



FOAM, GLUE, TAPE AND A LITTLE IMAGINATION....



(RC Model Airplane Construction Plans)

rcFoamFighters

FF-21 "Blackjack" Basic Template

(Design by Ken Tanpinco June-July 2010)

(CAD Drawing by Paul Petty - Sept. 2010)

(Template Rev 1.0 - Copyright Ken Tanpinco of rcFoamFighters)

FREE PLAN - NOT TO BE SOLD

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(Contact rcFoamFighters at: admin@rcfoamfighters.com)

(Please Visit Our Blog at: <http://rcfoamfighters.com/blog/>)

Basic Specs as built by rcFoamFighters:

Wingspan: 21 Inches

Length: 25.6 Inches

All Up Weight (AUW): 16.5 to 17oz.

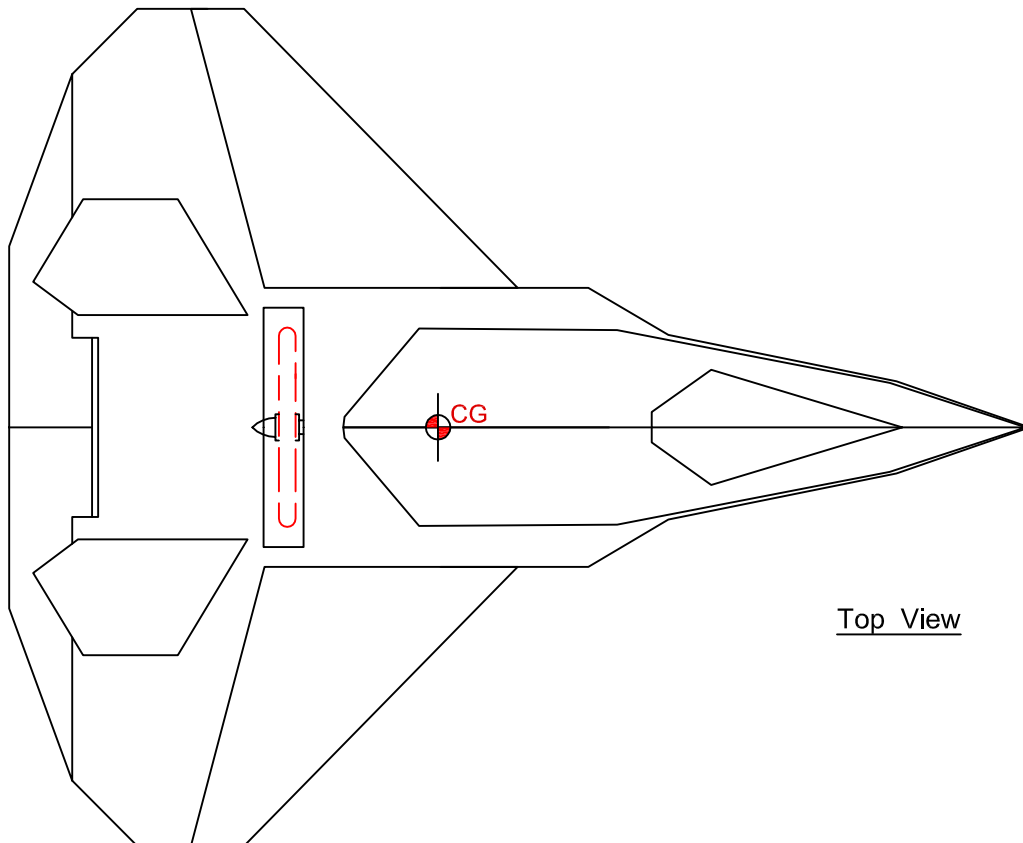
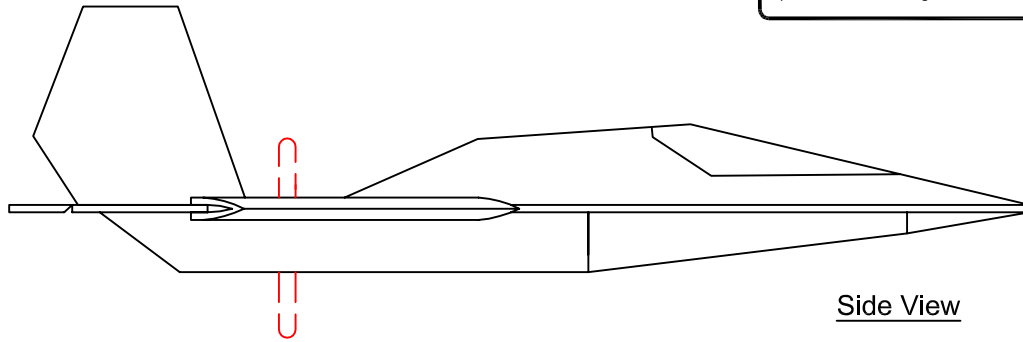
Tested Top Speed: 65mph to 90+mph (Depending on power system)

Note, weight and top speed may vary depending on materials, motor, battery and electronics used. This plane was originally designed to be built from Foamboard. It should be possible to use Depron Foam or Blue Core Fan Fold Foam to build this plane too..

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Recommend Parts:

BASIC SETUP (65+mph)

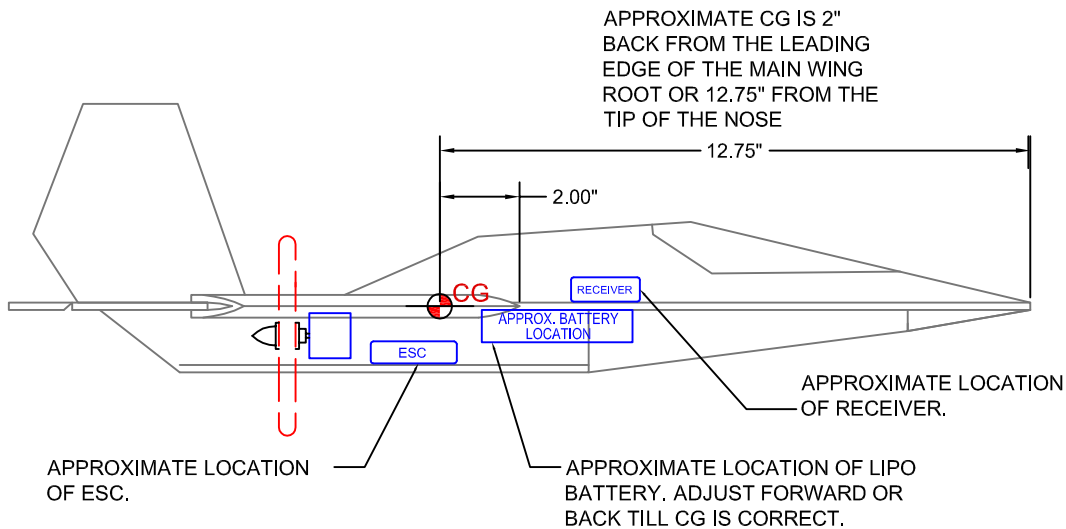
Motor: 3500KV Brushless Outrunner
 ESC: TURNIGY 40A Brushless ESC
 Prop: APC 4.75x4.75
 Battery: 1800mA 3S (30C or better recommended)
 Servos: 2 Each Metal Gear
 Radio & Receiver: Any 4-channel or better (2.4ghz preferred)

PERFORMANCE SETUP (90+mph)

Motor: TURNIGY H2218-2500KV Brushless Outrunner
 ESC: TURNIGY 60A Brushless ESC
 Prop: APC 5x5
 Battery: 1500mA 4S (40C recommended)
 Servos: 2 Each Metal Gear
 Radio & Receiver: Any 4-channel or better (2.4ghz preferred)

Disclaimer (Please Read):

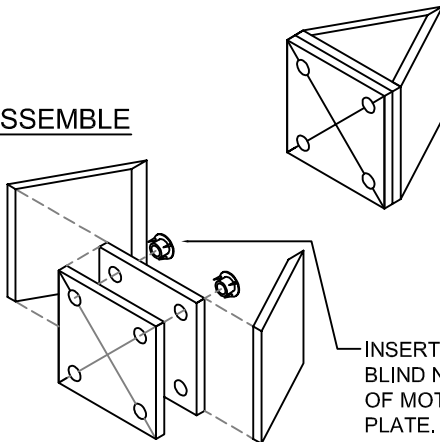
- This is a design template for a high performance, high speed RC aircraft. This plane should only be built and flown by experienced pilots with adequate skill to fly fast, maneuverable planes.
- **DO NOT fly this plane where it can endanger people, livestock or property.**
- **ANY PERSONS DECIDING TO BUILD AND FLY THIS PLANE DOES SO AT HIS/HER OWN RISK AND LIABILITY. RCFOAMFIGHTERS ASSUMES NO RESPONSIBILITY FOR THE PERFORMANCE OF THIS PLANE.**
- This plane should only be launched via the side launch method. Do not attempt to launch from the top or bottom of the fuselage. Doing so can cause **EXTREME BODILY HARM** if any hand or body part comes into contact with the fast spinning propeller.
- All minors should fly under the supervision of an adult or guardian.



PUSHER TYPE MOTOR MOUNT OPTION

SCRATCH BUILT BASSWOOD MOTOR MOUNT
 (MADE FROM 3/32" BASSWOOD SHEETS)

ASSEMBLE



ASSEMBLE AS SHOWN. USE EPOXY OR OTHER ADHESIVE TO GLUE TOGETHER.

INSERT 4 EACH, 4-40 BLIND NUTS INTO BACK OF MOTOR MOUNT PLATE. INSURE HOLE PATTERN IS DRILLED TO MATCH MOTOR TO BE USED. (USE 4 EACH 4-40 HEX BOLTS TO SECURE MOTOR TO MOUNT.)

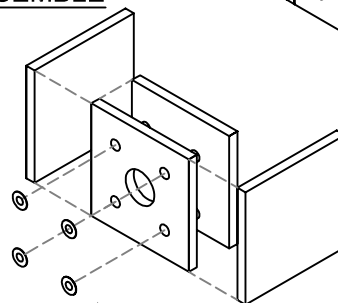
MOUNT

HELI MOTOR MOUNT OPTION

SCRATCH BUILT BASSWOOD MOTOR MOUNT
 (MADE FROM 3/32" BASSWOOD SHEETS)

ASSEMBLE

ASSEMBLE AS SHOWN. USE EPOXY OR OTHER ADHESIVE TO GLUE TOGETHER.



INSURE HOLES IN MOUNT ARE PROPERLY SPACED TO MATCH YOUR MOTOR. USE WASHERS ON BACK SIDE. THEN USE PROPER MOTOR SIZE BOLTS TO SECURE THE MOTOR.

MOUNT

TEMPLATE ASSEMBLY KEY PLAN

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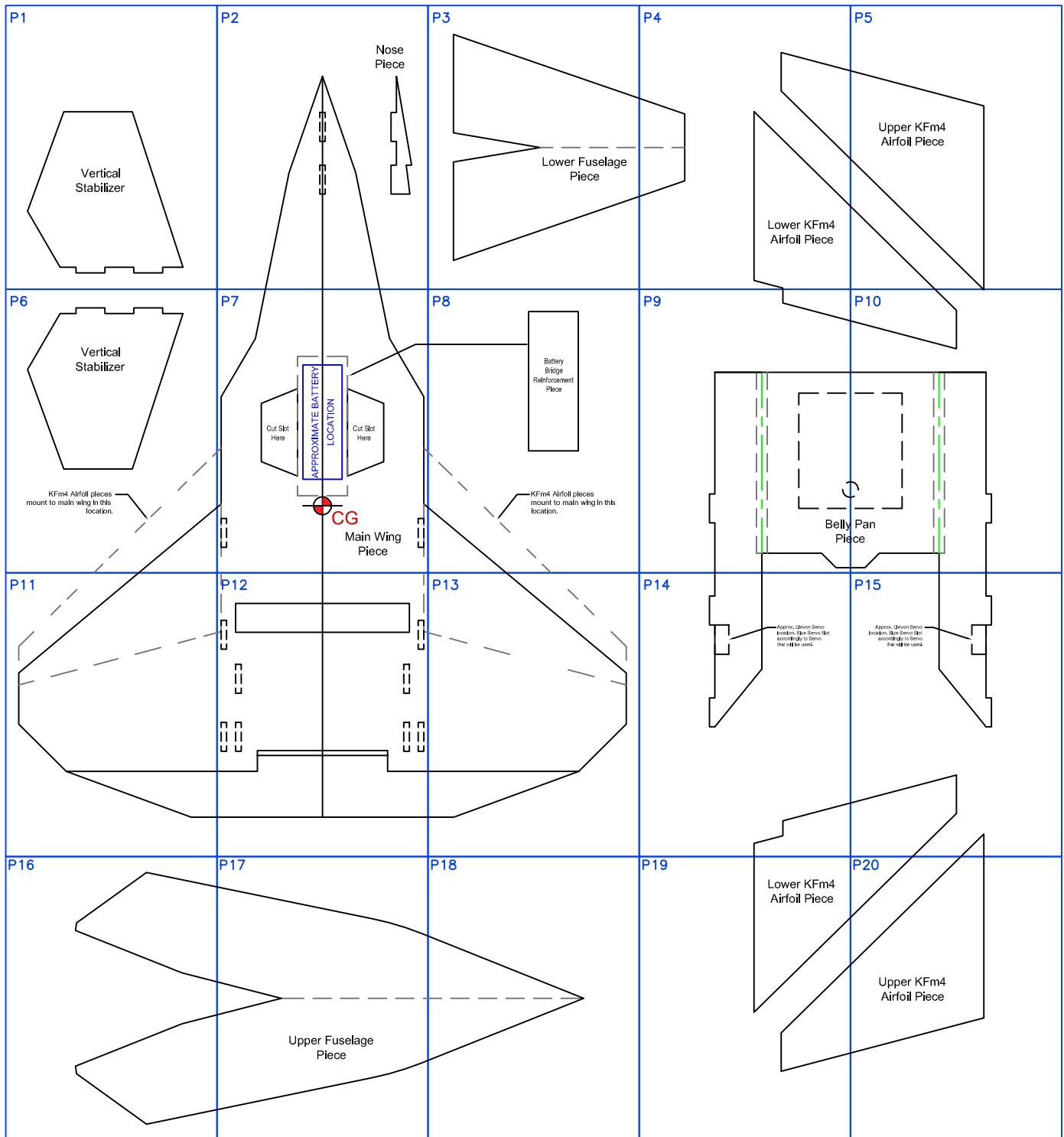
(Design by Ken Tanpinco June-July 2010)

(CAD Drawing by Paul Petty - Sept. 2010)

(Template Rev 1.0 - Copyright Ken Tanpinco of rcFoamFighters)

INSTRUCTIONS:

PRINT ALL TEMPLATE SHEETS. CUT AND ASSEMBLE AS SHOWN BELOW. USE SCOTCH TAPE TO SECURE SHEETS TOGETHER.



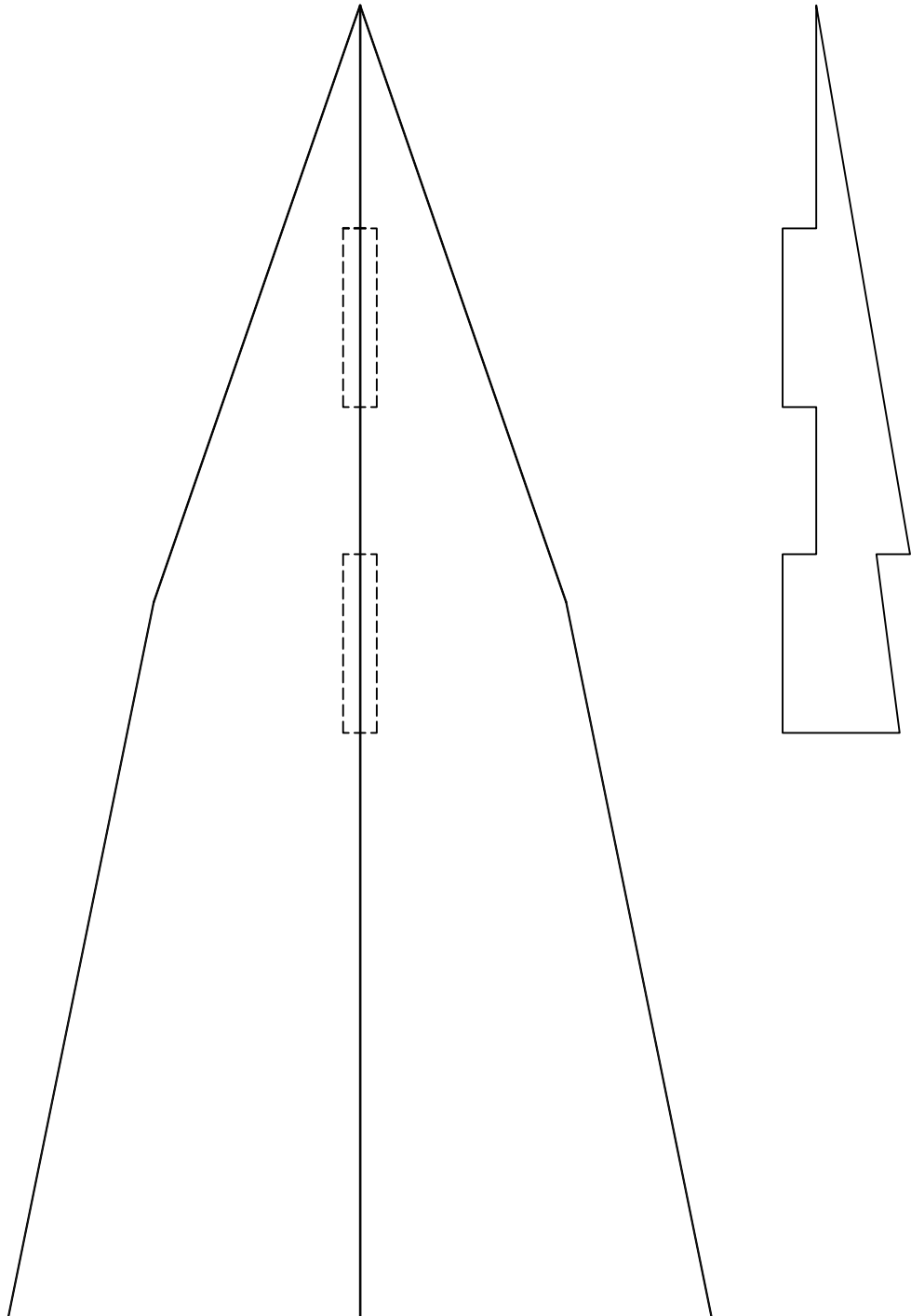
P1



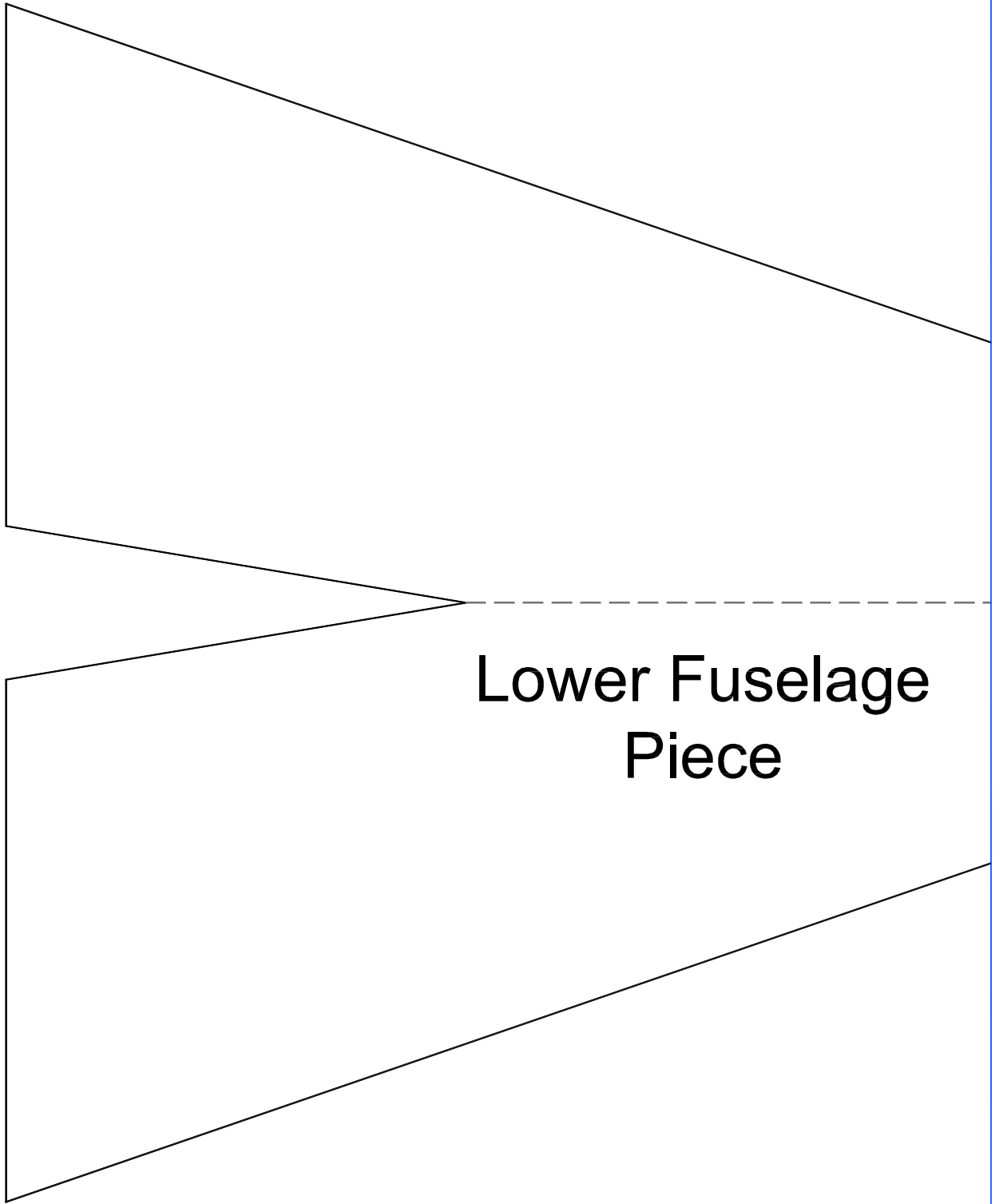
**Vertical
Stabilizer**

P2

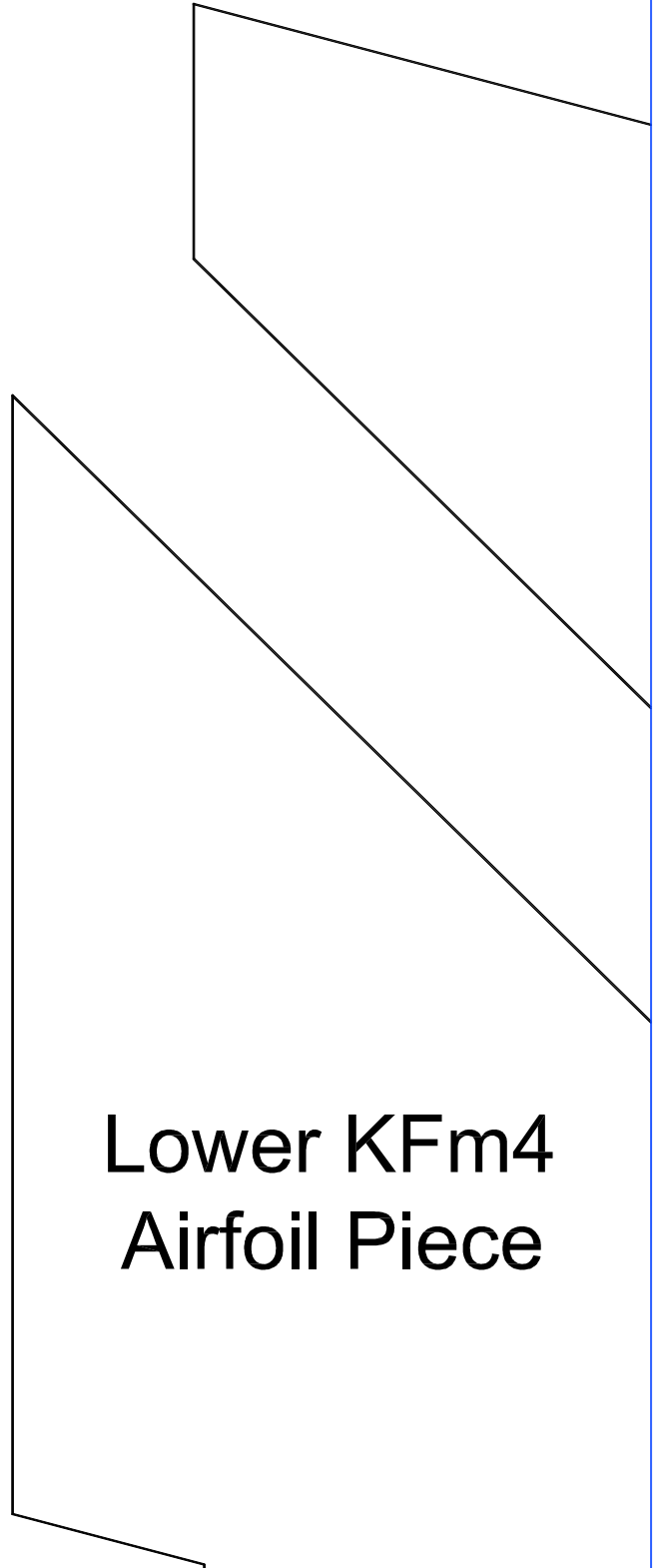
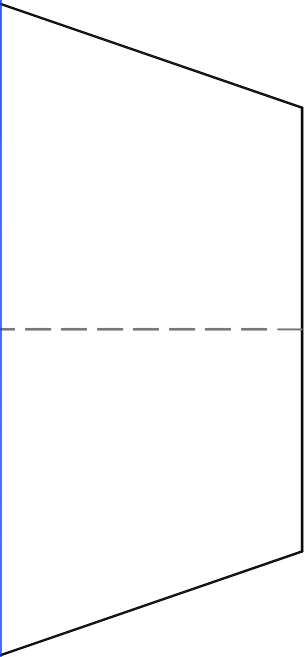
**Nose
Piece**



P3



P4



**Lower KFm4
Airfoil Piece**

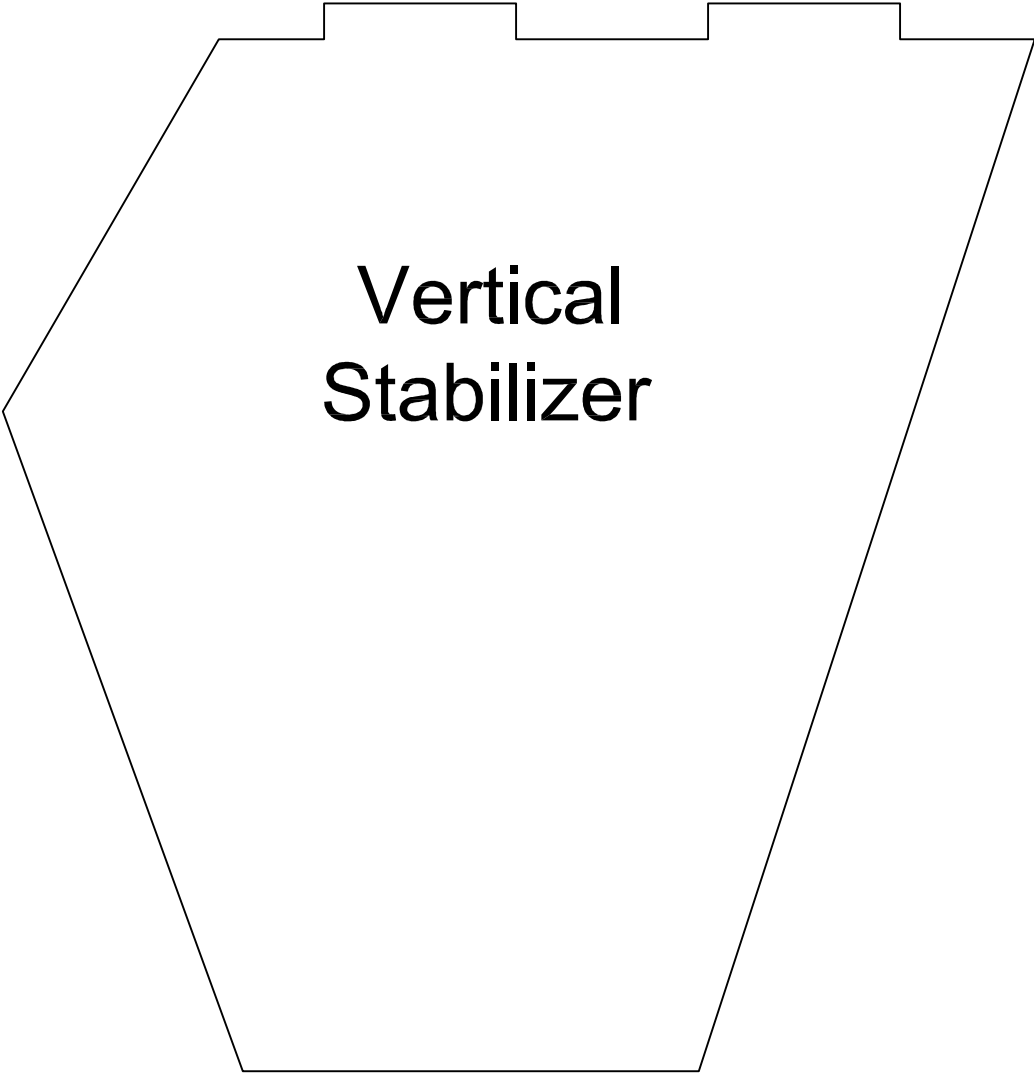
P5

**Upper Kfm4
Airfoil Piece**

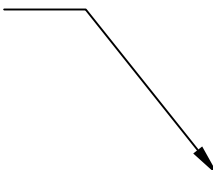


P6

Vertical Stabilizer



KFm4 Airfoil pieces
mount to main wing in this
location.

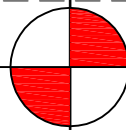


P7

Cut Slot
Here

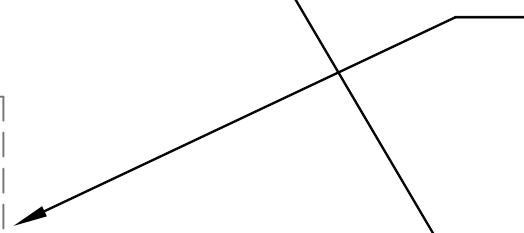
APPROXIMATE BATTERY
LOCATION

Cut Slot
Here



CG

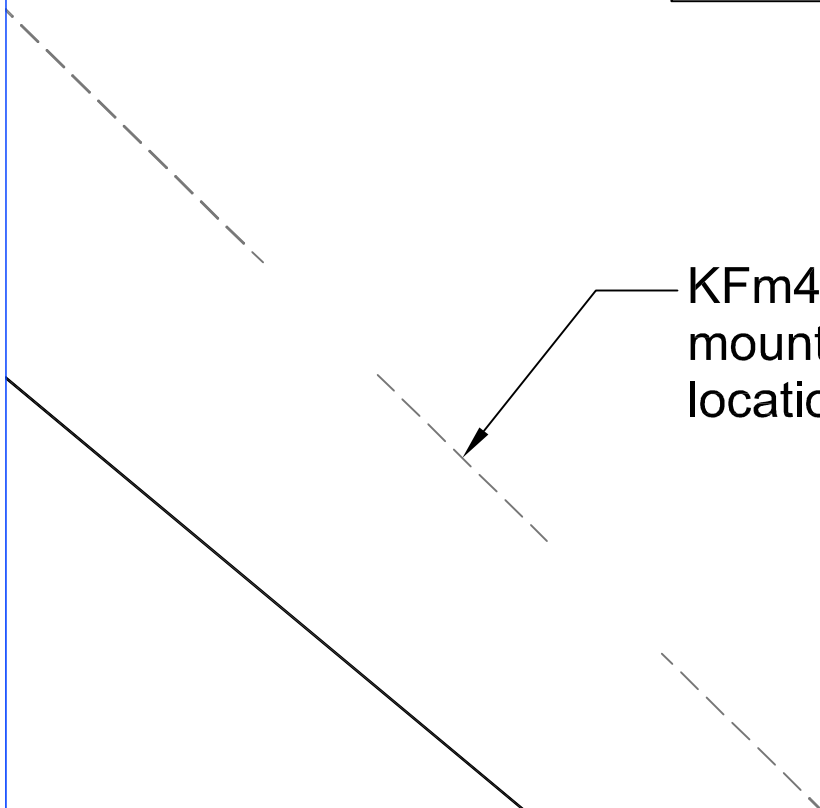
Main Wing
Piece



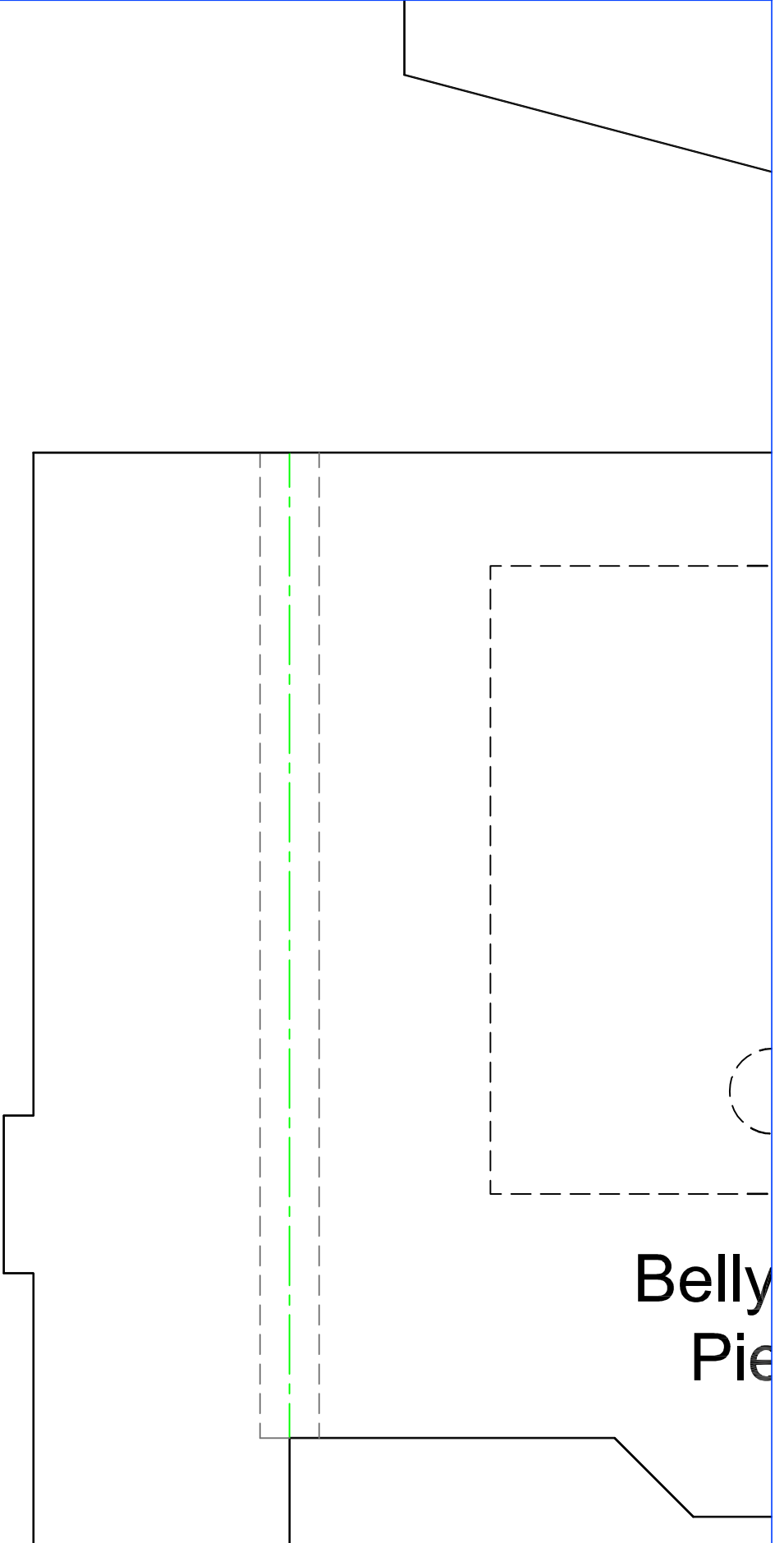
P8

Battery
Bridge
Reinforcement
Piece

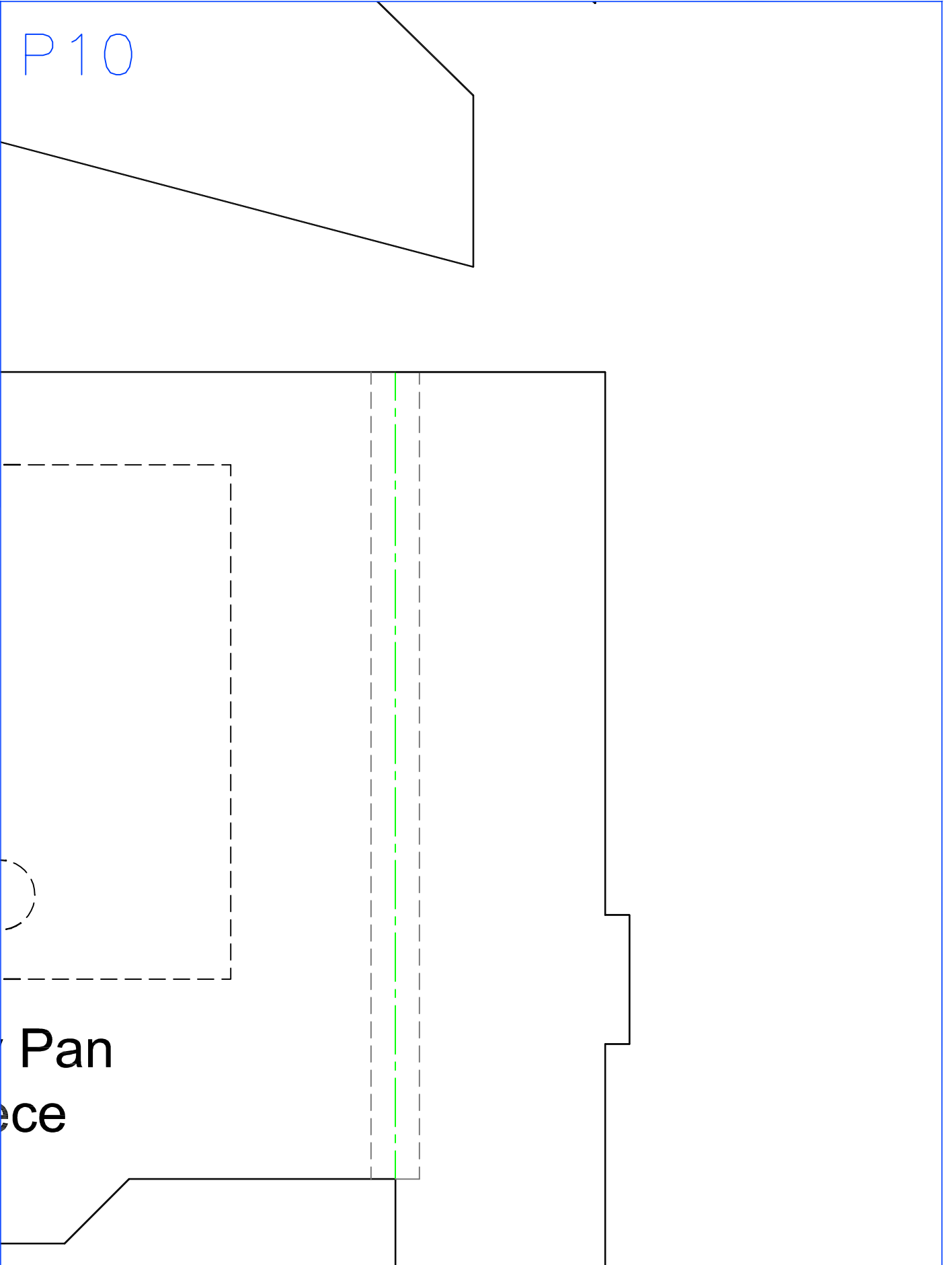
KFm4 Airfoil pieces
mount to main wing in this
location.



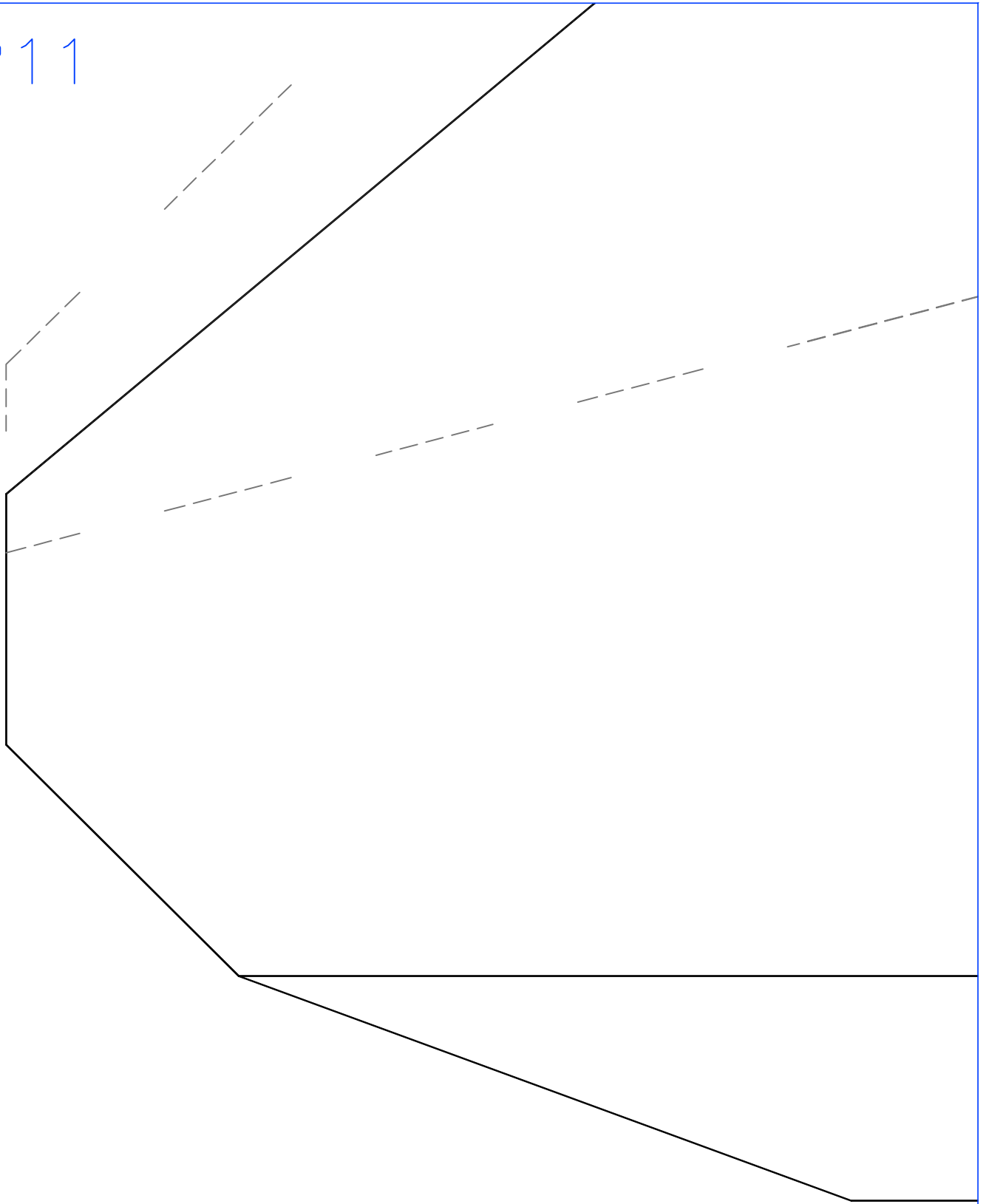
P9



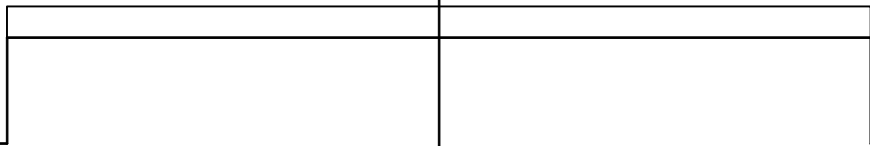
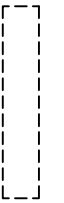
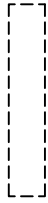
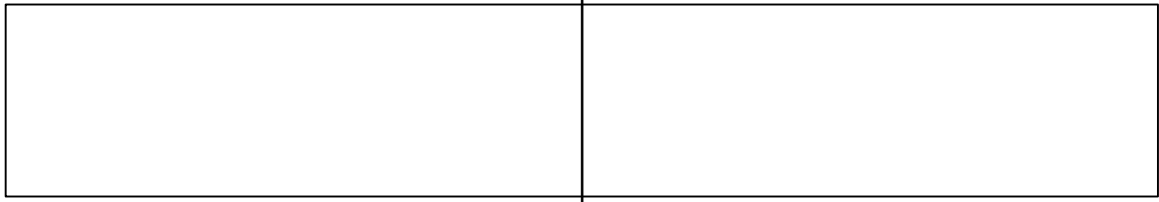
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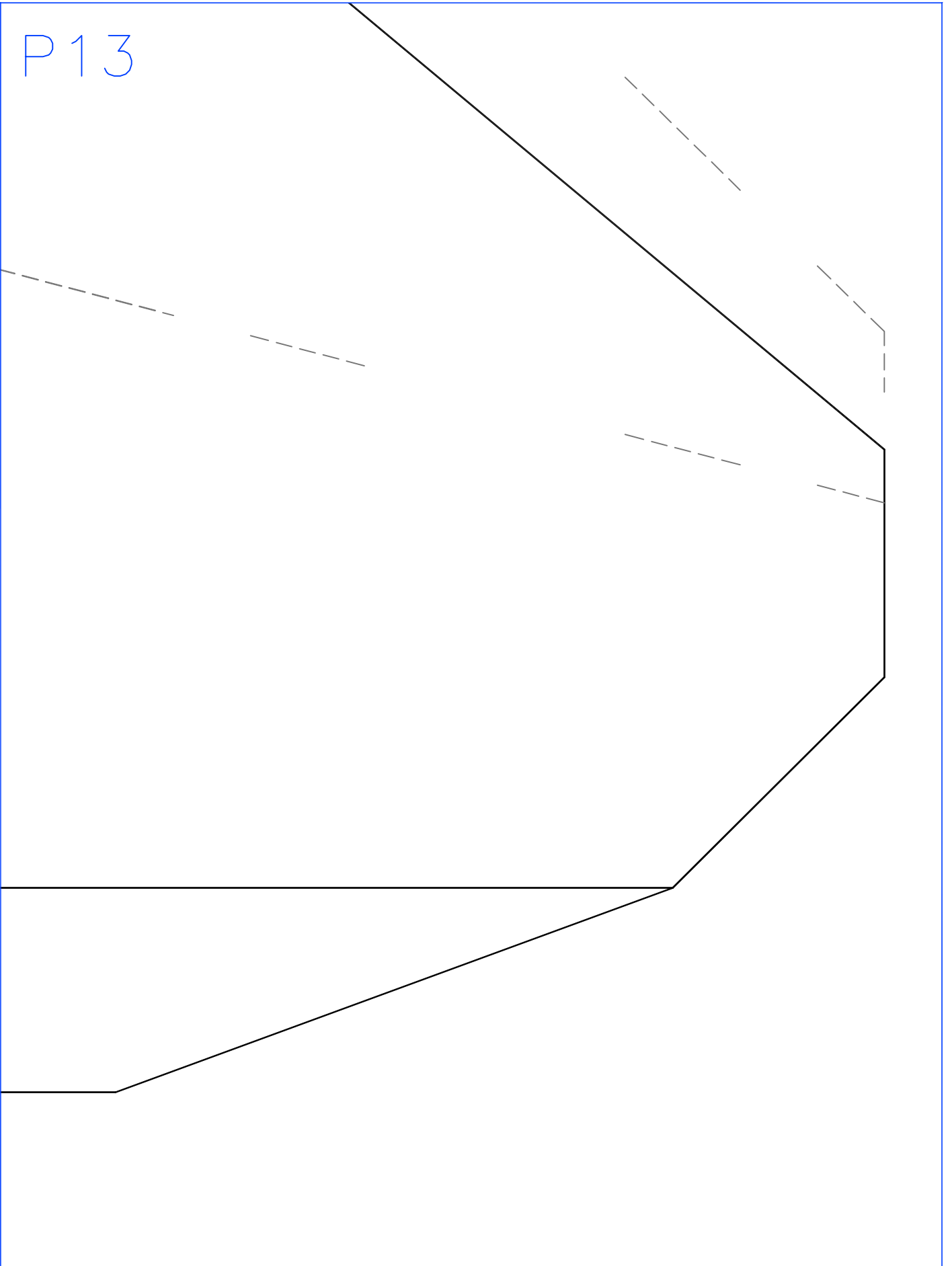
P 11



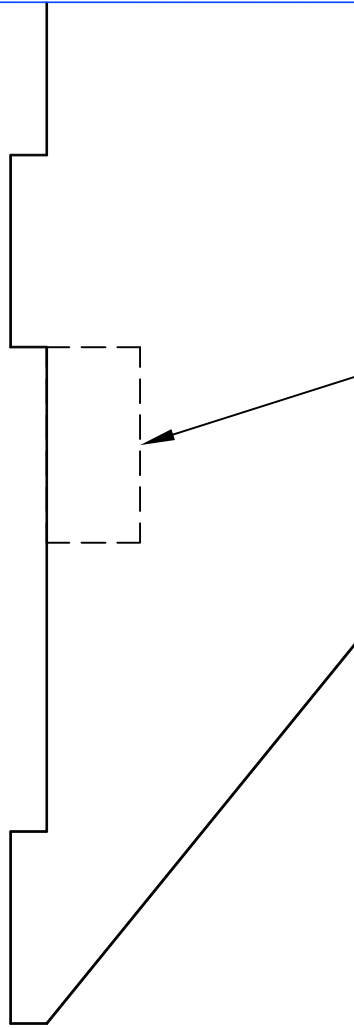
P 12



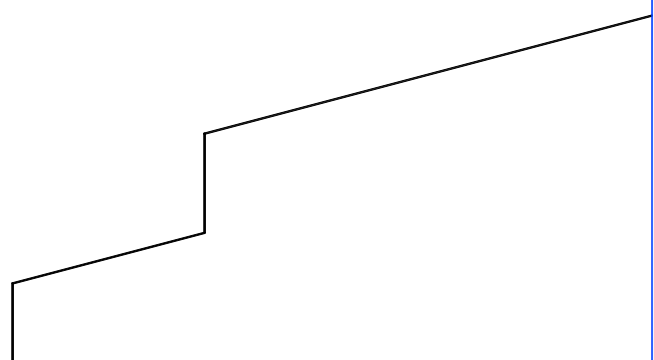
P13



P14

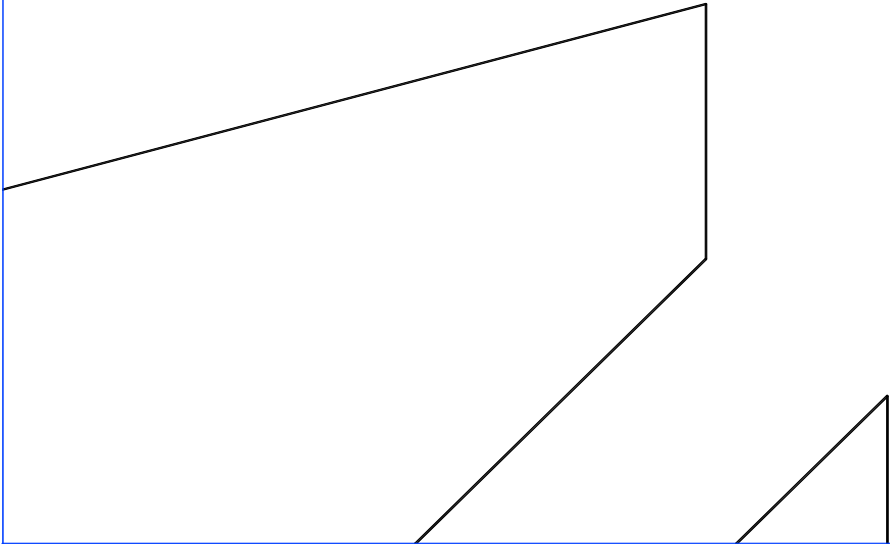
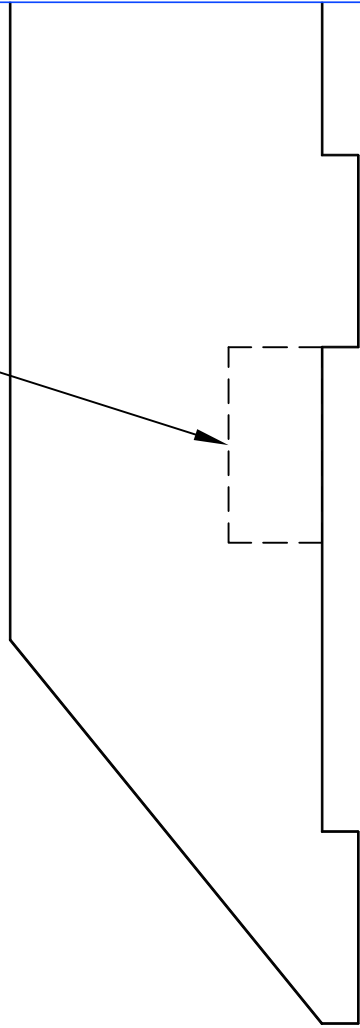


Approx. Elevon Servo location. Size Servo Slot accordingly to Servo that will be used.

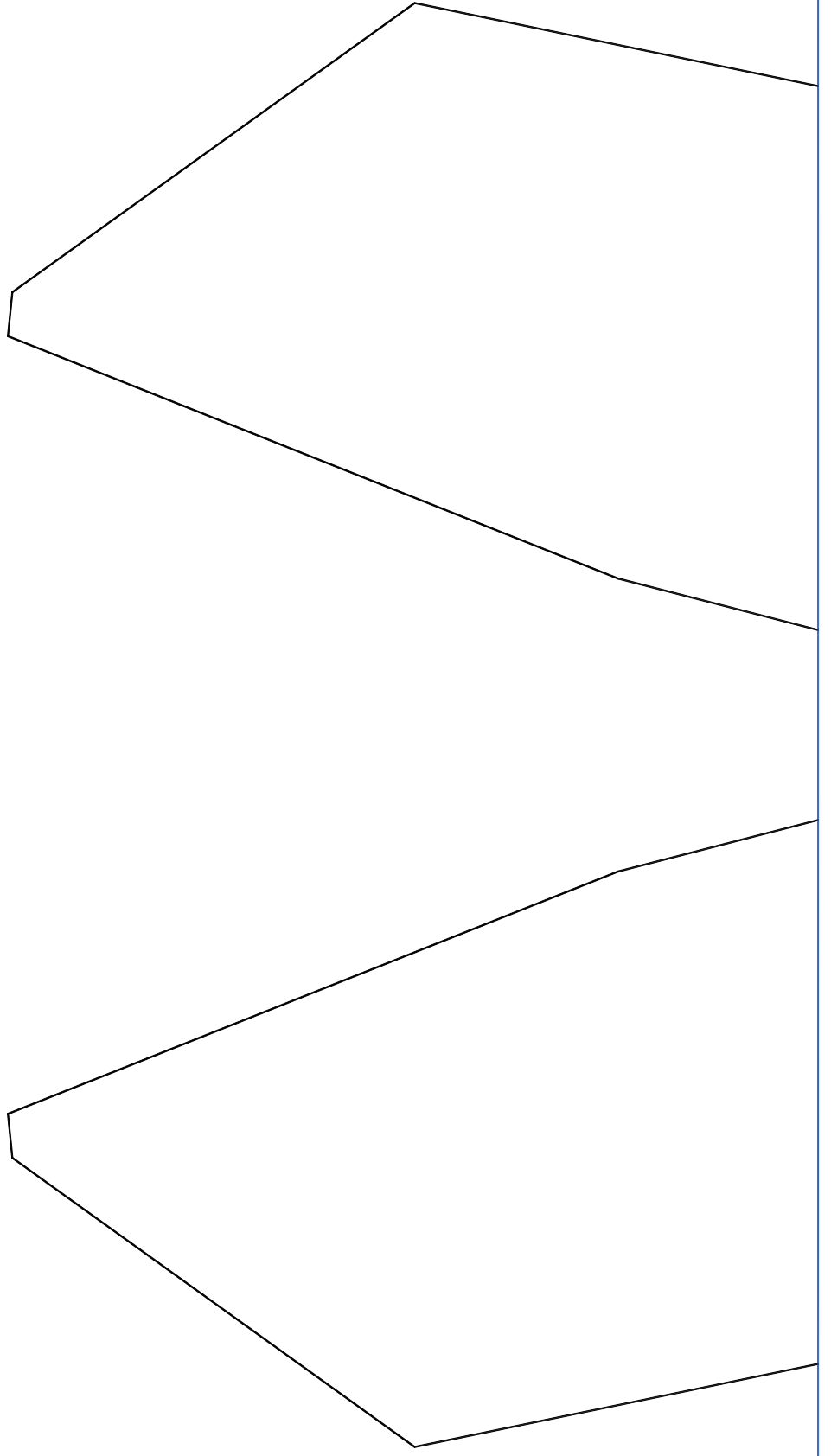


P15

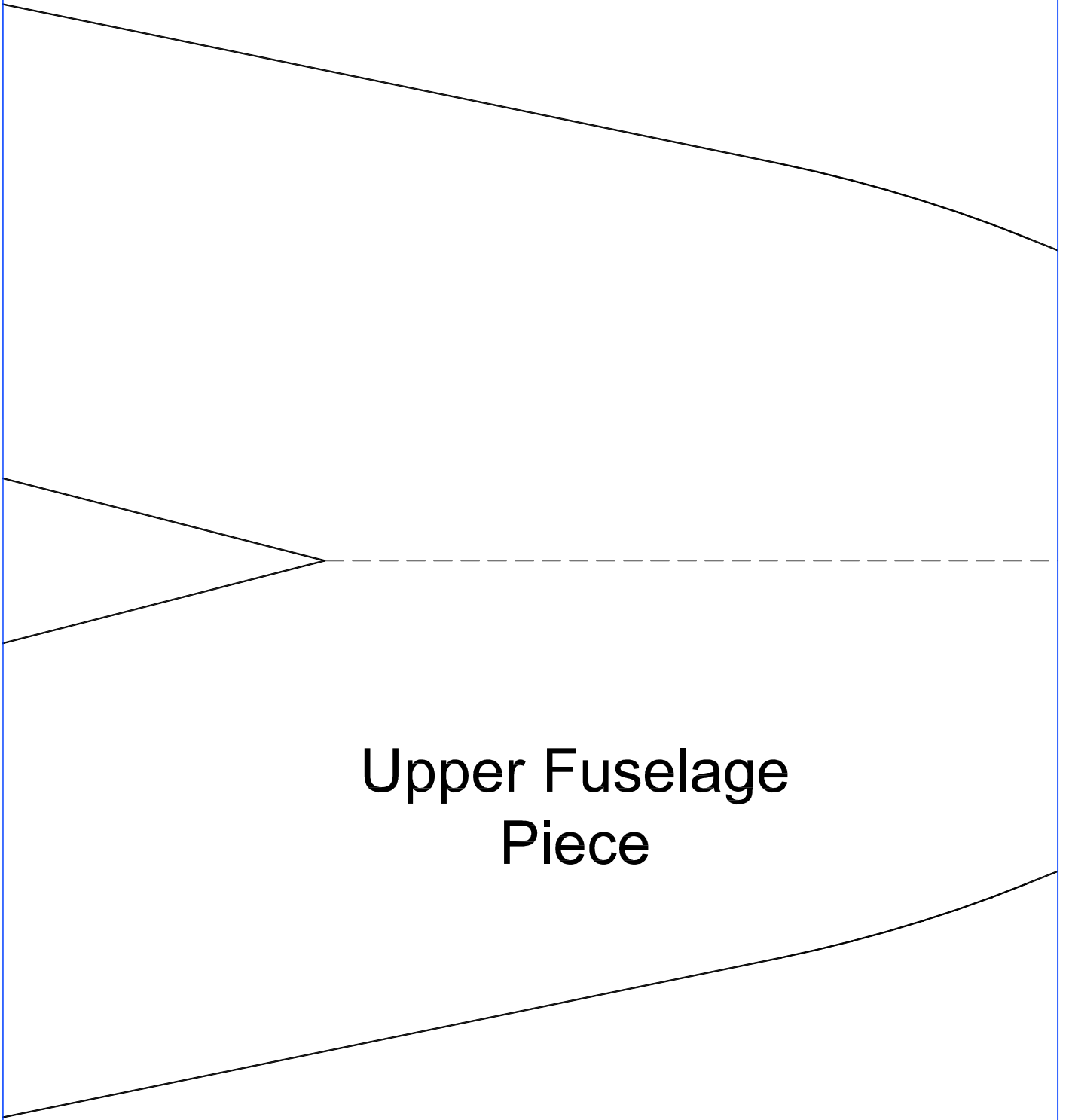
Approx. Elevon Servo location. Size Servo Slot accordingly to Servo that will be used.



P16

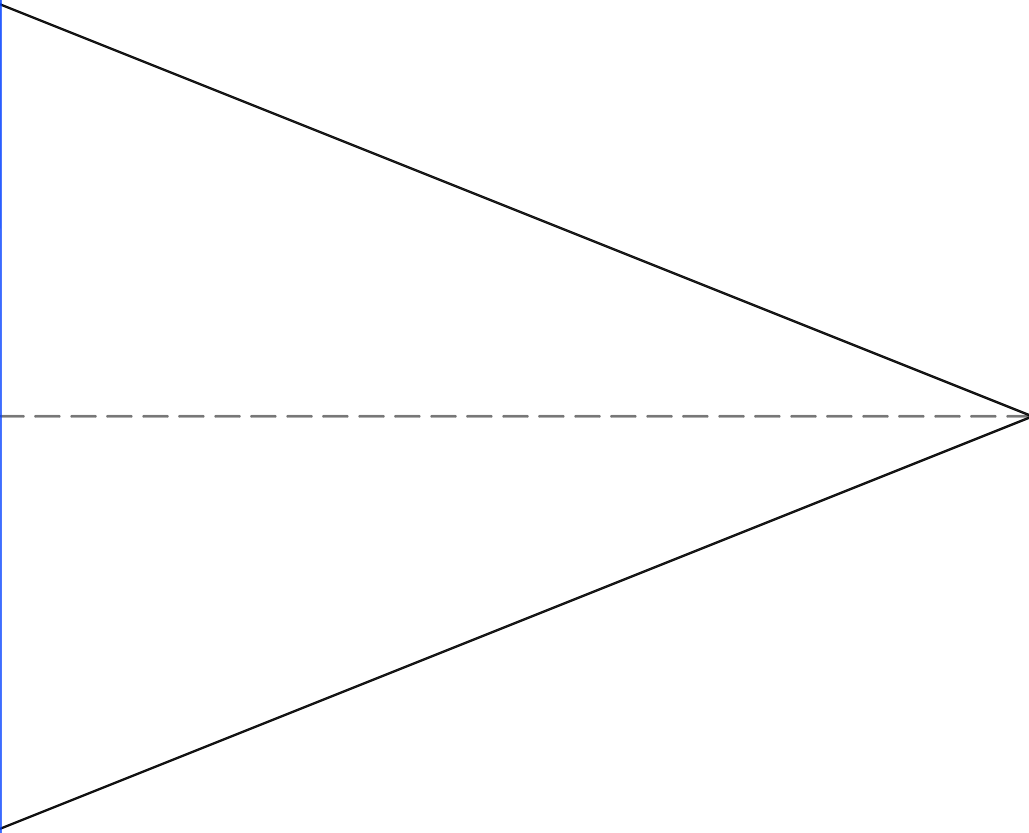


P17



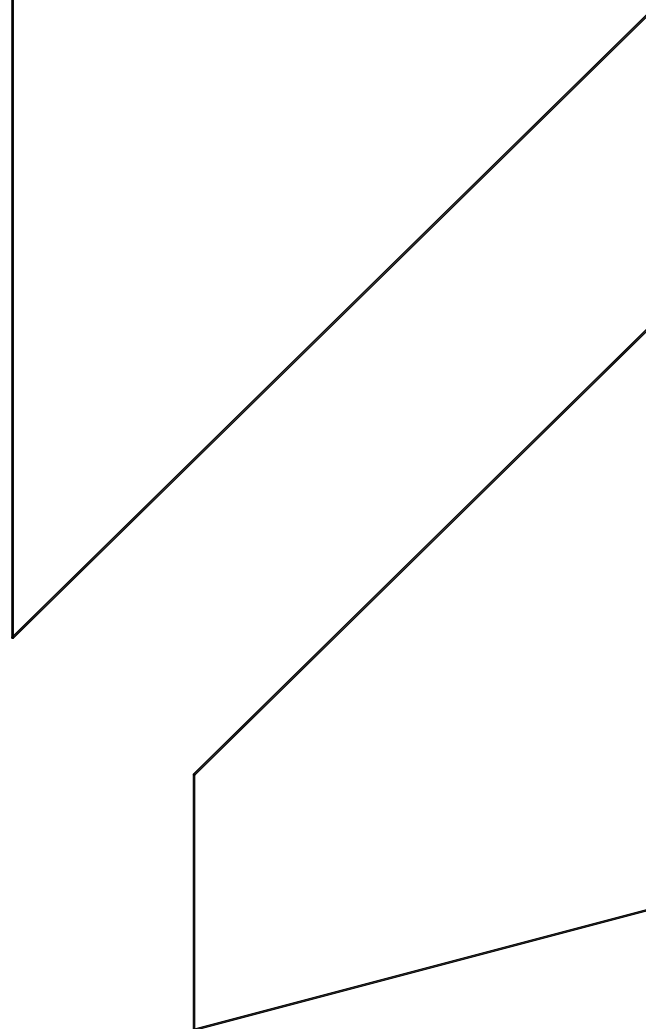
Upper Fuselage
Piece

P18



P19

Lower KFm4 Airfoil Piece



P20

**Upper KFM4
Airfoil Piece**