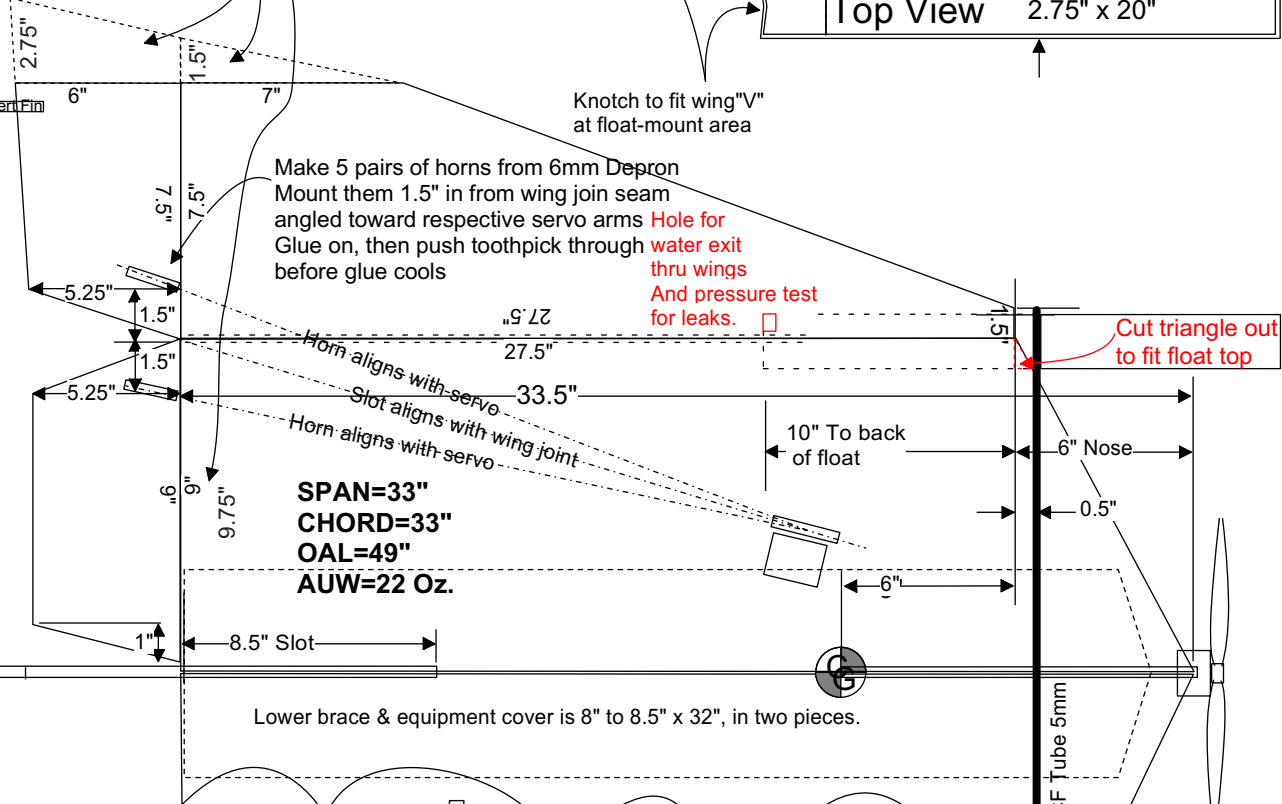
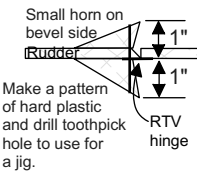
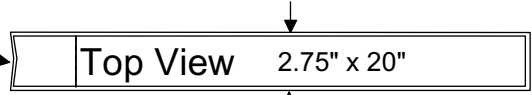
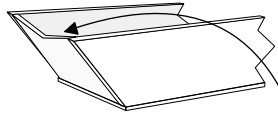
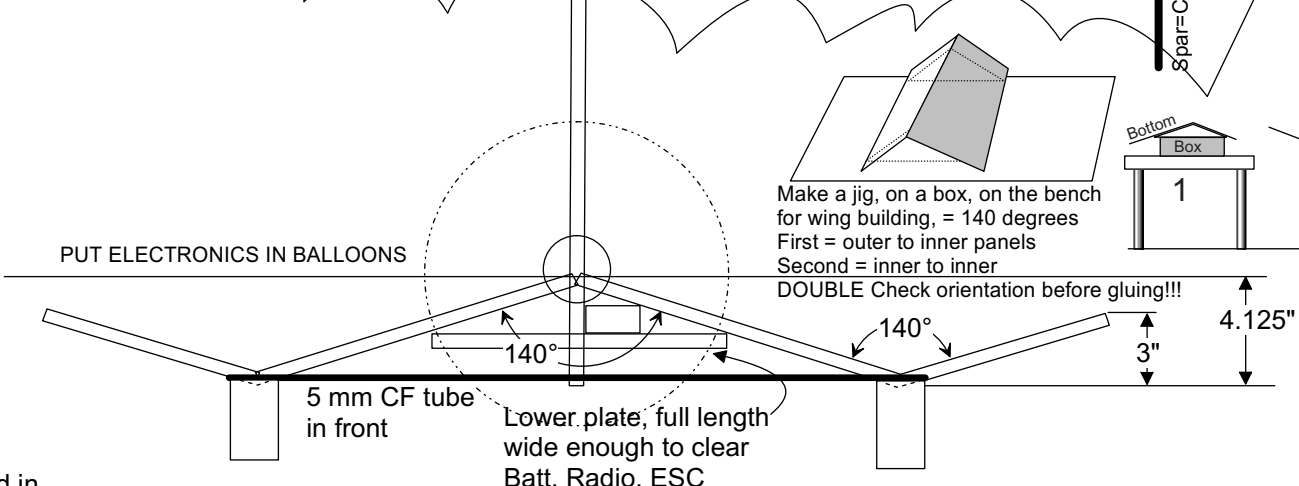
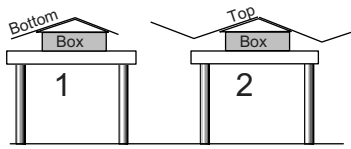


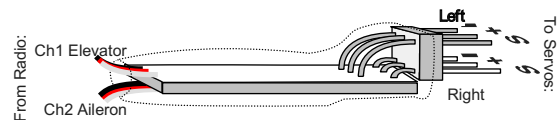
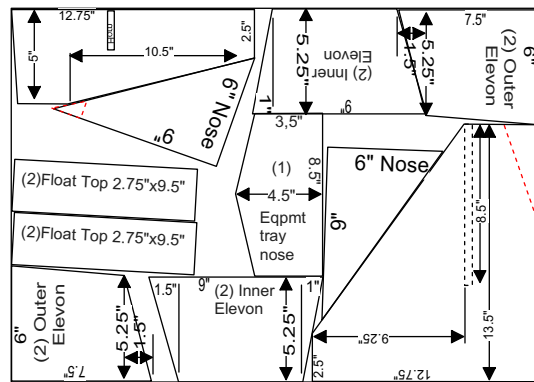
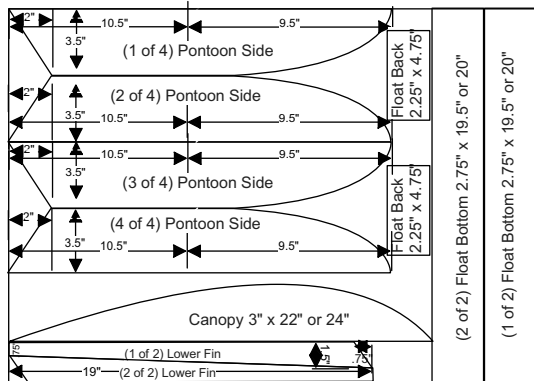
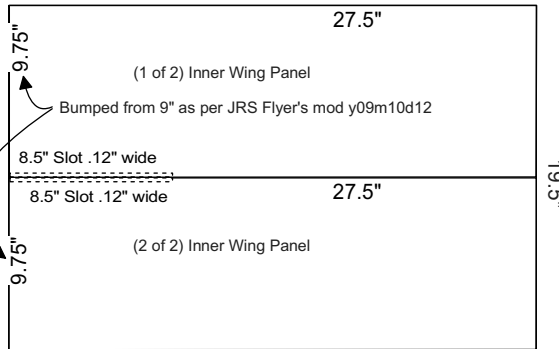
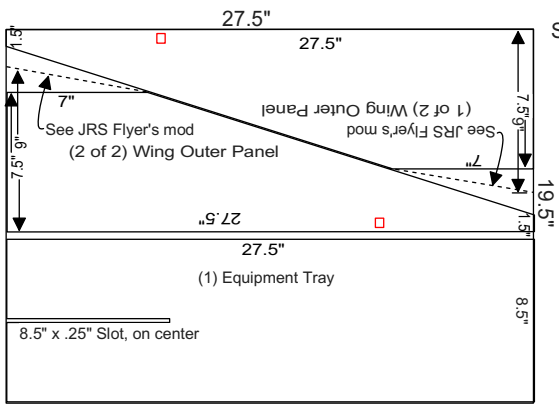
Suggestion from JRS Flyer on y09m10d12 scaled up from his Mini-Capricorn "Gives better stability." Also add 3/4" to width of inner panel.



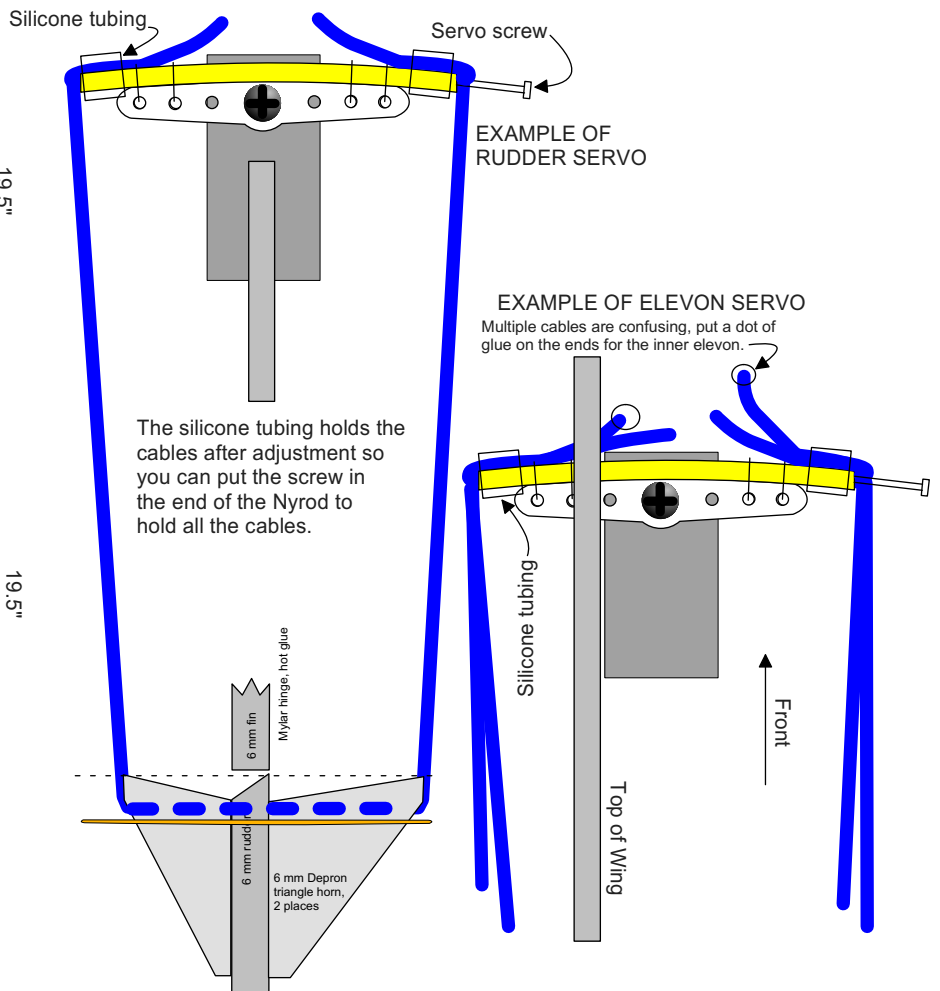
SPAN=33"
CHORD=33"
OAL=49"
AUW=22 Oz.



posted in <http://www.wattflyer.com/forums/showthread.php?t=26120&highlight=robbe&page=22>, post 527



Elevon mixer, if you need this.
TR-V-tail TURNIGY V-Tail Mixer. Ultra-small \$2.95



Parts for Original size Capricorn: (HC if not otherwise mentioned)

Depron 6mm sheets (Both in Atlanta GA... go figure)
Grayson
RC Foam

Carbon tubes 5mm OD, the others here are just handy, and you pay shipping anyway
Tube-297g Special Size Tube and Packing 297g (You must buy shipping package)
CF4 Carbon Fiber Tube (hollow) 5x4x750mm \$1.79
Carbon Fiber Tube (hollow) 3x2x750mm \$1.25
CF7 Carbon Fiber Rod (solid) 1x750mm \$0.90

Hinge material RTV - Hardware store
(details on request, I have a hinge test thread-WattFlyer- going)

Motor three ways:

1. Powerful, but 25A speed control not quite enough current, limits power. Use 50A ESC below.
TPC>6-1-8x3.8 TowerPro BM2409-12T / 25A BEC / 8x (Motor/ESC/Prop combo=\$18.75)
2. Not enough for vertical, but included 25A ESC is fine
TPC>4-1-8x3.8 TowerPro BM2409-18T / 25A BEC / 8x(Motor/ESC/Prop combo=\$18.75)
3. Motor alone (same as "powerful one"), no prop, no ESC
TR_2409_1600 TURNIGY Bell 2409 1600kv Outrunner (About \$8.67, but I can't find again)

Motor controller (ESC) Use this for powerful motor
SUP50A SuperSimple 50A ESC \$11.97 (This is 50 amp, but has no BEC)

Receiver power (BEC) (Needed for 50 A ESC):
Here is the commercial one, I didn't buy it, I made my own:

HXT UBEC 5/6v output, 5.5~23v Input \$ 6.95
parts if you want to make your own:
Mouser P/N 512-LM7805ACT (Or Radio Shack) 3A 5V 3 terminal regulator
1000 Mfd (approx) 5V to 25V electrolytic (Radio Shack) Mfd is not critical.

Prop 8 x 3.8 (One comes with motor)
At LHS (The Prop Shop, for me in Detroit 'Burbs)
APC LP 08038 8 x 3.8 SF \$2.95

Prop adapter (depends on motor shaft) I don't use one, tried but they suck for this.

Battery, with connector, 2 sizes of battery:

1. For less powerful motor, it is lighter, gives 6-7 mins, many choices, any that are in stock will do
ZIPPY 1600mAh 3S1P 20C \$17.02
Rhino 1250mAh 31P 20C Lipoly Pack \$13.49
ZIPPY Flightmax 1300mAh 3S1P 15-25C \$10.77
Zippy-Ec 1300mAh 3S1P 20C Lipoly Pack \$13.41

ZIPPY 1300mAh 3S1P 20C \$14.95
Rhino 1250mAh 31P 20C Lipoly Pack \$13.49
ZIPPY Flightmax 1300mAh 3S1P 15-25C \$10.77
2. For powerful motor, many choices, any that are in stock will do
ABF703496-3S ABF 2200mAh 11.1v 18-23C Lipoly
ZIPPY Flightmax 2200mAh 3S1P 15C \$18.41
Rhino 2620mAh 3S 11.1v Transmitter Lipoly Pack \$16.95
ZIPPY 2500mAh Transmitter Pack (Futaba/JR) \$19.95
ZIPPY Z22003S20C Flightmax 2200mAh 3S1P 20C \$18.99

Matching battery connector for ESC:

AM1033A Deans Style T-Connectors 10 Pairs (20pc) \$5.95

Motor connector:

(I don't add connectors, too lossy, too heavy)

Heat shrink for splices

AM1041-2MM-RED 2mm Heat Shrink Tube - RED (1mtr) \$0.25

AM1041-3MM-RED 3mm Heat Shrink Tube - RED

AM1041-3MM-BLACK 3mm Heat Shrink Tube - BLACK

AM1041-4MM-BLACK 4mm Heat Shrink Tube - BLACK

AM1041-6MM-BLACK 6mm Heat Shrink Tube - BLACK

This is a lot of heat shrink, but it is sooo cheap....

ON/OFF switch Select a heavy duty slide switch from Radio Shack,

Toggles may go OFF in flight, happened to me...

Remember you are handling peaks over 25A.

Receiver, 72mHz (Note you might want the more modern 2.4 GHz systems)

I have bought two, both good

1. GWRXS001 GWS 8ch Dual Conv 72mhz FM Receiver \$24.95 (You get no crystal)

2. E-Sky 8Ch Dual Conversion Rx 72mhz \$16.51 (crystal?... forgot)

Crystal set for above receiver

*****!(I have to dig this up, but it was a problem...)

Y connectors, needed sometimes, but not by my configuration:

AM1051-15CM Futaba Y Servo Lead 15cm Length \$1.68

Elevon mixer, if your radio has no programmable mixes, you need this.

TR-V-tail TURNIGY V-Tail Mixer. Ultra-small \$2.95

Transmitter,

I used my old 72 mHz ones from years of RC, You might go modern...

Servos (3)

EM_8g EM 8g / 1.4kg / .12sec Micro Servo \$3.22

Balloons (2) to cover electronics

Walmarts, craft area has black ones, how cool is that? 12IN/30.4CM Qty15 for \$1.17

Fishing line for pull-pull control cables

Fishing Store - Berkley D15L Steelon Nylon 15 lb DIA .021 30 feet \$2.99

Charger

HX8080 hexTronik Balancer/Charger Dual Ch

HC has new Turnigy charger looks good:

Turnigy Accucel-6 50W 5A Balancer/Charger \$34.99

Supply for charger (most are 12 volts)

Connector adapter charger to battery (Not sure which you need)

FPQ-MJST-3S Female Polyquest - Male JST 3S \$2.50

Female JST- Male Polyquest 3S \$2.50

OMG TOO COOL:

Battery tracker, in flight:

Hobbyking Wireless Battery Tracker w/ Free Battery 868mhz(& other mHz)\$29.99

Digital current meter with Deans plugs:

HexTronik VA-Tester (Voltage & Current indicator) \$5.85

Watt Meters:

TURNIGY Multi-F DC Watt Meter 75A has throttle knob \$35.95

Watt Meter & Power Analyzer (Watts up) \$39.46

Servo tester:

TURNIGY Servo Driver \$8.95

Airspeed logger:

WS HowFast Airspeed Instrument MPH-KMH (New Version) \$38.60

TOOLS:

Hot glue gun, low temp small diameter is easiest to control.

Hot glue sticks

Breakaway knife & Blades Olfa if you can find them...

Large magic markers for painting it Ugly but you need to keep orientation, All white = crash.

Associated info:

Flight simulator at

<http://www.wattflyer.com/forums/showthread.php?t=26120&page=30>

(see post 744)

Build plans:

<http://www.wattflyer.com/forums/showthread.php?t=26120&page=22>

(see post 527)

Hinge tests:

<http://www.wattflyer.com/forums/show...843#post632843>

REVISIONS:

y09m10d12 Wider wing panels, inner & outer
as per JRS Flyer's recommendations.