



This monstrosity has been named CR Plane (CRP).

(CR is of course Certified Retirement).

CRP has been created to check if the stunt trainer can be build from scratch during 2 weeks (~100 hours of work), using mainly cheap structural materials that are easily available in Home Depot, Canadian Tire or/and Rona.

The plane has modular design in which the top rectangular wing, horizontal tail and connecting these parts fuselage piece have been cut as one part using the pink ~0.625" foam from Home Depot.

Then, the other structural modules have been glued to this part using one of the Home Depot foam glues.

These other modules are:

1. Crutch and crutch reinforcement (hardwood, plywood and scrap balsa-plywood sandwich)
2. Bottom part of the wing (80% length of the top wing). Finished wings thickness = ~1.25". L.E and T.E of the wings are rounded. Airfoil is basically flat 12.5%.
3. Two spruce wings spars, 1/4" x 1/4"
4. Bottom vertical fuselage "fin" (white PFP)
5. Top aft fuselage triangular reinforcement (black PFP) with horizontal stabilizer (white PFP)

More details:

- 3" steel bellcrank mount (0.157" steel screw and steel drive-in nut)
- Bellcrank mount reinforcement (hardwood 1.25" long, 0.40" dia. dowel and 0.060" plywood on epoxy). Leadouts – like shown on the photograph, will have the guiding sleeves mounted to the inside wing tip
- Pushrod (epoxy/glass tube and threaded wire) with medium plastic horn attached to elevator (~0.625" foam on five hinges)
- 3/32 wire landing gear with plywood on hard scrap balsa landing gear mounting block
- Tail landing gear laminated between two hard balsa scrap pieces and glued into the fuselage slot.
- Fuel tank 5 fl.oz. with clunk
- Evo36 engine from my deceased Parrot with 11x4 APC propeller
- The entire plane will be covered with SLC (<http://home.earthlink.net/~philcartier/>)

Comment: SLC covers the pink Home Depot foam very well, using the Hangar 9 covering iron set to 2-2.25. PFP can also be covered with SLC but the iron cannot be set higher than 2 and must be kept in constant motion, otherwise the PFP foam will collapse or swell.

The RTF dry weight of CRP will be 37-38 oz.

The wings area: $475''^2 = 3.3 \text{ ft.}^2$

Wings loading: $\sim 11.4 \text{ oz./ft.}^2$

I expect the lap times around 4.9 - 5 seconds on 60' long lines (eye-to-eye). If lap times are too short, I will experiment with air brakes.

Flight tests will show if the project was worth the effort. 72 hours spent to date.

To be continued.....