

Plus X control deflections

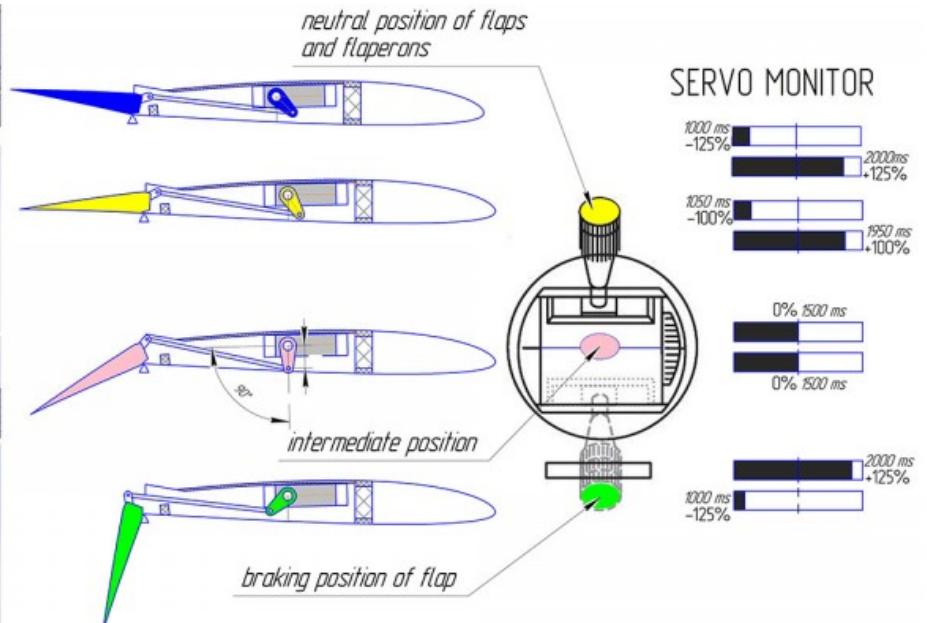
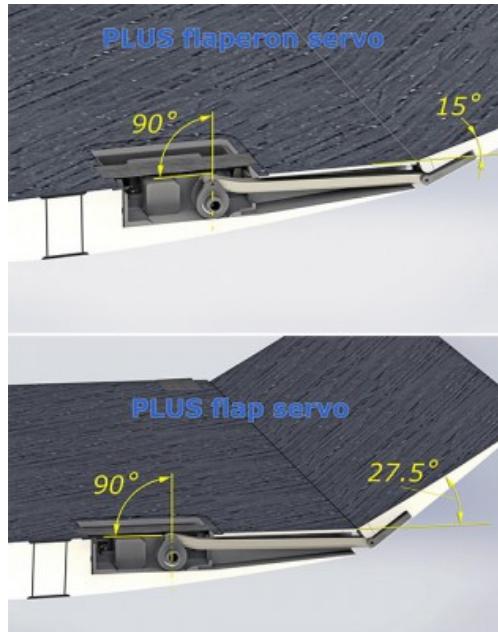
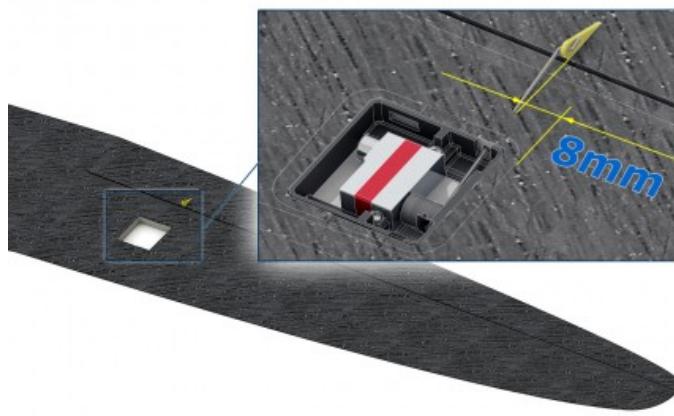
(- up, + down, ° degrees)

CG=105 mm	Left out aileron	Left in aileron	Flap	Right in aileron	Right out aileron	Elevator	Rudder
Speed	-1,5	-1,5	-1,5	-1,5	-1,5	0,0	0,0
Cruise	0,0	0,0	0,0	0,0	0,0	0,0	0,0
Thermal	slider0 ÷6	slider0 ÷6	slider 0÷6	slider 0÷6	slider 0÷6		
Cruise Full Up Elevator	3,0	3,0	3,0	3,0	3,0	-7,0	0,0
Cruise Full Down Elevator	-2,0	-2,0	-2,0	-2,0	-2,0	17,0	0,0
Cruise Full Left Aileron	-17,0	-7,0	0,0	17,0	7,0	0,0	-6,0
Cruise Full Right Aileron	7,0	7,0	0,0	-7,0	-17,0	0,0	6,0
Full Flaps	5,0	45,0	75,0	45,0	5,0	10,0	0,0
Left Rudder						0,0	-20,0
Right Rudder						0,0	20,0



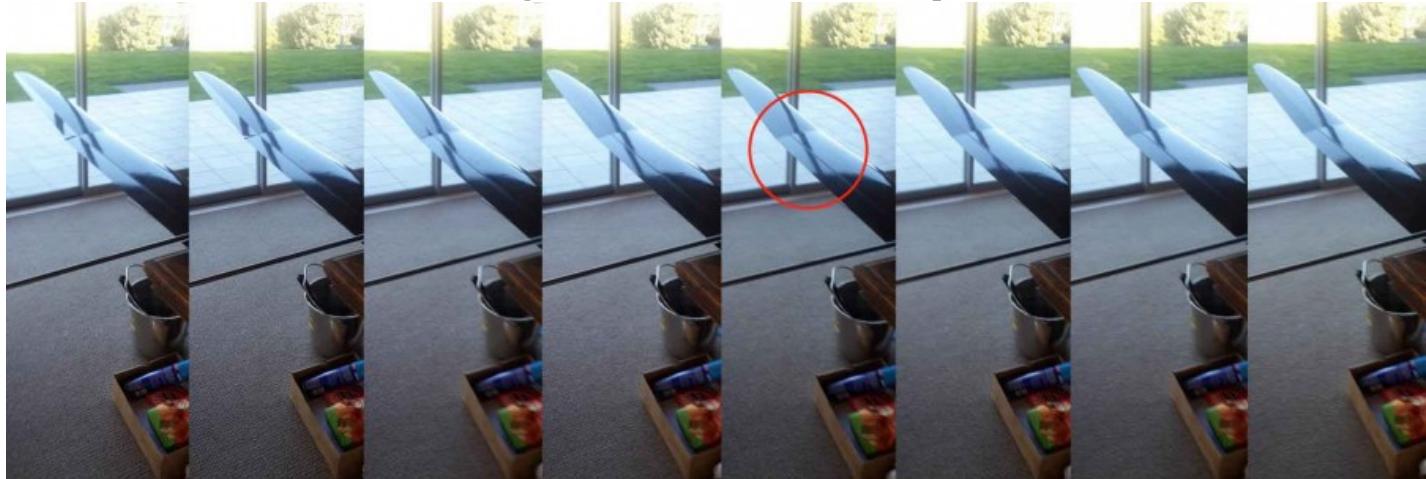
Aileron horn installation







Wing reflection for various aileron inputs



...Another item of interest is the aileron differential. I have found it best to use differential on the outboard ailerons only. The inboard ailerons should have zero differential for best handling qualities (IMO).

A big question is how to find where to set the trailing edge. I use reflections to find the cruise position. I've been using this method on various planes for many years. The usual thing is to use reflections off of the upper wing surface to define when the trailing edge is tangent to the wing. This is actually quite easy to do. It turns out that the inverted V tail helps out with the reflections as it is good to use something that is at an angle to the hinge line to generate the reflections. See the attached pictures for reflections on the wing as viewed from various perspectives with some trailing edge movement. One can define the neutral point to within a mm easily via looking at the reflections on the wing and control surface...

I am still sorting out the best thermal camber. I suspect that this is kinda like my Maxa and Snipe, the optimal camber will depend on the turbulence and thermal activity. I am showing two thermal settings, one of which seems to work for active and turbulent air (THERMAL1), and the other is for soft and gentle air (THERMAL2). For my programming, THERMAL1 is on a switch, and I get to THERMAL2 via using a slider on the side of the transmitter to go from THERMAL1 to THERMAL2. That way I can adjust in real time just how much camber I want to use.

The value for the flap deflection for full flaps is not valid... The flap full deflection is about 80 degrees, and is somewhat difficult to measure via a ruler. All of the other measurements are mm vertical distances at the trailing edge. The flap and inboard aileron were measured at the tailboom location. The outboard aileron was measured at the inboard edge of the outboard aileron.

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