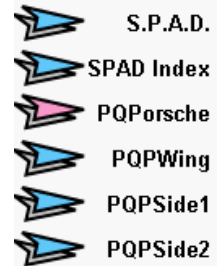
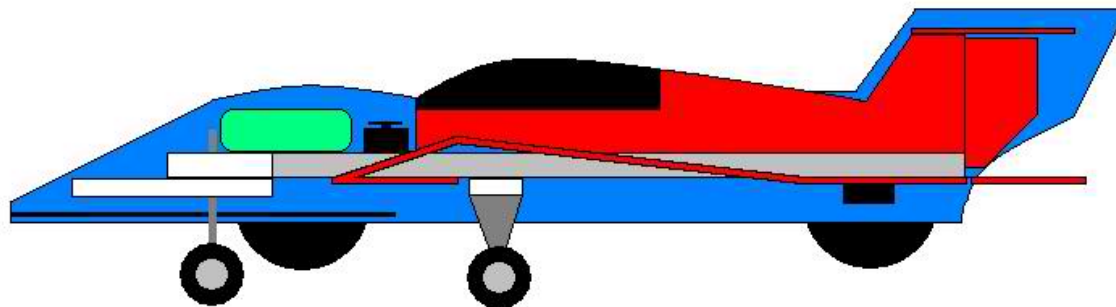




SPAD

Simple Plastic Airplane Design



SPAD PQPorsche Flying Car

Design: Collin McGinnis (Kraut)

Plans: Norman McGuffey (nmcguff)

Wing Span: 20"

Wing Cord: 30"

Length: 33"

Engine: .45 cu in

Weight: 4 ½ pounds (approx)

Channels—Rudder/steering, Elevons, Throttle

Materials List:

- 1 - 30" long piece, 3/4" aluminum plywood edging.
- 1 - 20" X 37" 4mm coroplast (flutes span 20" direction, see plans)
- 1 - 20" X 5.5" 4mm coroplast (flutes span 20" direction, see plans)
- 1 - 29" X 7" 4mm coroplast (flutes span 7" direction, see plans)
- 2 - 33" X 12" 4mm coroplast (flutes span 12" direction, see plans)
- 4 - 7" diameter 2mm coroplast disks (dummy wheels)
- 2 - 16" 1/4" diameter carbon fiber arrow shafts (front side reinforcement)
- 1 - 4" X 3" X 1/2" HDPE cutting board engine mount
- 2 - 2" X 1" X 1/2" HDPE cutting board spacer
- 1 - 8oz fuel tank
- #6 X 1/2" sheet metal screws
- 1 - 8' piece of PVC panel edging (for masonite sheeting)
- 1 - 2.5" wheel
- 2 - 3.5" wheels
- 3 - 5/16" wheel collars
- 1 - 5/16" nose gear (7" long)
- 1 - aluminum or plastic landing gear (4.5" high, 14" between wheels)
- 1 - steering arm for 5/16" nose gear wire
- .45 size engine
- 4 servos (throttle, rudder/nose steering, elevons)
- 4 channel radio with elevon mixing
- 3 - PVC control horns

Build Instructions:

This design is intended for builders who have experience building the QHOR and PQHOR SPAD designs on www.spadtothebone.com.

Make all parts according to plans. Use your own imagination for the shape of the car sides and center profile keeping the dimensions close to those listed on the plans. The plans were created from measurements taken from Kraut's original design.

Assemble wing and fuselage channel using similar methods described in the plans for the SPAD PQHOR aircraft.

Hinge the control surfaces just like all other SPAD designs.

After the wing and center profile has been added to the aluminum channel, add the PVC panel edging to the outside edges of the wing to give a surface to attach the side profiles. (Kraut used #6 X 1/2" sheet metal screws to hold the panel edging to the wing. You can glue the panel edging to the wing unless you want to disassemble the plane at a later time.)

Mark the side profiles for a right and left side. Mark a line 2.5" up from the bottom parallel to the bottom edge of the side profiles. This is used to align the bottom surface of the wing with the sides. Glue the sides to the wing. Zip tie the carbon fiber arrow shafts to the inside of each side profile to reinforce the front of the ca. Attach two 5.5" pieces of PVC panel edging to the ends of the horizontal stab. Attach a 1" piece of the PVC edging to the top of the vertical stab (make sure not to interfere with rudder operation). Attach the horizontal stab to the top of the vertical stab and the side profiles. Keep the horizontal stab parallel with the wing surface.

Glue the 2mm coroplast wheels to the side profiles leaving 1.5" sticking below the bottom of the side profiles. Attach the engine, fuel tank, and radio gear.

Control Throws:

Elevons - Maximum (make sure not interfere with rudder movement)

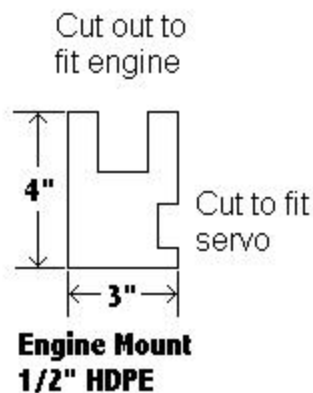
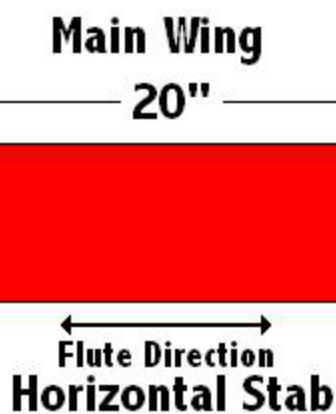
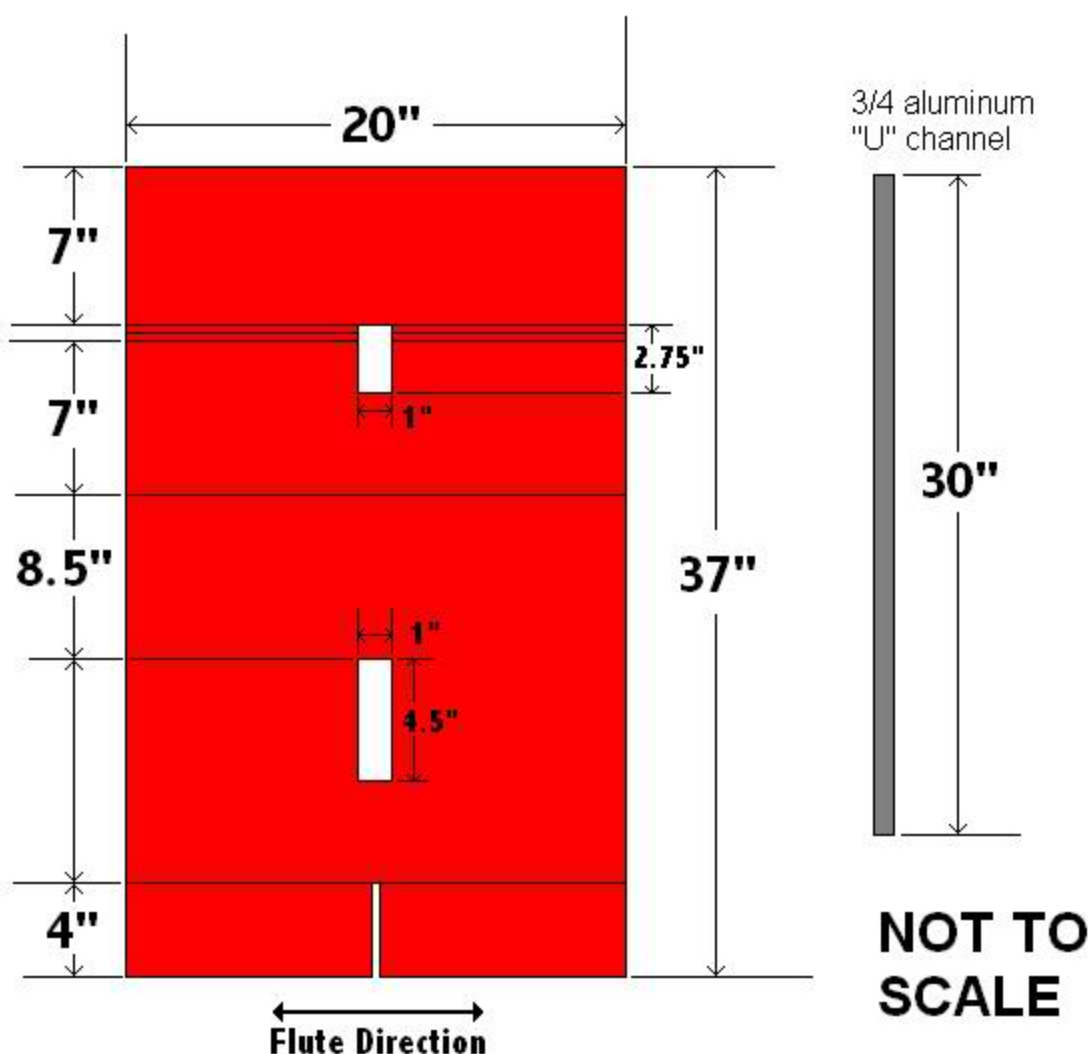
Rudder - Maximum (make sure not to interfere with elevon movement)

Flying:

Make sure you follow all AMA safety guidelines. If at this point you have any questions regarding the preparing, rigging, starting, running, radio range checking, field rules, trimming and flying of an R/C aircraft...YOU ARE NOT READY TO FLY THIS AIRPLANE. Please get the help of an experienced R/C pilot or local R/C club.

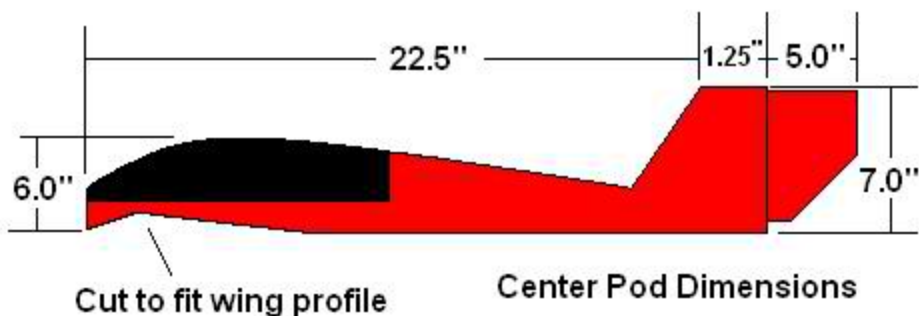
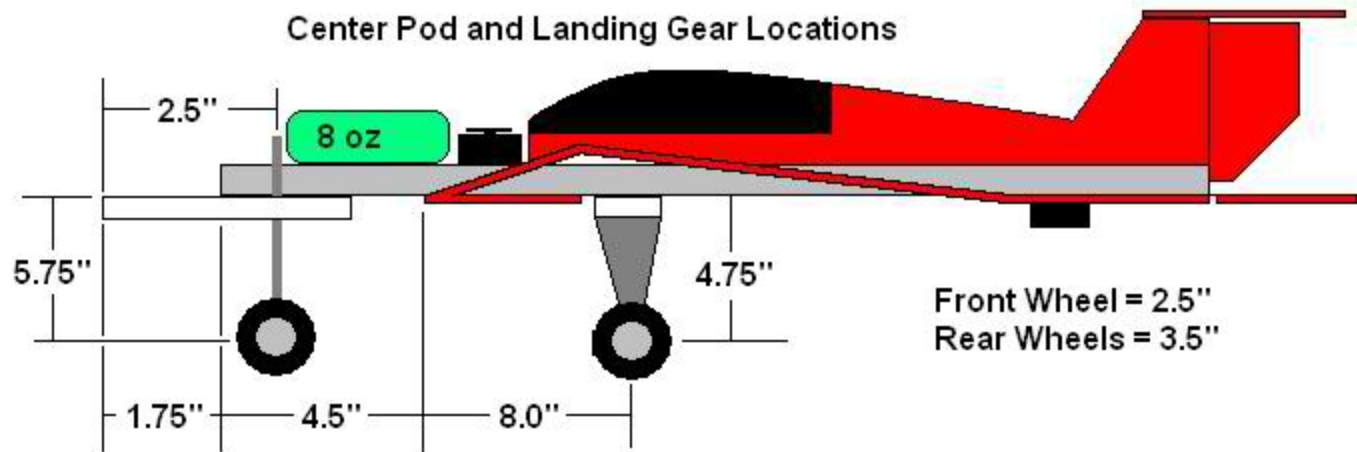
Have fun, and if you have any questions, please visit any of several Spad forums as linked to from the Spad Home Page at <http://www.spadtothebone.com/>

[S.P.A.D.] [SPAD Index] [[PQPorsche](#)] [[PQPWing](#)] [[PQPside1](#)] [[PQPside2](#)]

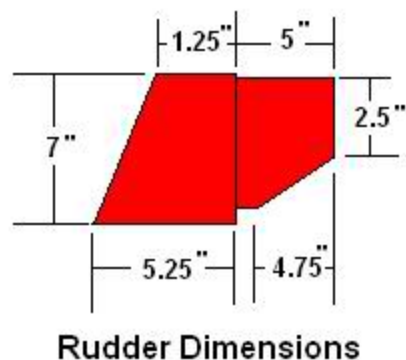


PQPorsche - Build fuselage and wing similar to PQHOR

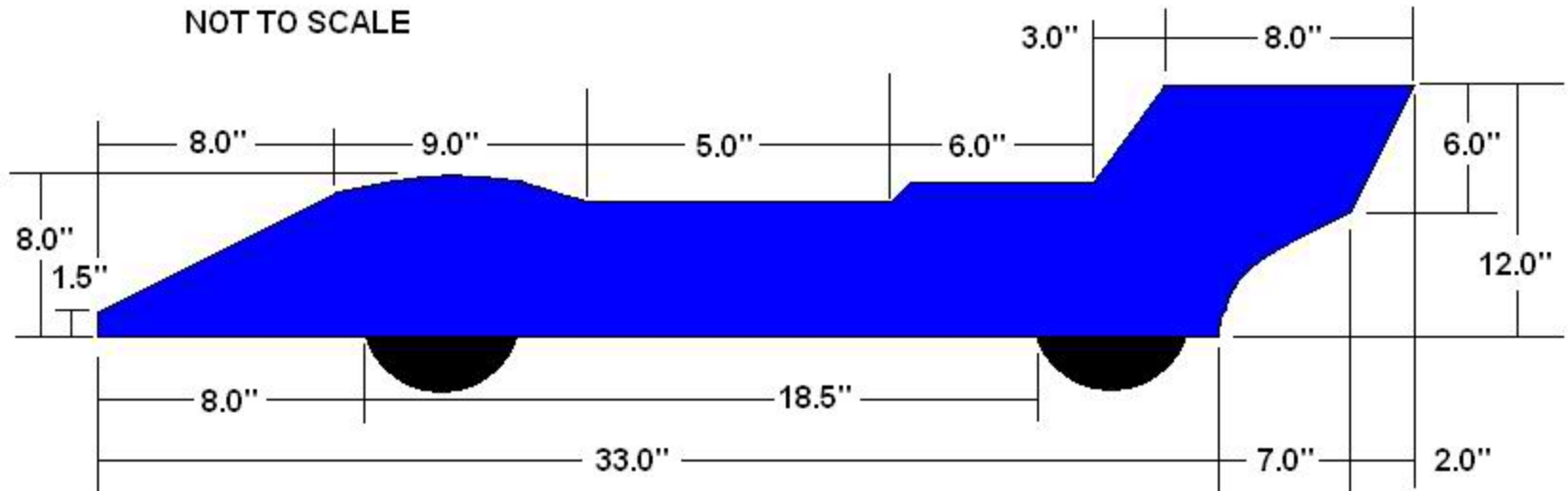
Center Pod and Landing Gear Locations



Flute Direction



NOT TO SCALE



Wheels = 7.0" dia.

1.5" of wheel is below bottom of side.