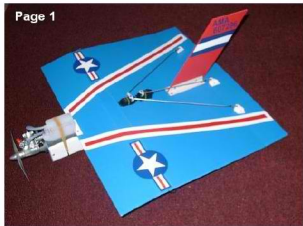


Spad Mini-Pizza Box Flyer

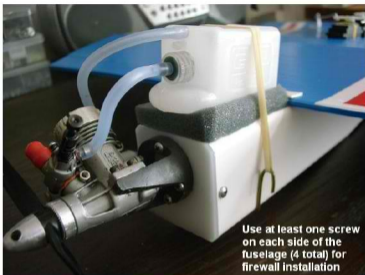
Page 1



.15 sized
unconventional
sport plane
just for the
fun of it!
Extream
simplicity and
very low cost
with crazy slow
flight
charicteristics
make this plane
a pure riot!

Materials

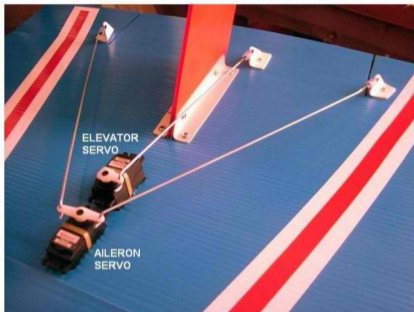
- 1) Canadian Gutter Pipe (20" piece)
- 2) 4 mm coroplast (24" square)
- 3) small self tapping screws (15 each)
- 4) Zip-ties (5 each)
- 5) Push rods (4 each)
- 6) Plywood or HDPE (Wal-Mart cutting board) for firewall
- 7) .15 sized engine and engine mount and mounting hardware
- 8) Your radio system (prototype uses 3 standard sized servos)
- 9) 4 ounce fuel tank and fuel line
- 10) Small scrap piece of coat hanger
- 11) Some cool stickers to put on your plane when it's done



Mount your firewall, engine mount and engine conventionally. If you want to install your fuel tank inside the fuselage, go ahead, but make sure the leading edge wing hold down screws don't rub the tank. For simplicity, I simply mounted my tank on top of the fuselage on a layer of foam. Simply take a scrap piece of coat hanger and bend a "U" hook as shown and rubber band the fuel tank in place. Don't forget to drill a hole in the firewall for the throttle pushrod. It is very important to have this done before installing your radio, because you will want to check for proper CG as you install radio components.



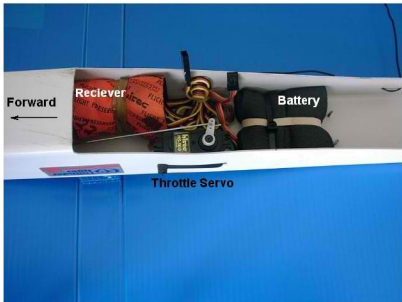
Coat hanger fuel tank hold down



Mount the 3 control horns as shown with self tapping screws and a control horn back plate on the bottom. Make sure to angle the aileron horns inward slightly so they line up better with the servo arm. Mount the horns as close to the hinge line as possible. Mount the servos by cutting a snug fitting hole in the Coroplast. Then drill two holes in the fuselage for the servo zip-tie. Don't forget to drill a hole in the fuselage for the servo leads to go through, and then simply zip-tie the servos in place. It is important that you do this before installing the rest of your radio, because the battery or receiver may cover the zip-ties inside the fuselage. ALL CONTROL SURFACES MUST BE SET PERFECTLY PARALLEL TO THE TOP OF THE FUSELAGE FOR NEUTRAL POSITION. When it comes time to rig the control surfaces, give them all the travel you can, especially the ailerons. No rocket science here...BARN DOOR THOSE BABIES!!!



The CG range on this airplane is from the foreward wing airfoil fold, to halfway between the two airfoil folds. The further back you balance within this range, the better the slow flight and hover controlability will become, but be carefull, because it will also become increasingly pitch sensitive at higher speeds. Setting the proper CG is achieved by where you install the radio gear. I got lucky, and everything ended up fitting perfectly in the exposed section of the fuselage cut-out. With the CG on the forward fold, you will have a very stable airplane, but could run out of elevator athourity during dead stick landings.



Using your radio equipment placement to get your CG correct, simply zip-tie all your radio stuff in place. You will notice that I didn't use a switch. I just plug the leads in for "on" and un-plug them for "off". Make sure you have the throttle set to shut the engine off for landings. I ran my antenna outside the fuelage just in front of the Reciever, and then looped it through two small holes as shown, and then ran it out to the wing tip and down a flute. You may also notice that I used a small zip-tie to the side of the fuselage to bundle up the spaghetti of wires nice and neatly. Make sure your elevator and ailerons are set parallel to the top of the fuselage for neutral, and also make sure they go in the correct direction. Now put some cool stickers on your plane, and you're ready to go flying!

Go fly your Mini-Pizza Box!!!



1. Follow all **AMA** safety guidelines
2. Do not even try flying this plane unless you are a very experienced pilot or have one helping you
3. Drill a streamer attachment hole in the rear of the fuselage
4. Make several friends build Mini-Pizza Boxes
5. Tie on some streamers and have a blast!
6. Be ready for a steep dead stick glide slope, the Mini-Pizza box likes to be flown in under power and then shut the engine off just before landing
7. This airplane loves to hover, and does a great toilet bowl! Loops are super tight, and watch out for that inverted death spin! Good luck and have fun!

