to the pattern and attach it to card stock ma
Fold the card stock at the pattern center line. Cut through the pattern and th
card stock with a hobby knife or scissors, when unfolded the pattern is ready

Use the segment patterns to mark the foa
cut the block with a scroll or band saw.
Use a square to mark th
line on every segment f
alignment between eac

Making your segment patterns

F-4

F5

F-6

F-7