R6 R5 R3 R3 R4 R3 R3 R3 R4 R3 R2 R1

.375 dihedral

WING HINGE AT AFT STRUT DETAIL

Aft Strut Mount Detail

5/32 aluminum tube

JURY STRUTS are cosmetic and may be not installed

bracing detail shown at F2

stringer detail shown at F3

WING STRUT
5/32 CF tube fore
1/8 CF tube aft

cooling holes in cowl

1/8 x 1/4

T-nut hinge pin typ 4 places

grain

motor center

grain

F1
1/16 plywood

LG mounting holes
#4 clearance holes
4 places

BOTTOM DOUBLER
1/16 plywood

splice here if 6" wide plywood stock used

SIDE DOUBLER
1/16 plywood. 2 each, one left and one right, with plywood curl in opposite directions.

grain

gussets

1/8 x 3/16

1/16 x 3/16 plywood

1/8 x 1/4

1/4 x 1/4 catch

1/4 triangle

TURTLEDECK SKYLIGHT

TURTLEDECK SIDE

TURTLEDECK

size loop to clear 4-40 screw

loop is shown as initial bend pattern bend back to fit fuselage bottom

BEND PATTERN FOR BACK LG STRUT
2 required

.062 music wire

final bend made after insertion into tubing

clearance hole for #4 screw

LG BRACKET
.062 aluminum

LG BRACKET
.062 aluminum

MAIN LG STRUT
.078 music wire

rubber band

BUNGEE STRUT
.031 music wire

BUNGEE STRUT
.031 music wire

TUBING TREE construction detail

TUBING TREE

3/32 x .5 brass tubing

1/16 x .5 brass tubing

1/8 x 1 brass tubing

silver solder

TUBING TREE construction detail

tubing tree detail shown before bend

1/16 plywood

.031 music wire

1/8 x 1/8

ball point pen spring

top of F4

TURTLEDECK LATCH

.031 wire hardpoint 4 places

all tail parts 1/8 thick

VERTICAL TAIL CONSTRUCTION DETAIL

kevlar thread stabilizer brace

1/8 x 1/8

1/8 x 1/4

1/8 x 1/8

1/8 x 1/8

1/8 x 1/8

1/8 x 1/8

1/8 x 1/4

1/8 x 1/4

1/8 x 1/4

1" tail wheel

.047 music wire

F6

F5

F4

F3

building surface during fueslage fabrication

R1

CG 1.69" behind LE

F2

C3

C2

C4

C1

DOOR

1/8 x 1/4

1/4 x 1/4

battery

receiver

1/8 x 1/4

SIDE DOUBLER

NOSE SUBASSEMBLY

F1

1/8 x 1/4

bottom cowl gap for cooling air exit

1 degree down thrust

MAIN LG STRUT

BACK LG STRUT

2 1/2" wheel
4" wheel optional

1/4 x 1/4

1/8 x 1/4

1/8 x 1/4

diagnal braces are inside horizontal pieces

1/4 x 1/4

NOSE SUBASSEMBLY

2 each, 1/8 balsa
TURTLEDECK SIDE

C1 1 each, 1/8 balsa

C2 1 each, 1/16 balsa

C3 1 each, 1/16 balsa

Strut Hinge–Fuse
2 each, .040 aluminum

Strut Hinge–Wing
2 each, .040 aluminum
1 left, bent as shown
1 right, bent opposite

Wing Hinge–Fuse
2 each, .040 aluminum

Wing Hinge–Wing
2 each, .040 aluminum

Wing Strut–Aft

Wing Strut–Fore

all tail parts 1/8 thick

HORIZONTAL TAIL CONSTRUCTION DETAIL

.047 music wire

1/8 x 1/8

1/8 x 1/8

1/8 x 1/8

1/8 x 1/8

this brace bottom only

1/8" aluminum tubing elevator joiner

.047 music wire

Strut Hinge–Wing

windshield

Strut Hinge–Fuse

1/4 x 1/4

receiver & battery mount
1/8 x 3/4

1/4 x 1/4

1/8 x 1/4

BOTTOM DOUBLER

1/4 x 1/4

Wing Hinge–Fuse

0 degree right thrust

left wing

R6 R5 R3 R3 R4 R3 R3 R3 R4 R3 R2

1/8 x 1/8

WING STRUT ATTACHMENT
14" from root rib
make from
.025 x .080 aluminum

.315 CF tube

7/32 brass tube

1/4 brass tube

flap servo
if Y harness
used

flap servo
if extra RX
channel used

1/4 aluminum tube

7/32 CF tube

Wing Hinge–Wing

A1 A1 A1 A2 A1 A1

1/8 x 1/8

A1 A1 A1 A2 A1 A1

aileron

flap

1/8 x 1/8

1/8 x 1/8

7/32 CF tube

Wing Hinge–Wing

1/4 aluminum tube

WING STRUT ATTACHMENT
14" from root rib
make from
.025 x .080 aluminum

R6 R5 R3 R3 R4 R3 R3 R3 R4 R3 R2

1/8 x 1/8

.315 CF tube

1/4 brass tube

7/32 brass tube

right wing

.042 x 1 hitch pin

NACA7411

S3114 size servo

.031 music wire

Du-Bro 1/2A Control Horn

aileron profile

flap profile

3/16 x 3/4 TE

block up rear spar
3/8" inboard
and 1/2" outboard for washout

building surface

block up front spar
1/16" inboard and outboard

WING CONSTRUCTION DETAIL

C4 1 each, 1/16 balsa

R1 2 each, 1/16 plywood
plywood curl in opposite directions

elongate this hole to clear servo connectors, typ all ribs

R2/R3
2 each, 1/8 balsa--R2
12 each, 1/16 balsa--R3

R4 4 each, 1/16 balsa

R5 2 each, 1/16 balsa

R6 2 each, 1/8 balsa

A1/A2 20 each, 1/16 balsa--A1
4 each, 3/8 balsa--A2

1/4 x 1/4

7/32 aluminum tube

build F3-F5 with cross brace on top, install with cross brace toward front.

1/4 x 1/4

1/8 x 1/4

1/4 x 1/4

spacer added after initial fuselage fabrication

1/4 x 1/4

F3

3/16 x 3/16, typical

1/8 x 1/8

legs removed after initial fuselage fabrication 6 places

F4

3/16 x 3/16, typical

1/8 x 1/8

F5

3/16 x 3/16, typical

F6

building surface during fueslage fabrication

1/8 brass tube
inside 5/32 brass tube

3/16 aluminum tube

1/8 x 1/4

1/8 x 1/4

1/4 x 1/4

1/4 x 1/4

1/4 x 1/4

F2

MODEL INFO		PROTOTYPE INFO	
Wing Span:	54 in.	Wing Span	31' 6"
Wing Area:	355 sq in.	Wing Area	120.75 sq.ft.
Weight:	26 oz.	Weight	1320 lb
Motor:	Himax HC2812-0850, 150W	Motor	Rotax 912S, 100HP
lb/hp:	8	lb/hp	13
Battery:	Thunder Power 1350mA 3S LiPo	Fuel Capacity	18 or 26 Gallons
Covering:	Ultracote	Covering	Heat shrinkable polyester
Wheels:	2 1/2" standard; 4" optional	Wheels	19" standard; 29" optional
Scale:	1:7	Length	19'
CG:	1.69" behind LE	Height	7' 10"
Prop:	APC 10 x 4.5 electric	Length Folded	20' 8"
Servos:	6 Futaba S3114	Width Folded	7' 11.5"
Speed Control:	Castle Thunderbird 18	Number of Seats	2
Receiver:	Orange RX 8 chan (Futaba FASST compatible)	Number of Doors	2

Just Highlander

May 16, 2011 drawn by Scott Swanson

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dimensions in inches