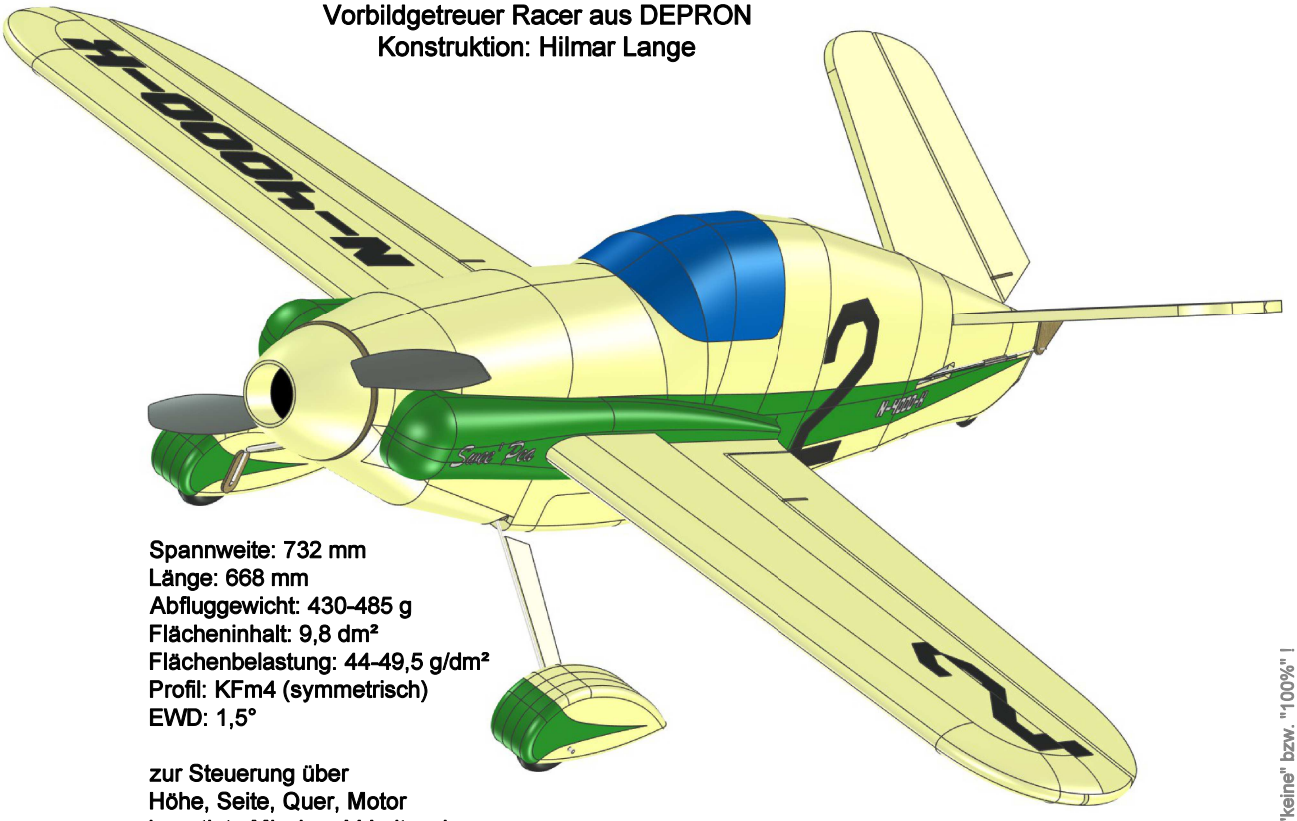
Art Chester's

Swee' Pea

Vorbildgetreuer Racer aus DEPRON
Konstruktion: Hilmar Lange



Spannweite: 732 mm
Länge: 668 mm
Abfluggewicht: 430-485 g
Flächeninhalt: 9,8 dm²
Flächenbelastung: 44-49,5 g/dm²
Profil: KFm4 (symmetrisch)
EWD: 1,5°

zur Steuerung über
Höhe, Seite, Quer, Motor
benötigte Mischer: V-Leitwerk

Benötigte Materialien:

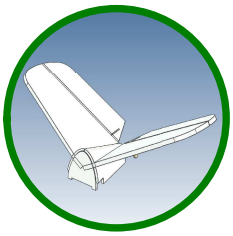
3 mm Depron (1/2 Platte = 800 x 625 mm)
6 mm Depron (1 Platte = 1250 x 800 mm)
4 mm Pappelsperrholz (110 x 110 mm)
1,5 mm Flugzeugsperrholz (130 x 130 mm)
3 mm Balsa (100 x 250 mm)
3 mm CFK-Stab (3x 1 m)
(oder 2x 1 m CFK-Stab ersetzen durch 1 m Kiefernleiste 6 x 3 mm)
0,8 mm Stahldraht (1 m)
2,0 mm Stahldraht (ca. 40 cm)
Schrumpfschlauch Ø 4,8 mm (ca. 10 cm)
Neodym-Rundmagnet Ø 3 mm x 3 mm (10 Stück)
weiche Vlies-Scharniere (12 Stück)

Spinner Ø 62 mm
Propeller APC Slowfly 8 x 6"
4 Servos Hitec HS-40 (5 g)
Empfänger mit 6 Kanälen
Drehzahlsteller der 30-Ampere-Klasse
BL-Motor BL Joker J2830-7 V3 KV1500 / 58 g (Bezug: Lindinger / Art.-Nr. 9748727)
Akku LiPo 3S 850 - 1250 mAh
2 Schaumstoff-Leichträder, Ø 54 - 58 mm

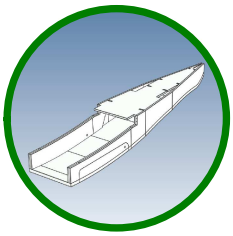
Aufgepasst beim Ausdrucken: stellen Sie im Druckmenü unter "Seiteneinstellungen" die Seitenanpassung auf "keine" bzw. "100%" !

dedicated to Tom Hallman

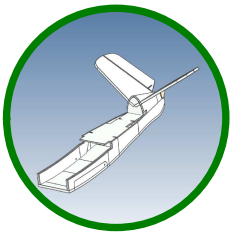
cm



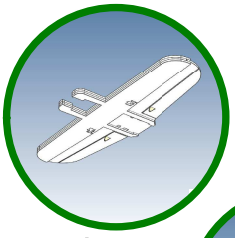
Seite 3



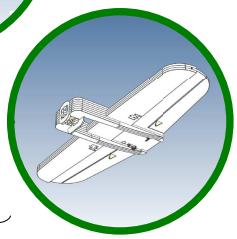
Seite 5



Seite 9



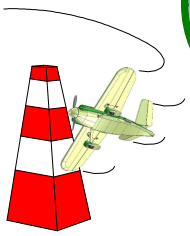
Seite 10

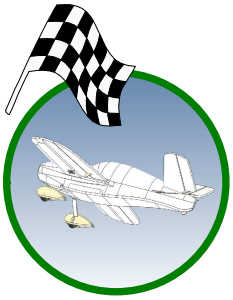


Seite 21

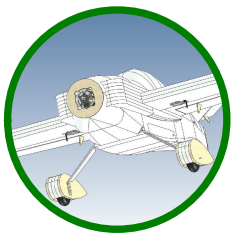
scan me!

Explosionsdarstellung
im 3D-Viewer!

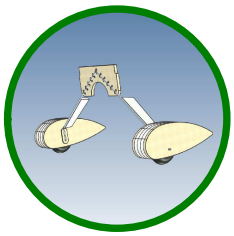




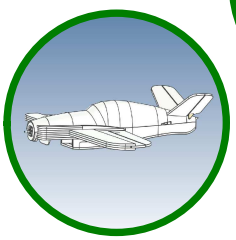
Seite 35



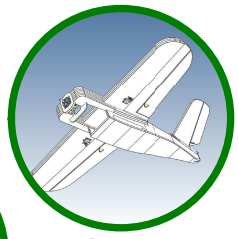
Seite 33



Seite 31

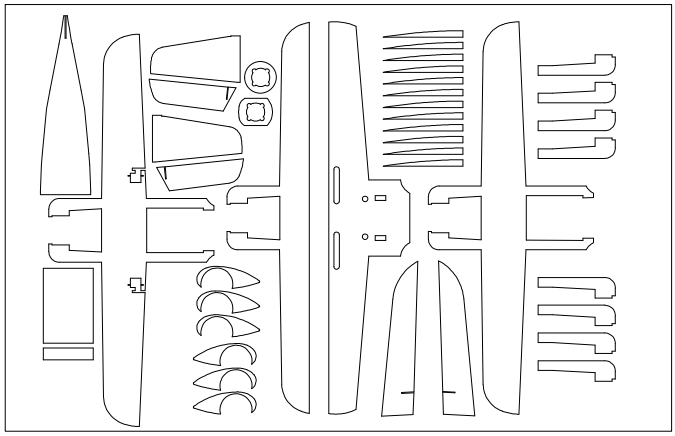


Seite 24

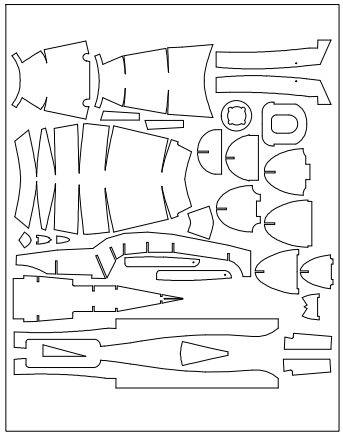


Seite 23

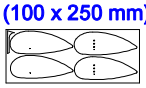
6 mm Depron (1250 x 800 mm = 1 Platte)



3 mm Depron
(800 x 625 mm = 1/2 Platte)



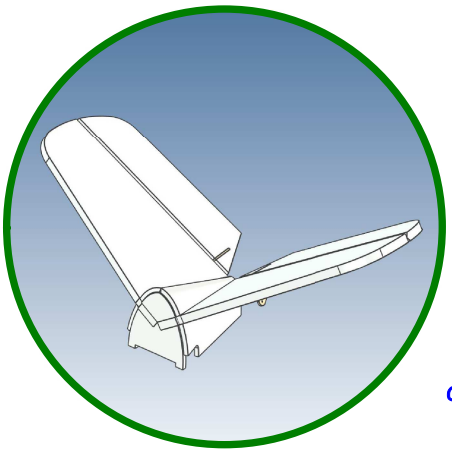
3mm Balsa
(100 x 250 mm)

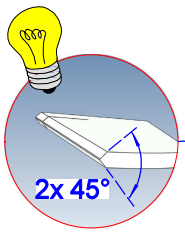


4 mm Pappelsperrholz
(110 x 110 mm)

1,5 mm Flugzeug-
sperrholz
(130 x 130 mm)

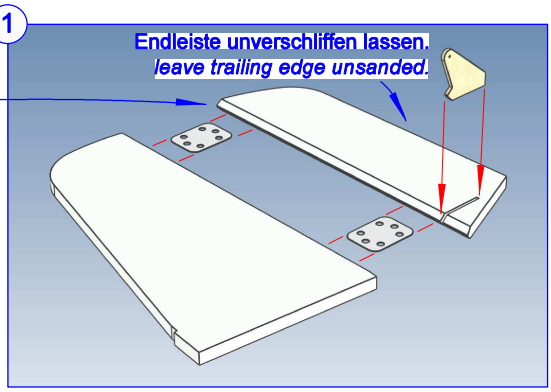
Die abgebildeten 2D-Daten gibt es als DXF unter www.lange-flugzeit.de
The 2D data like shown above is available as DXF at www.lange-flugzeit.de





Vliesscharniere und Ruderhörner mit Weißleim einsetzen.
insert CA hinges and control horns with white glue.

1



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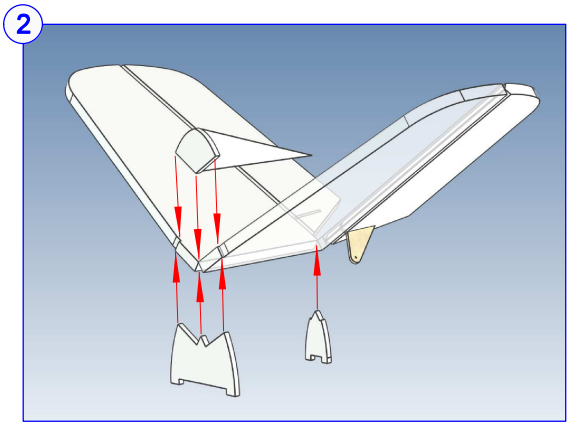

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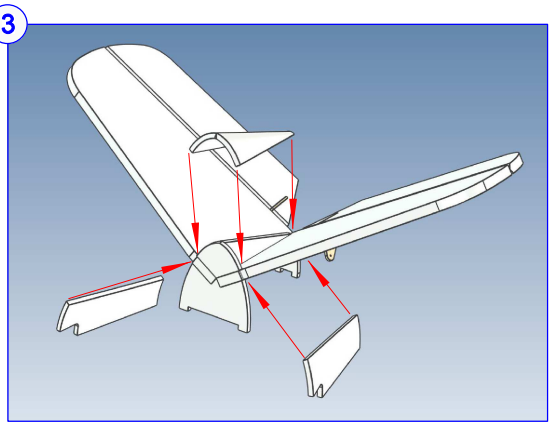
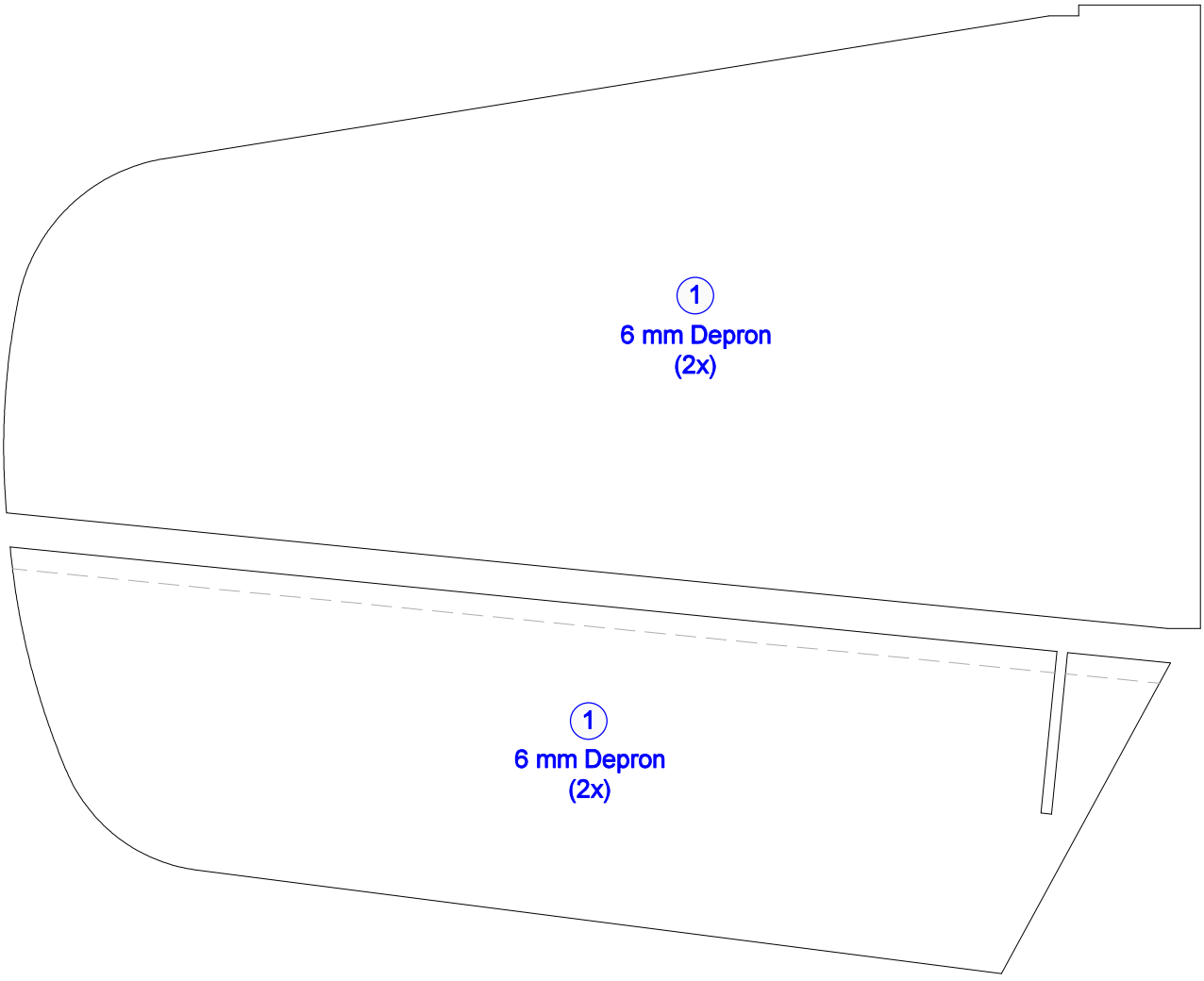
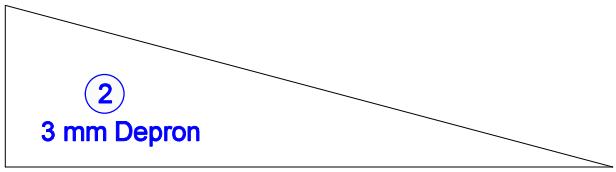
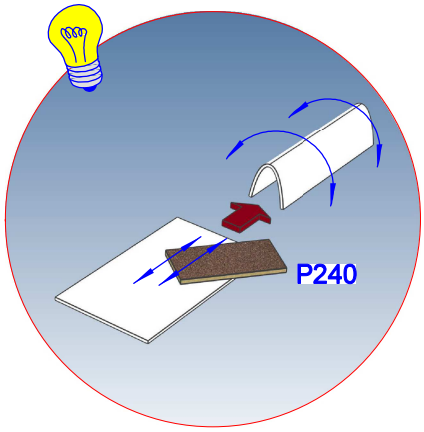


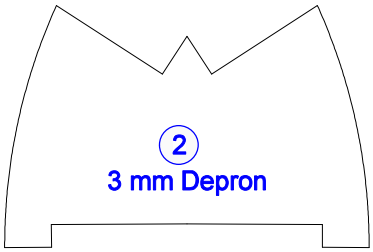




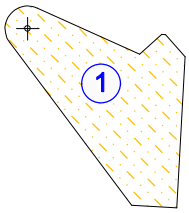


zu biegende Teile vorher beidseitig matt anschleifen!

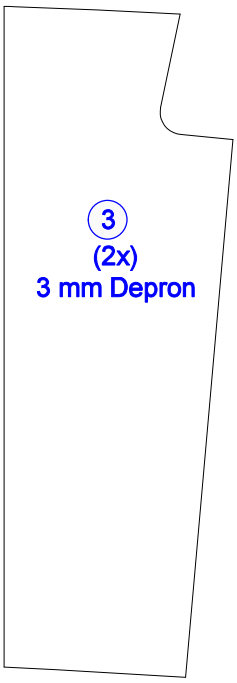
Sand the parts to be bent to a matt finish on both sides beforehand!

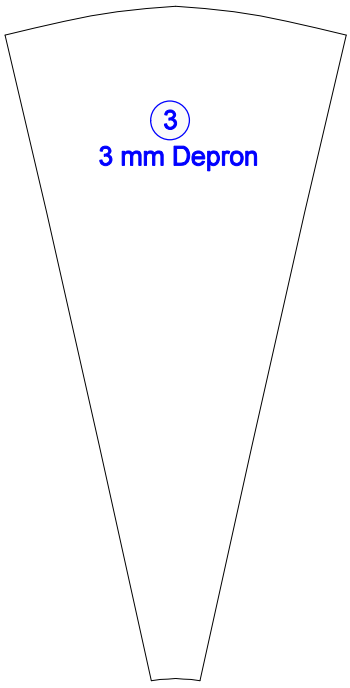


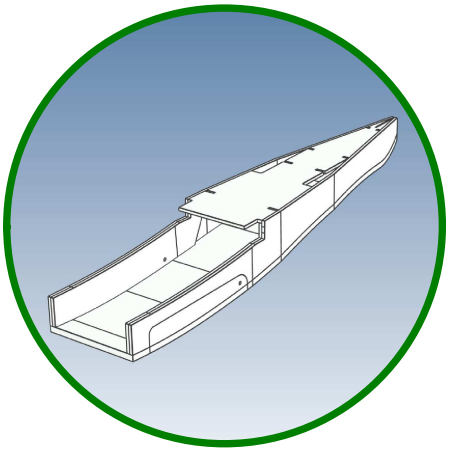
1,5 mm
Flugzeugsperrholz
(2x)



Das Ruderhorn wird insgesamt 4x identisch benötigt (vgl. S. 14).
The control horn is required four times in total (see p. 14).







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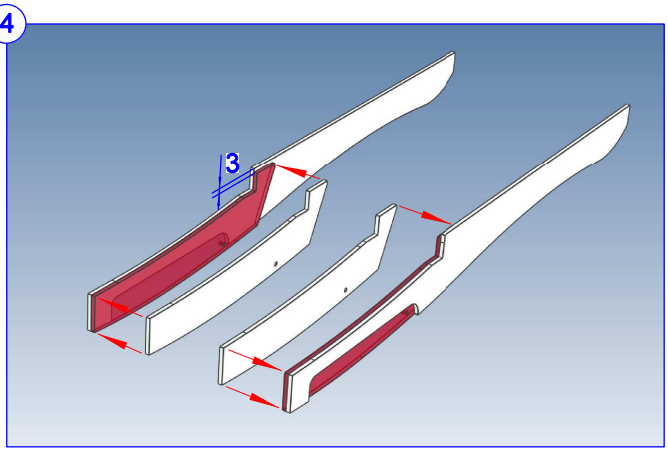
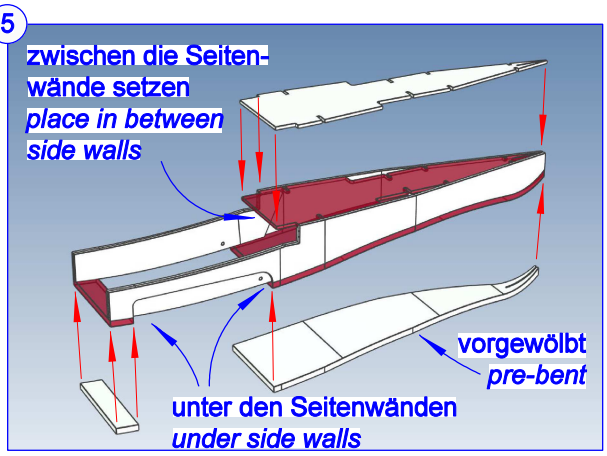
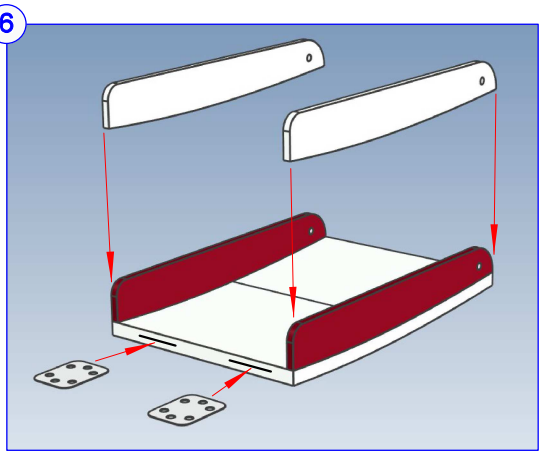

3

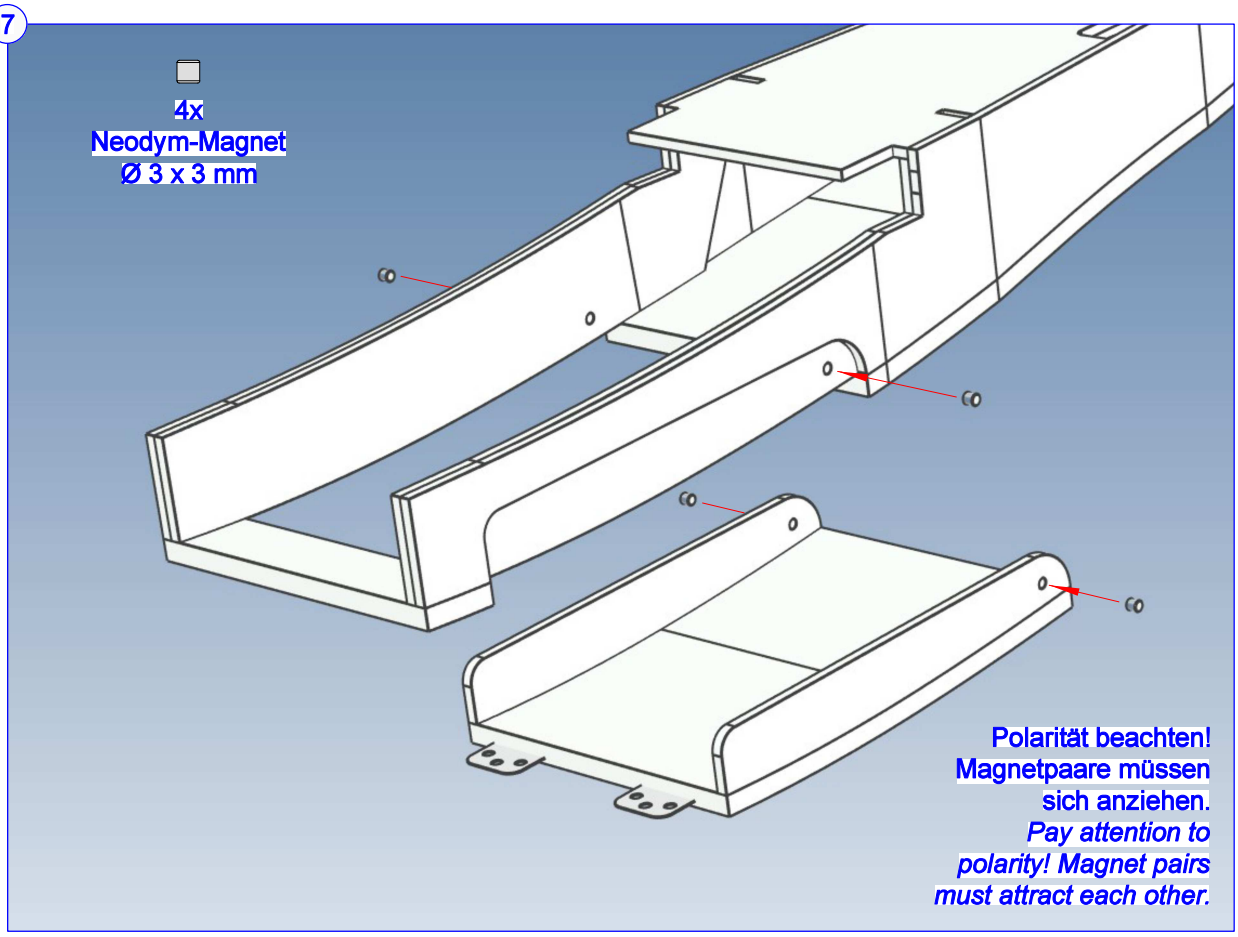
5

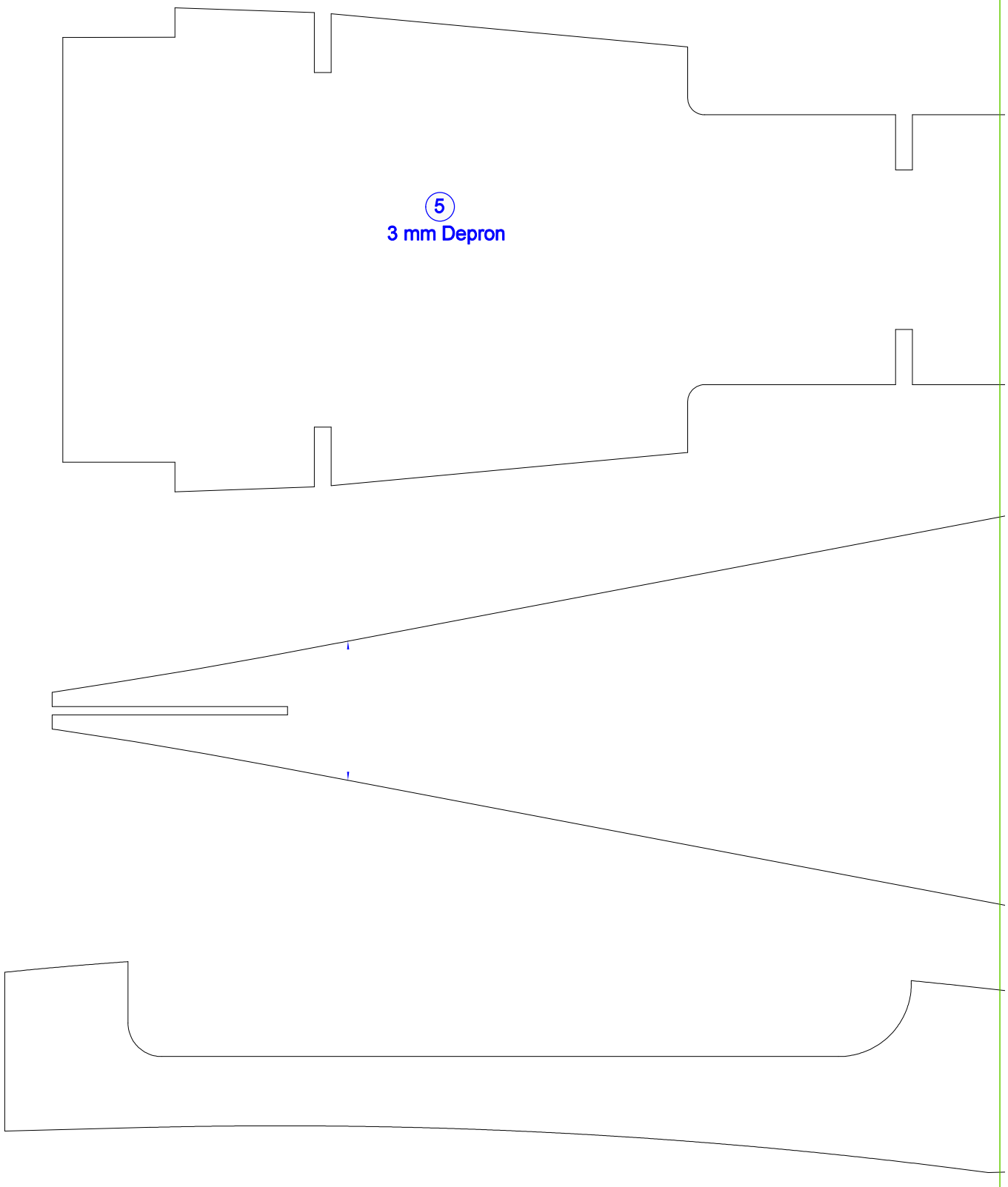

zwischen die Seiten-
wände setzen
place in between
side walls
vorgewölbt
pre-bent
unter den Seitenwänden
under side walls

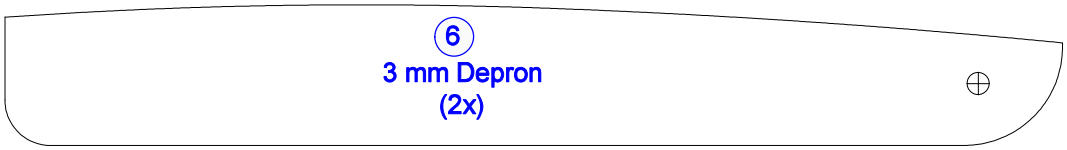
6



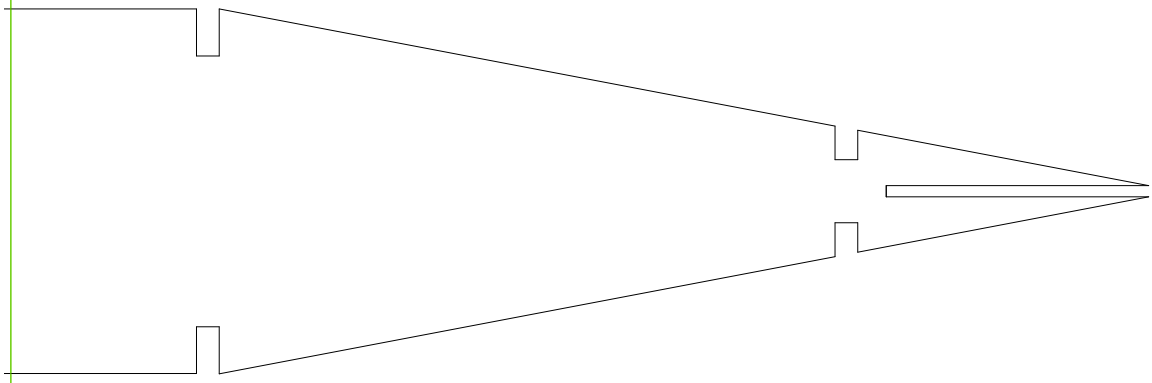
7

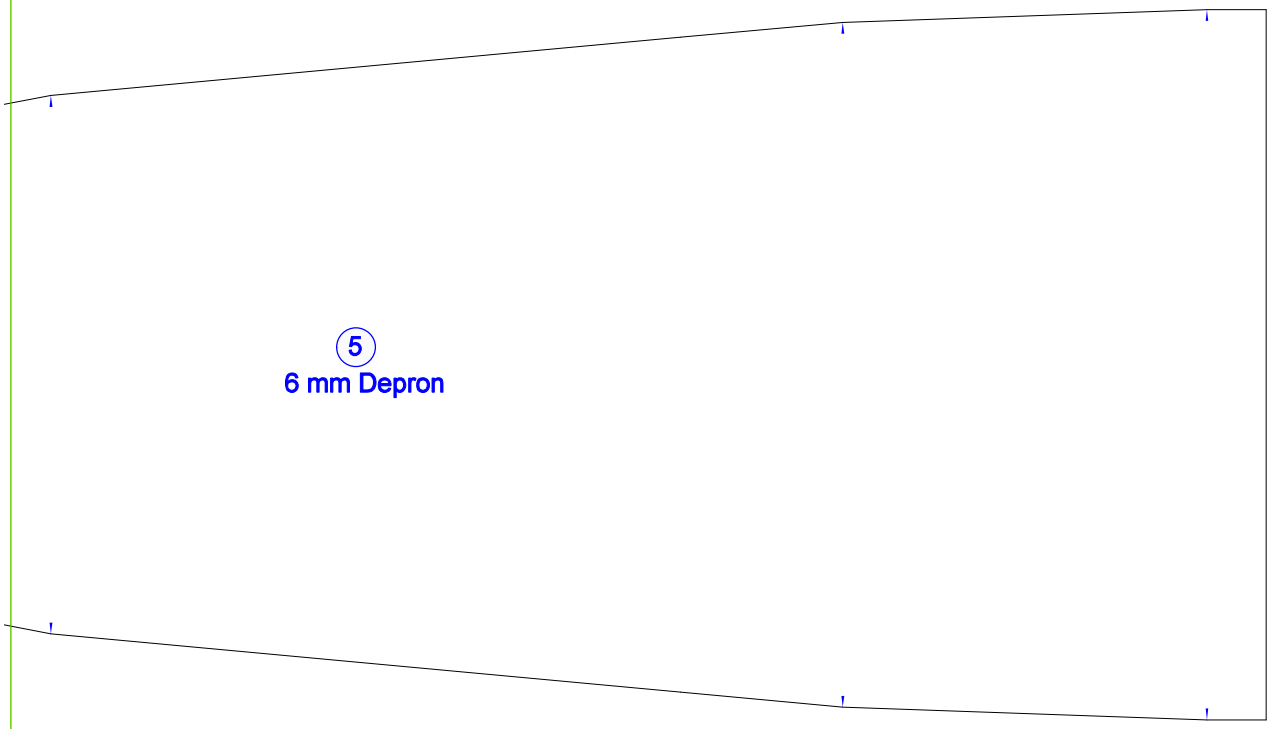

4x
Neodym-Magnet
Ø 3 x 3 mm
Polarität beachten!
Magnetpaare müssen
sich anziehen.
Pay attention to
polarity! Magnet pairs
must attract each other.


5
3 mm Depron

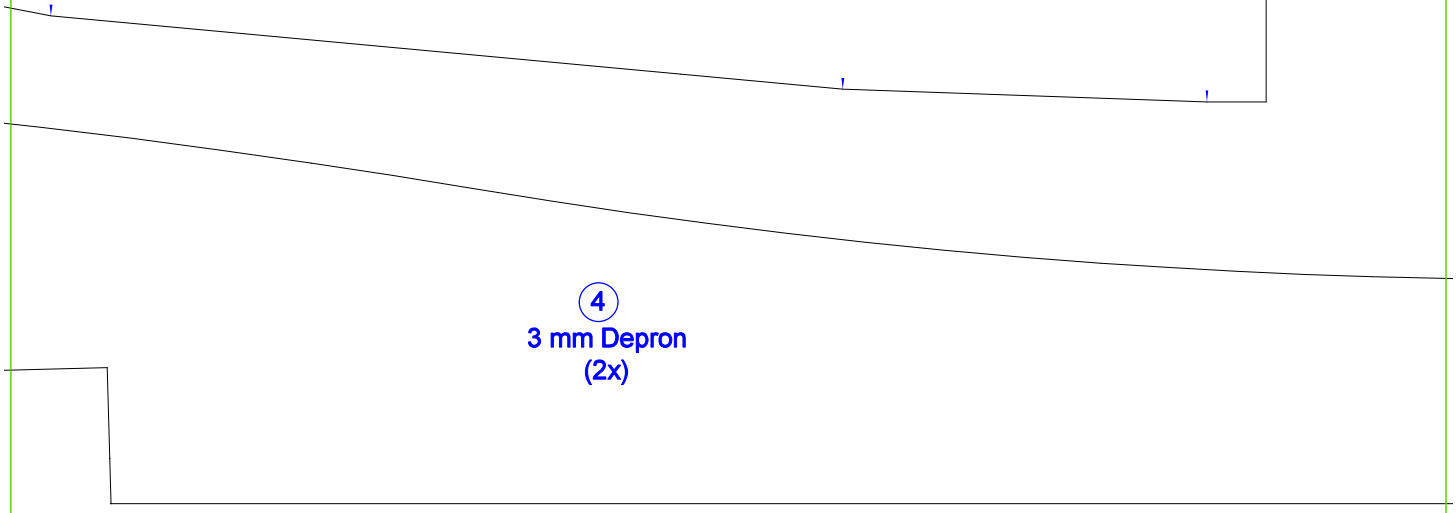


6
3 mm Depron
(2x)

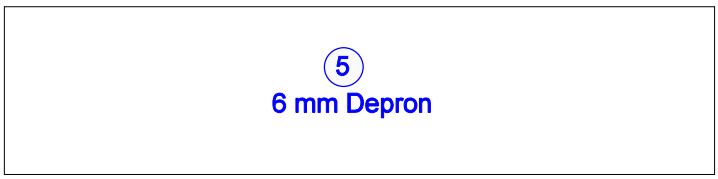


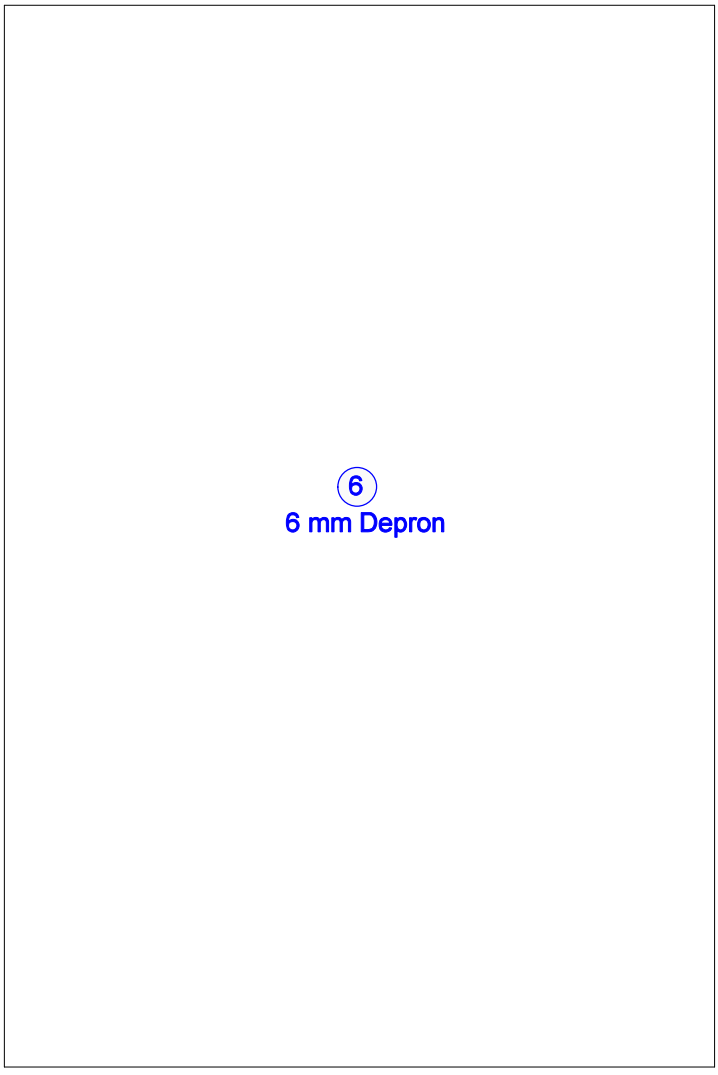


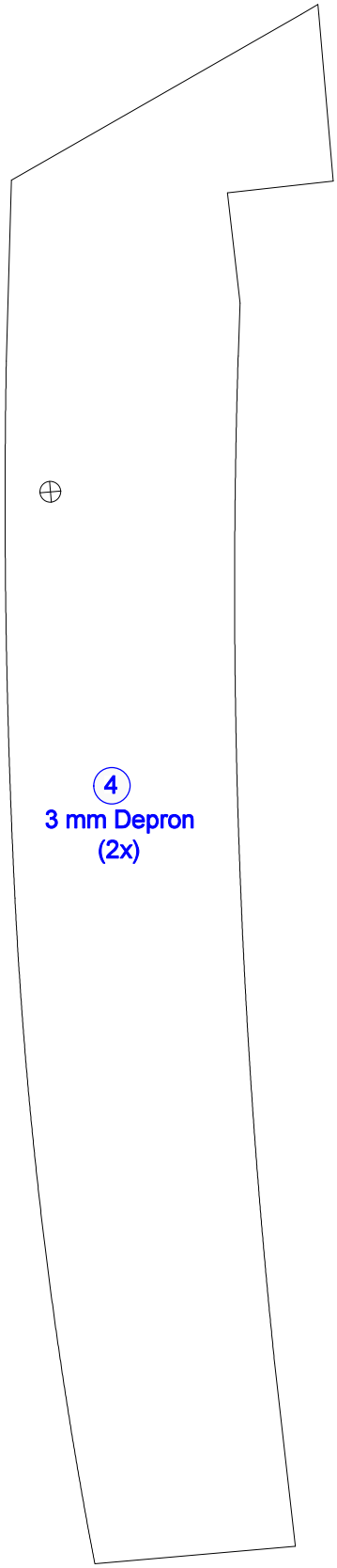
5
6 mm Depron

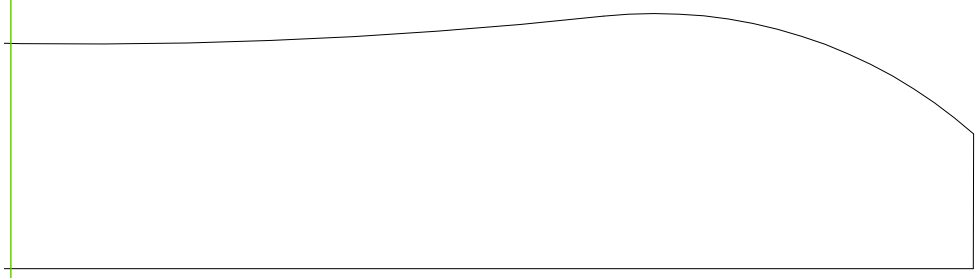


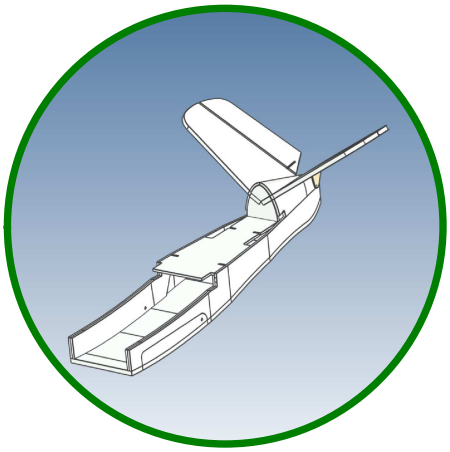
4
3 mm Depron
(2x)


5
6 mm Depron


6
6 mm Depron


4
3 mm Depron
(2x)





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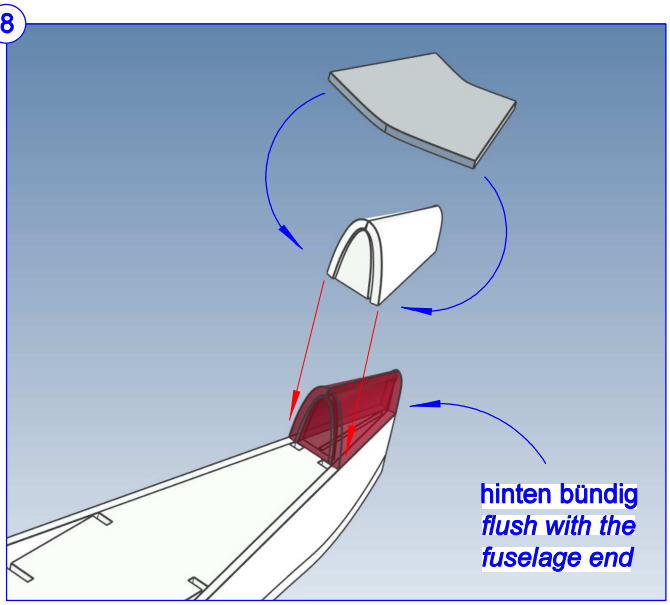

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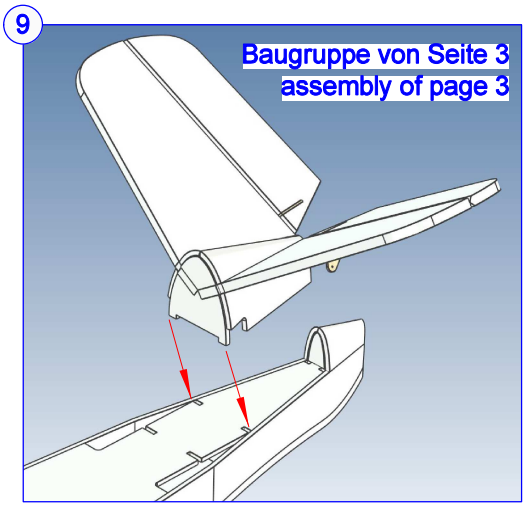

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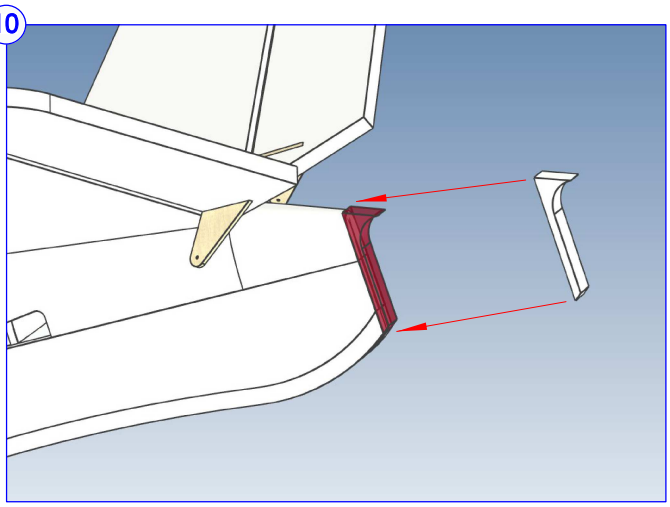
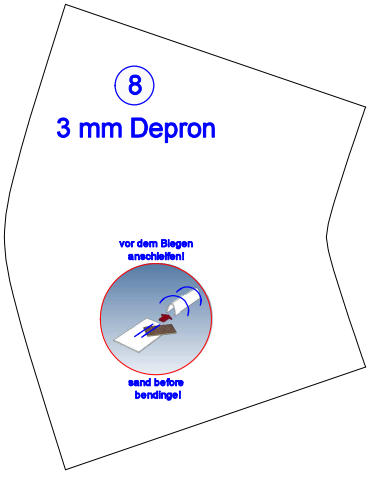
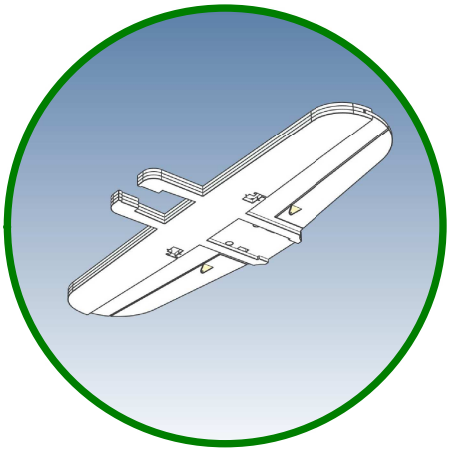
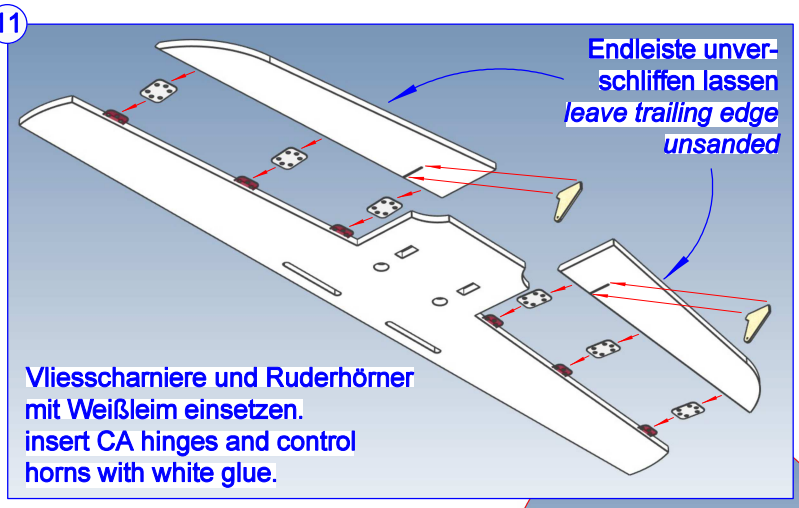


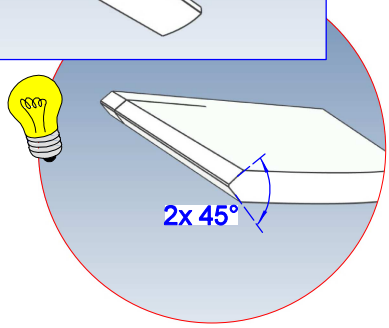
8
3 mm
Depron



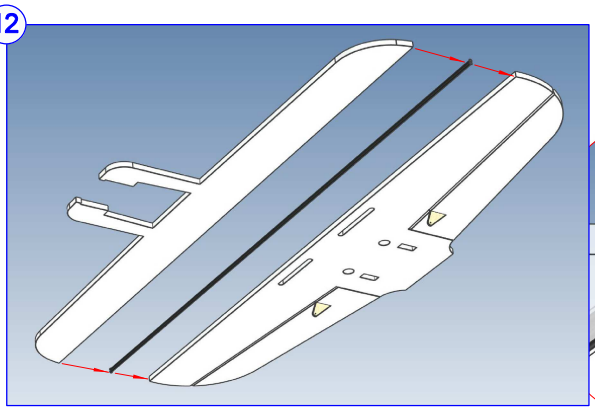


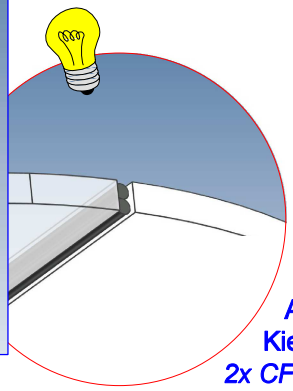
11





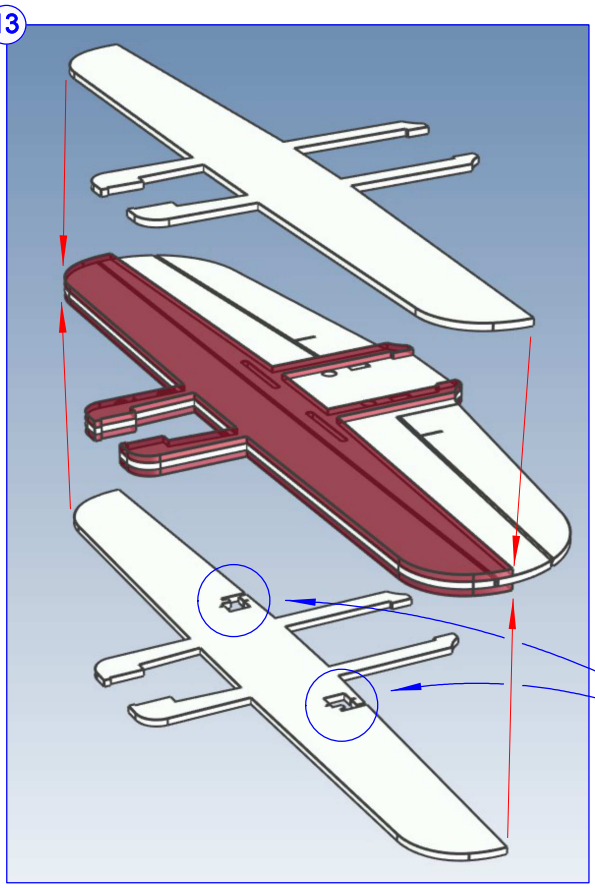
12





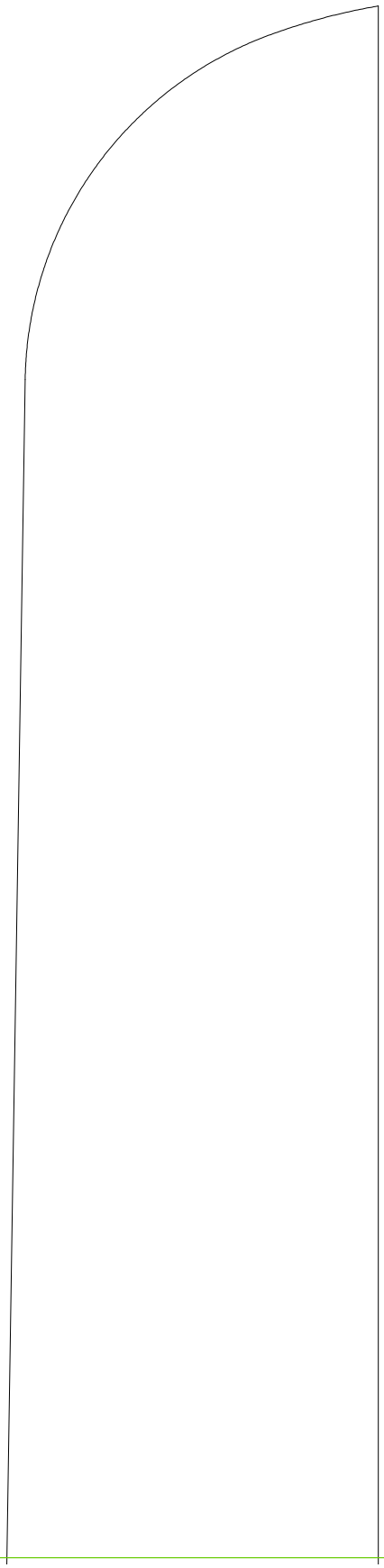
2x CFK-Rundstab
Ø 3 mm / Länge 735 mm.
Alternative:
Kiefernholzleiste 3x6 mm
2x CFK-rod Ø 3 mm / 735 mm
or 3x6 mm pine wood strip.

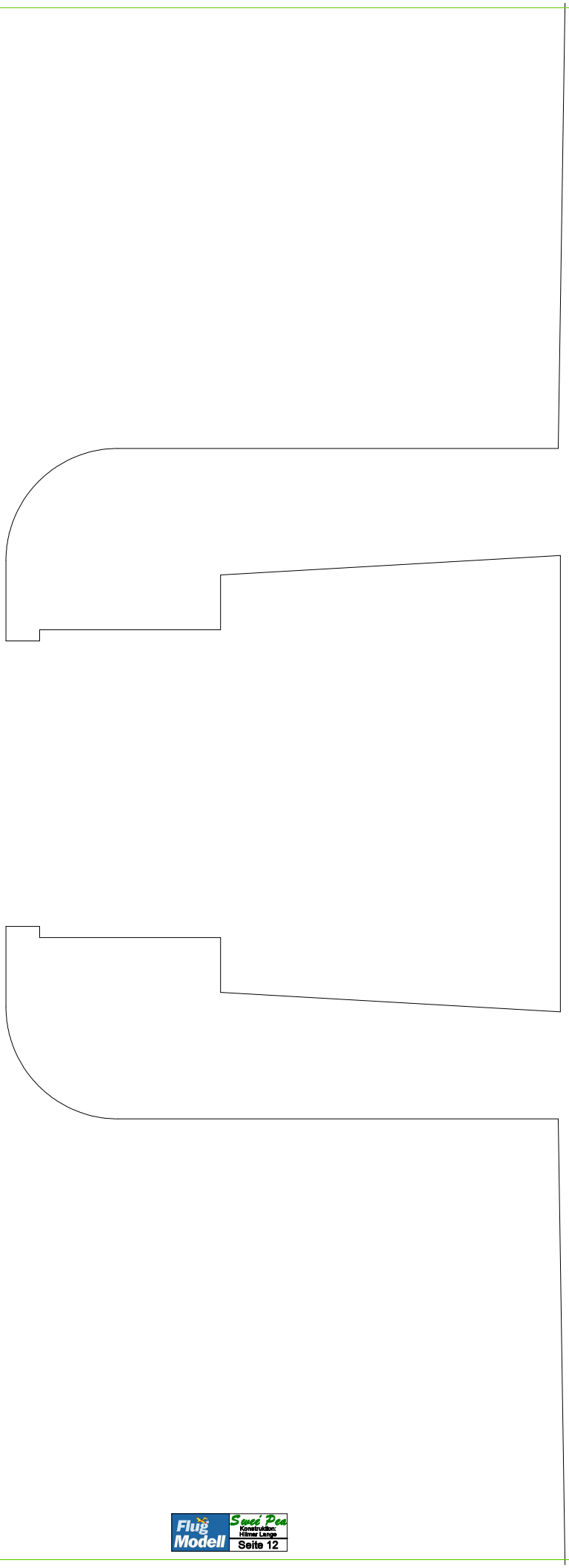
13



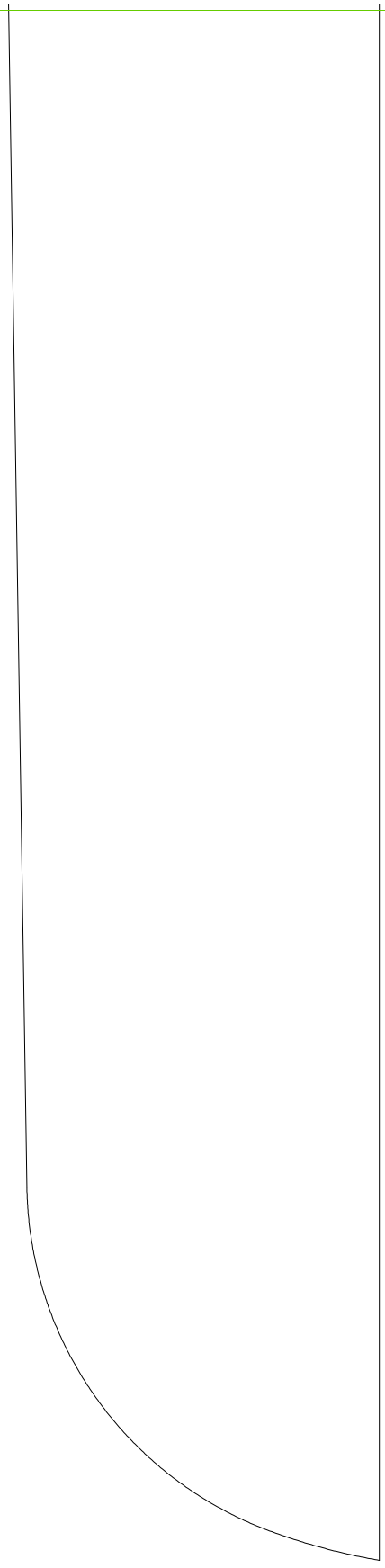
Geeigneter Klebstoff:
UHU por oder
Sprühkleber.
Suitable adhesive:
Styrofoam-compatible
contact adhesive like UHU
por or spray adhesive.

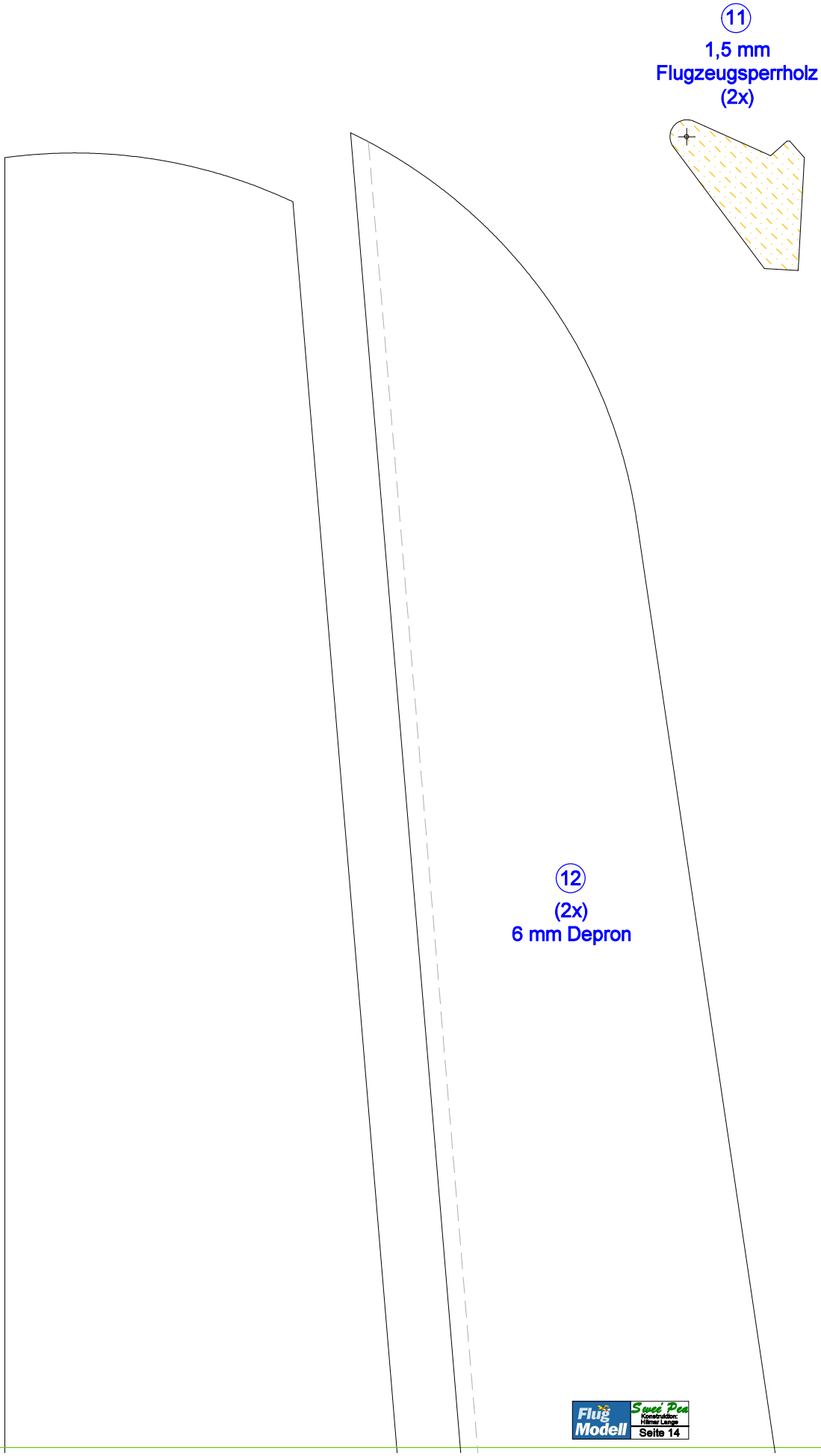
Die Servo-Aussparungen
befinden sich nur an der
Flügel-Unterseite (vgl.
Seite 18)!
The servo cut-outs are
only on the underside of
the wing (see page 18)!



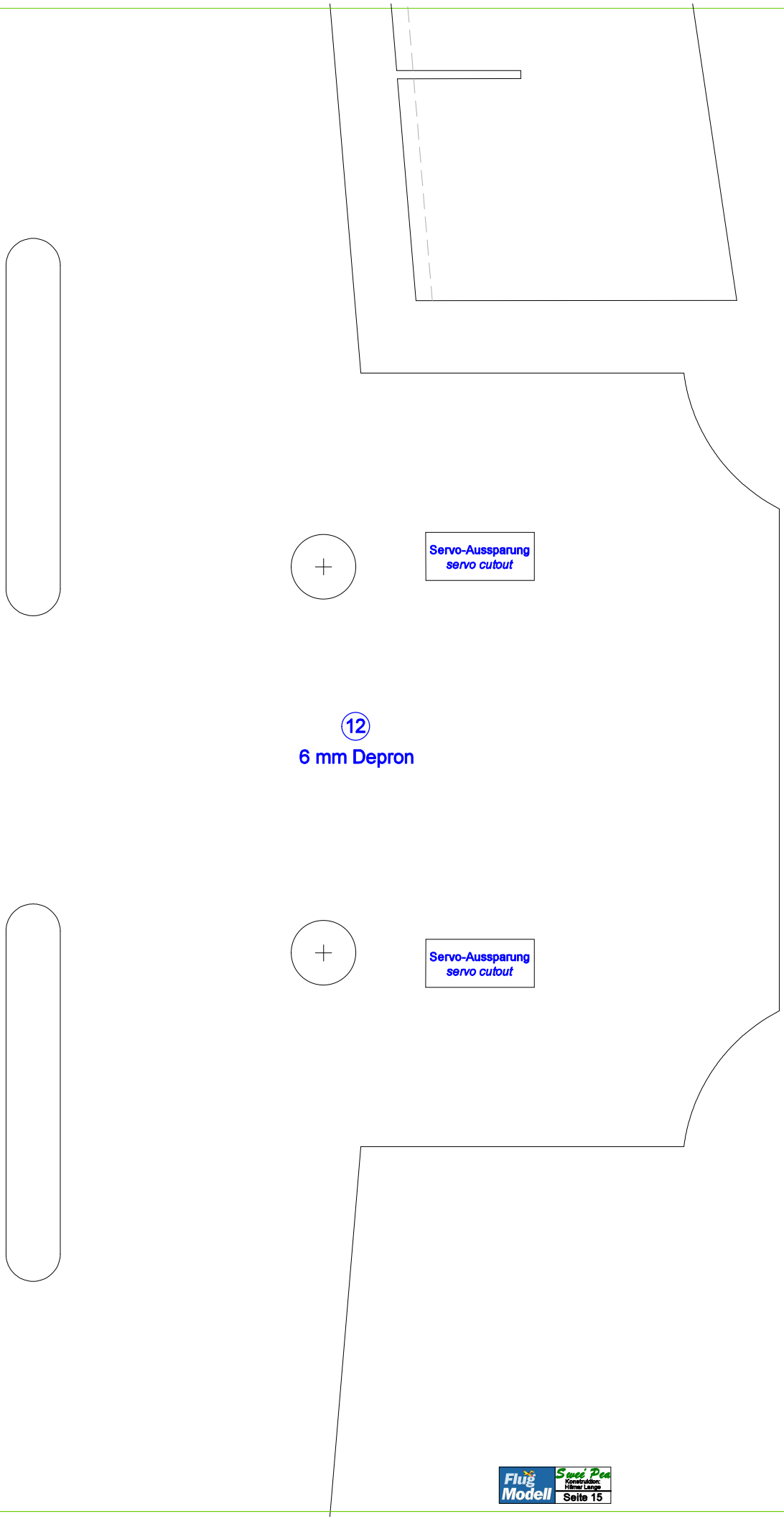


⑫
6 mm Depron

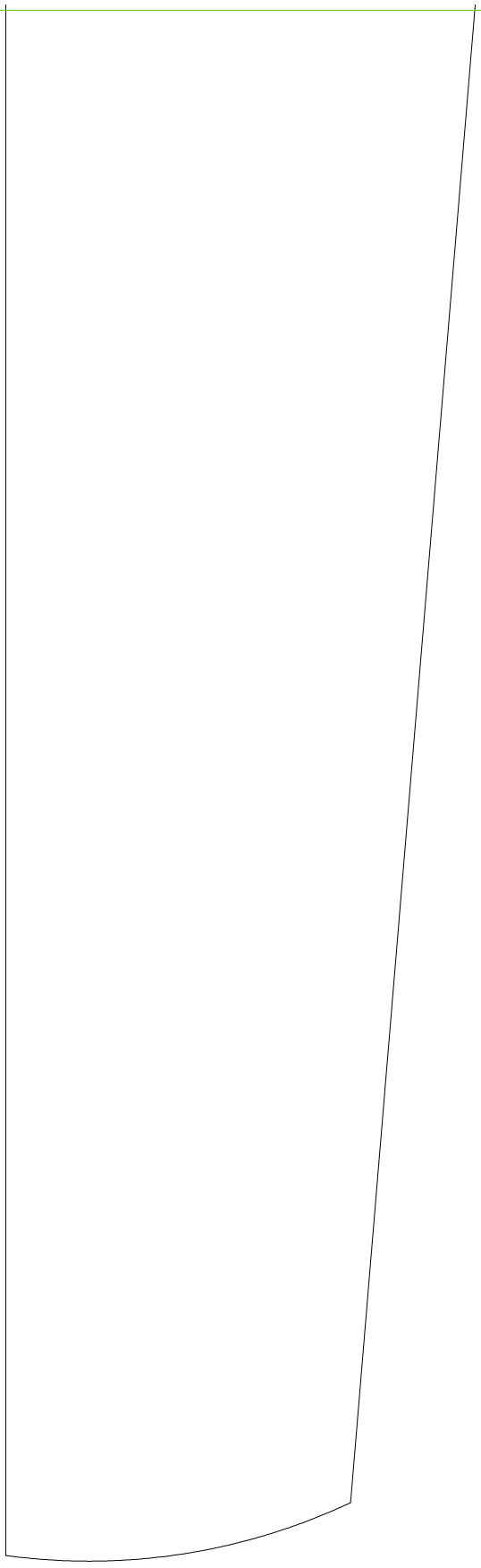


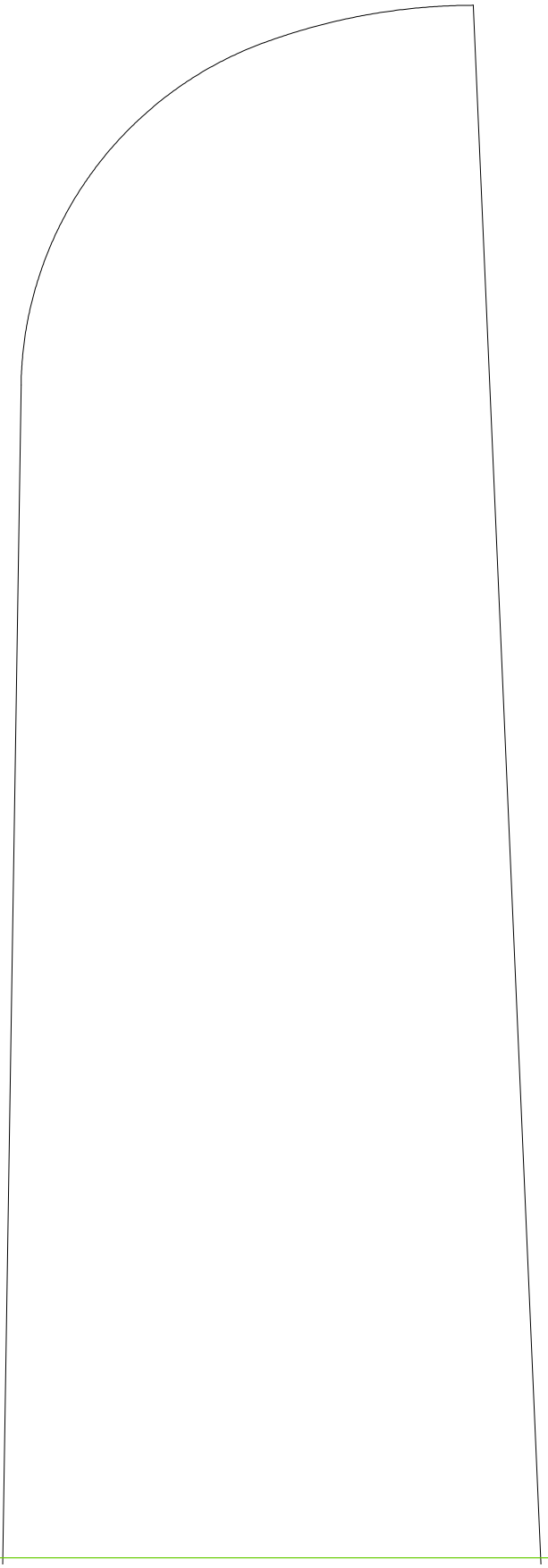

11
1,5 mm
Flugzeugsperrholz
(2x)
12
(2x)
6 mm Depron

Seite 14



Seite 16

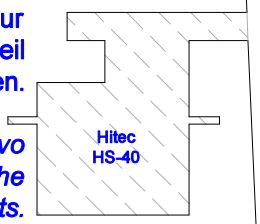




Seite 17

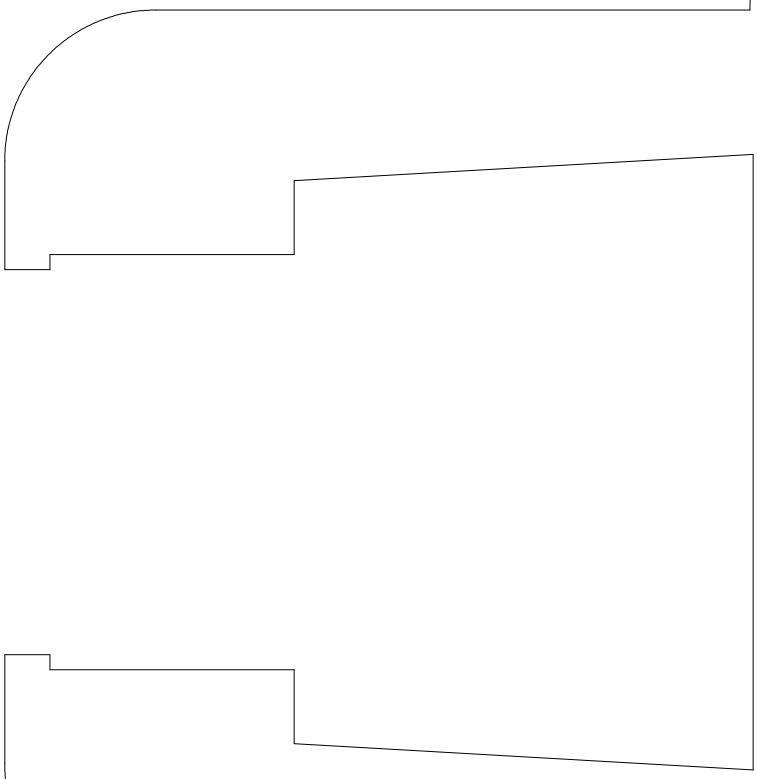
Servo-Ausschnitt nur
an EINEM Bauteil
anbringen.

only attach the servo cut-out to ONE of the components.

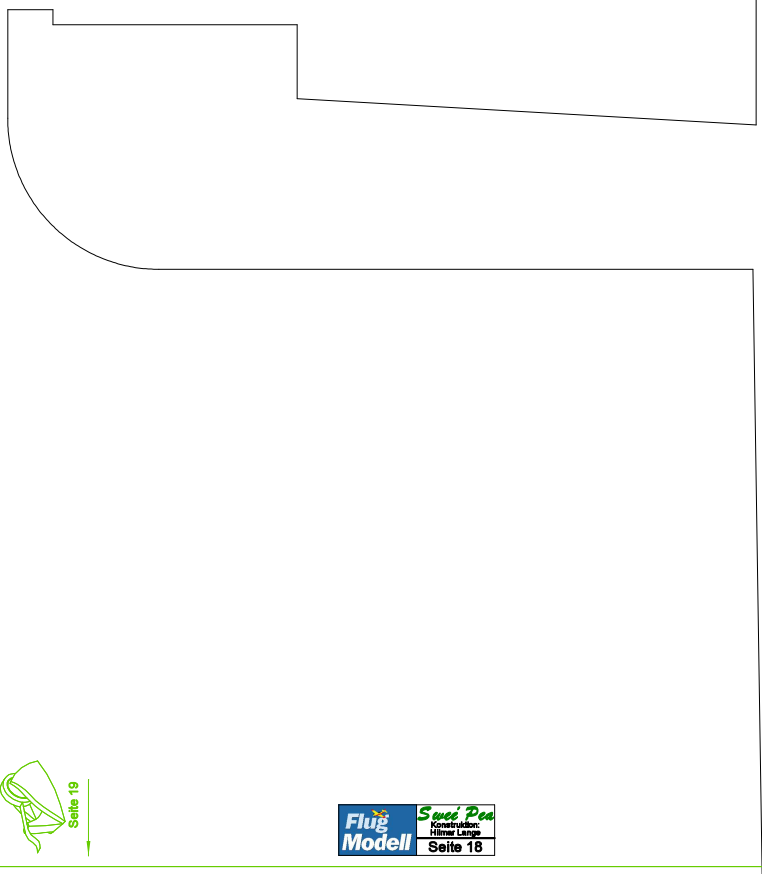


Schwerpunktlage
hier markieren
mark CG here

Seite 20



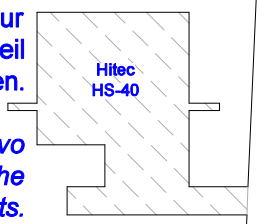
(13)
(2x)
6 mm Depron



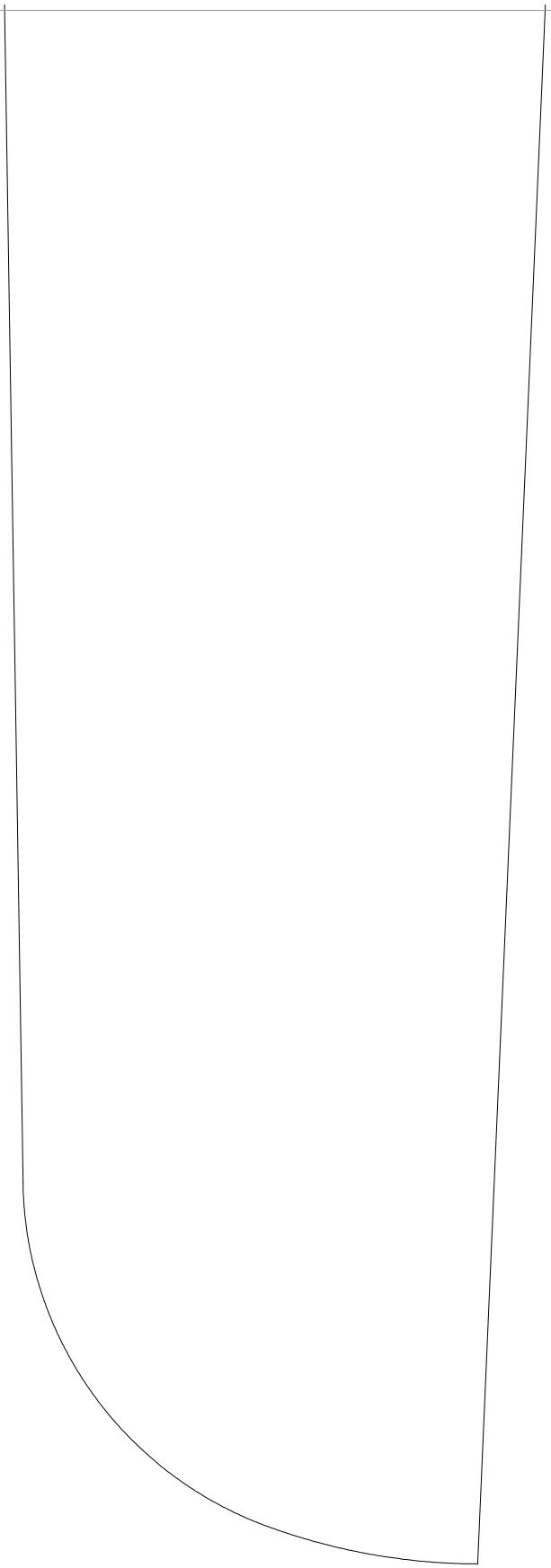
Schwerpunktlage
hier markieren
mark CG here

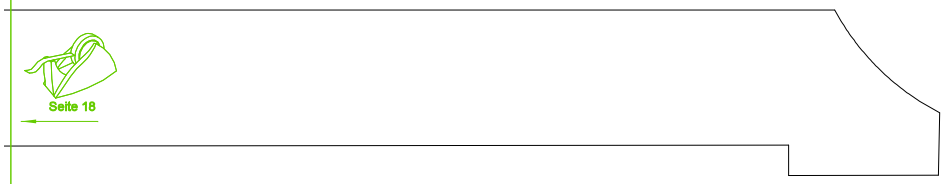
Servo-Ausschnitt nur
an EINEM Bauteil
anbringen.

only attach the servo cut-out to ONE of the components.

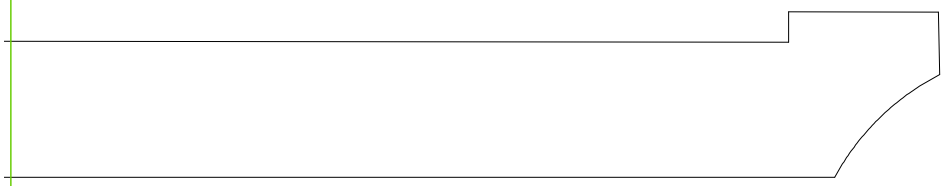


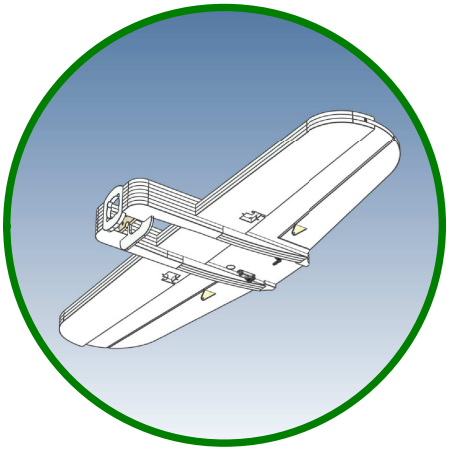
Seite 19



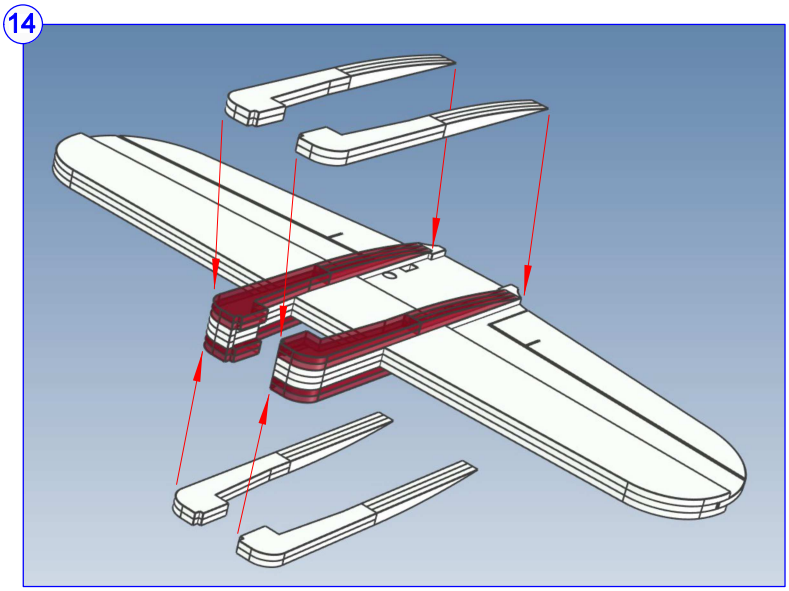


Seite 18

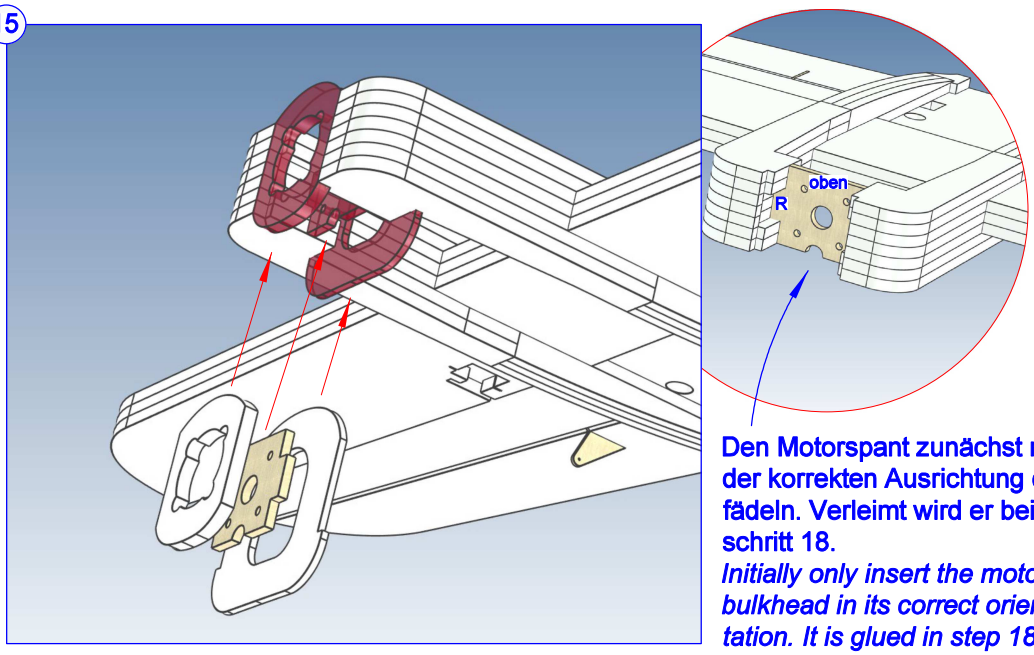




14



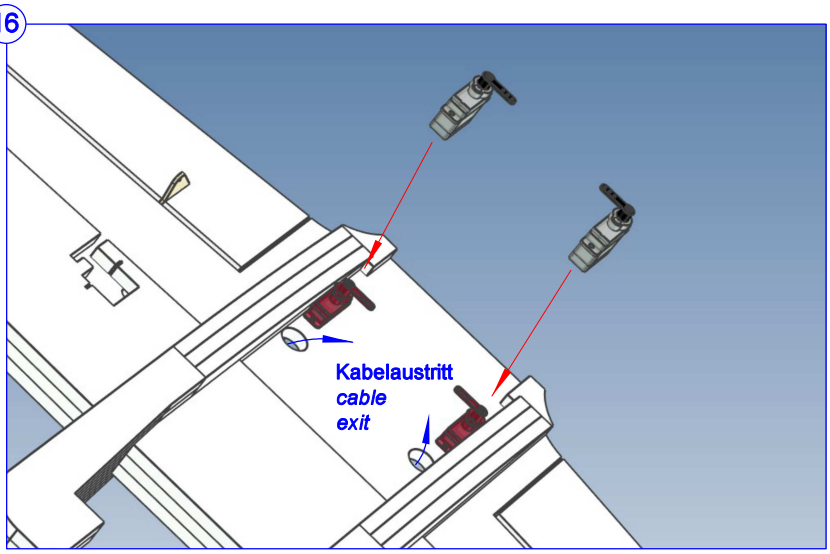
15

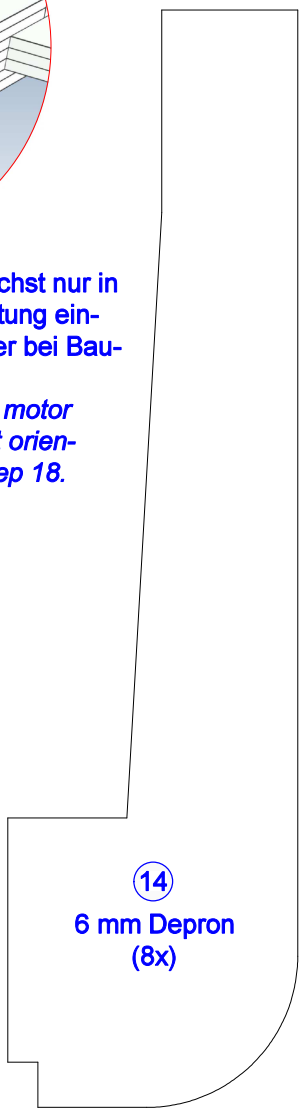


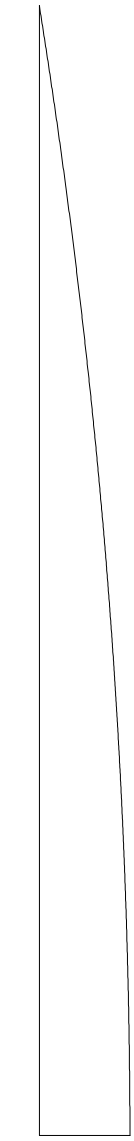
Den Motorspant zunächst nur in der korrekten Ausrichtung einfädeln. Verleimt wird er bei Bauschritt 18.

Initially only insert the motor bulkhead in its correct orientation. It is glued in step 18.

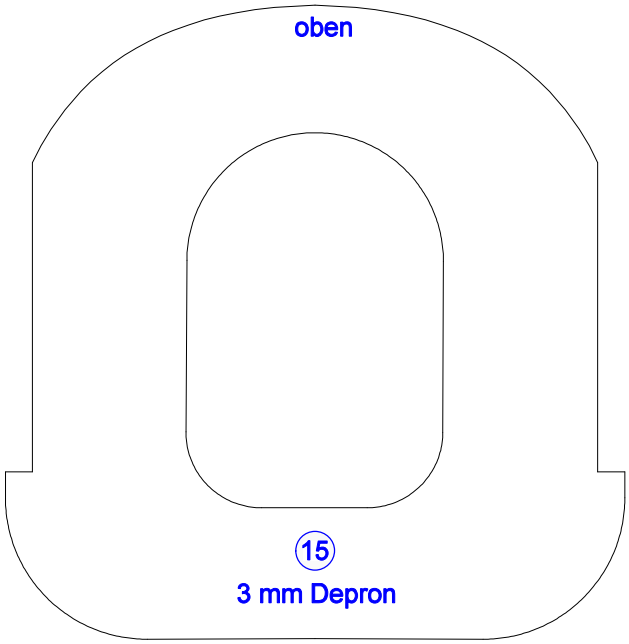
16



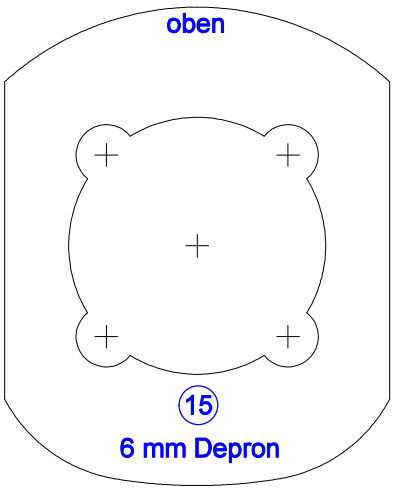




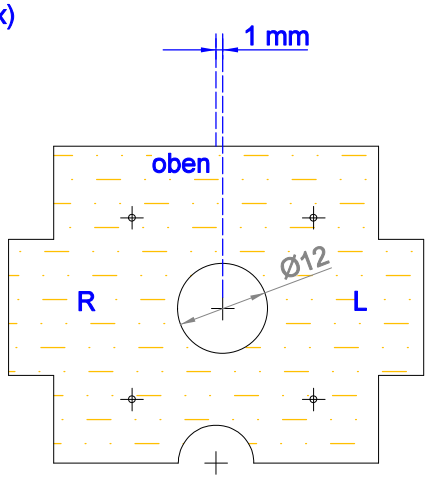
14
6 mm Depron
(12x)



15
3 mm Depron



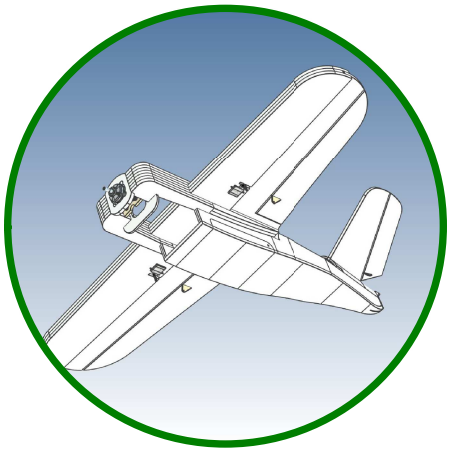
15
6 mm Depron



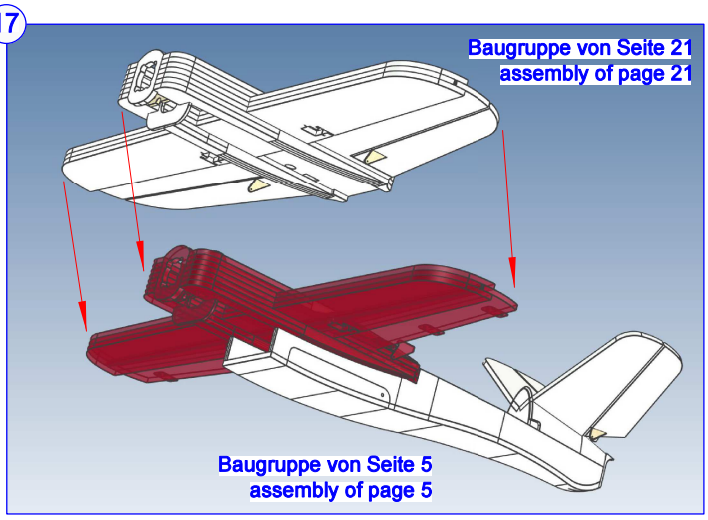
15
4 mm Pappelsperrholz
4 mm poplar plywood

Der Motor wird am Spant um 1 mm weiter links befestigt, damit er unter Berücksichtigung des Seitenzuges von 1,5° vorn mittig aus dem Rumpf herausschaut.

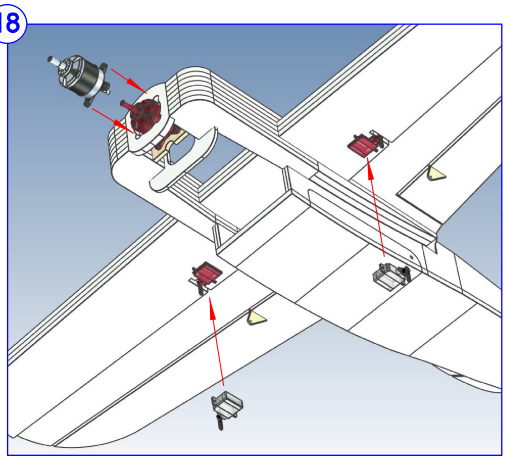
The motor is attached to the bulkhead by 1 mm further to the left so that it is centered with its shaft, due to the side thrust of 1,5°.

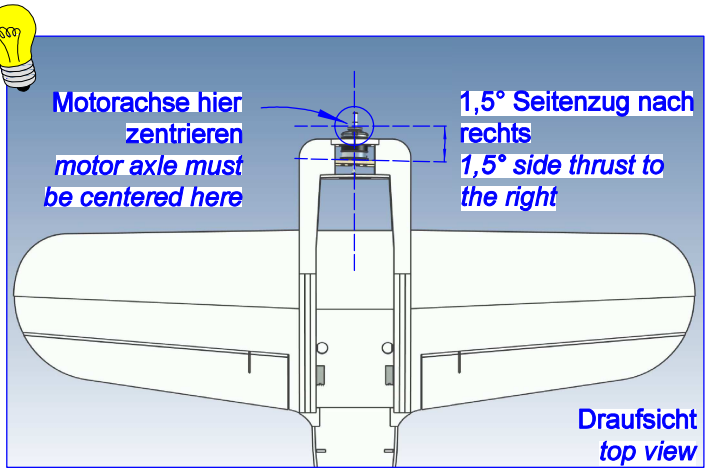


17



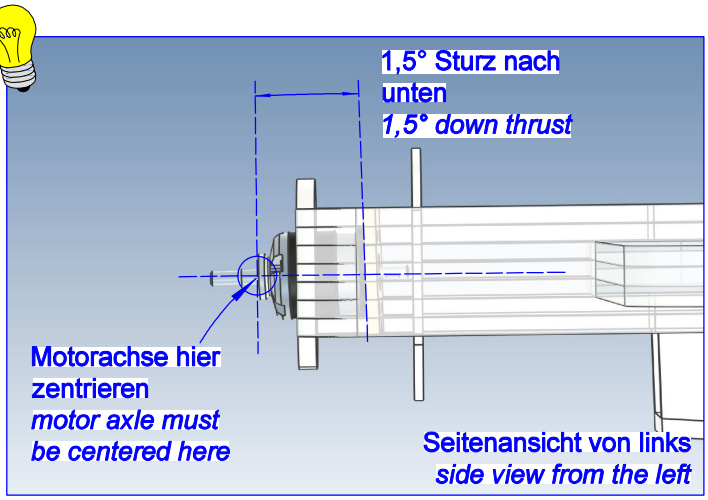
18

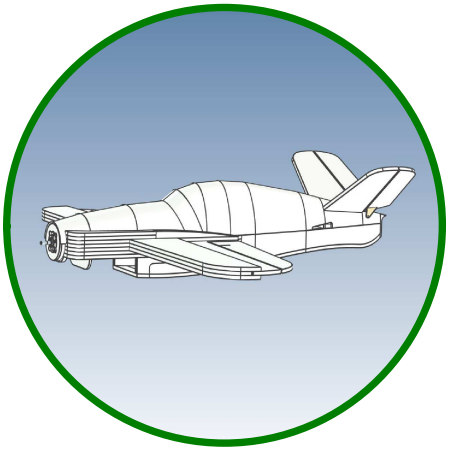




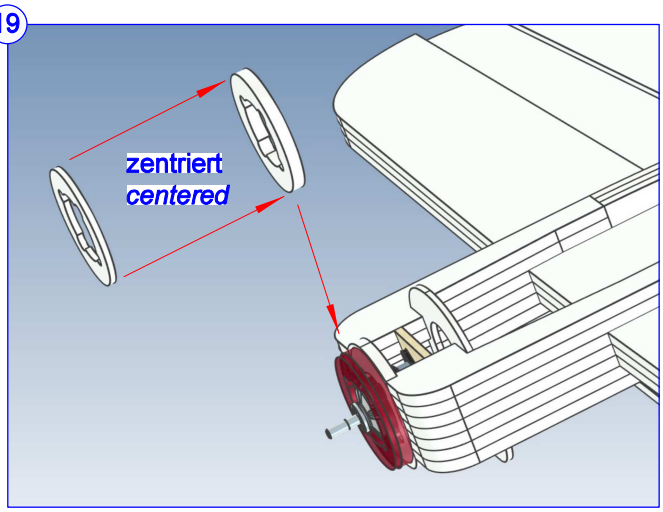
Motor mit Motorspant verschrauben, damit der Spant ausgerichtet und festgeleimt werden kann.
Der Seitenzug soll 1,5° betragen, und der Motorsturz 1,0°.

Bolt the motor to the motor bulkhead so that the bulkhead can be aligned and glued.
The side thrust should be 1.5 ° and the downthrust 1.0 °.

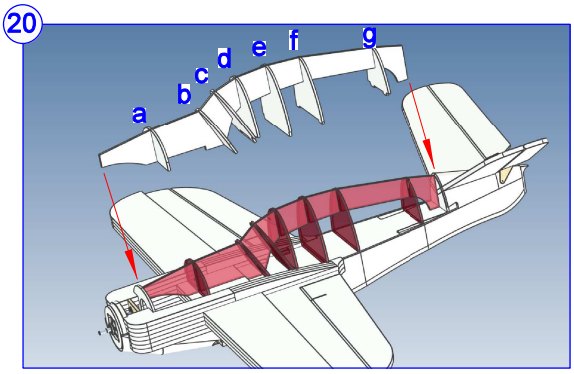




19

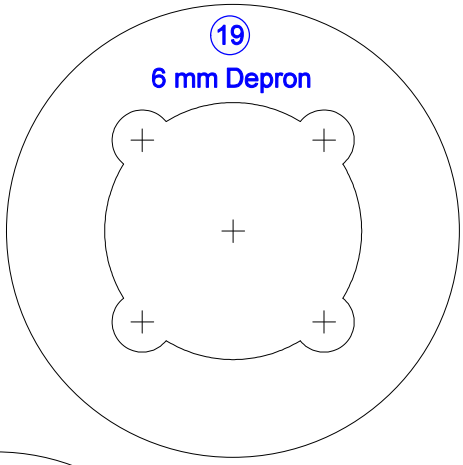


20

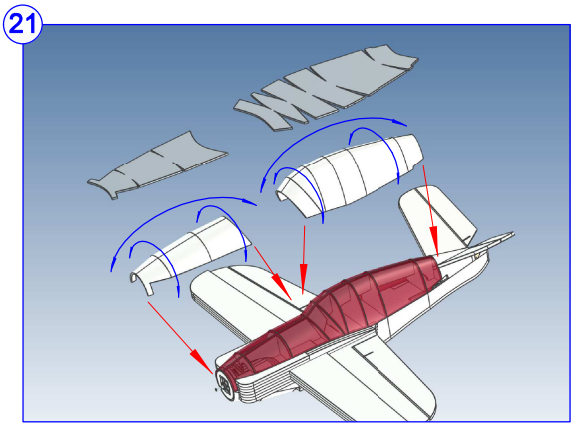


19

6 mm Depron

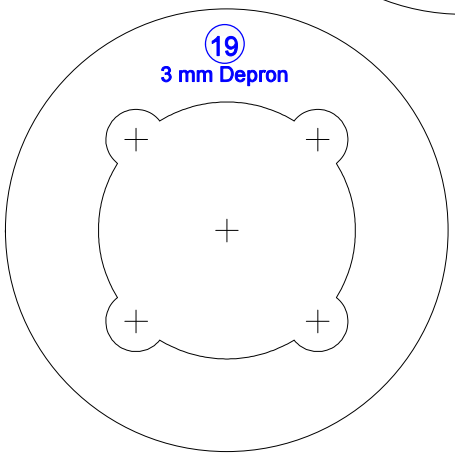


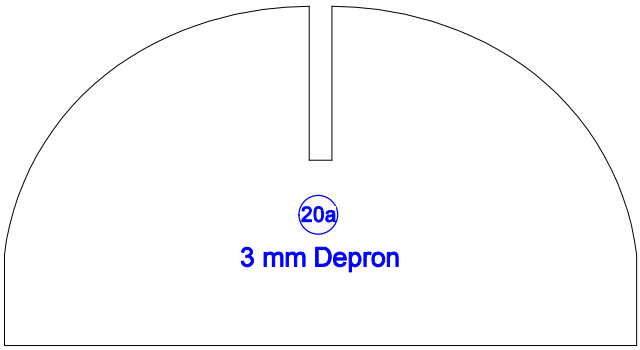
21



19

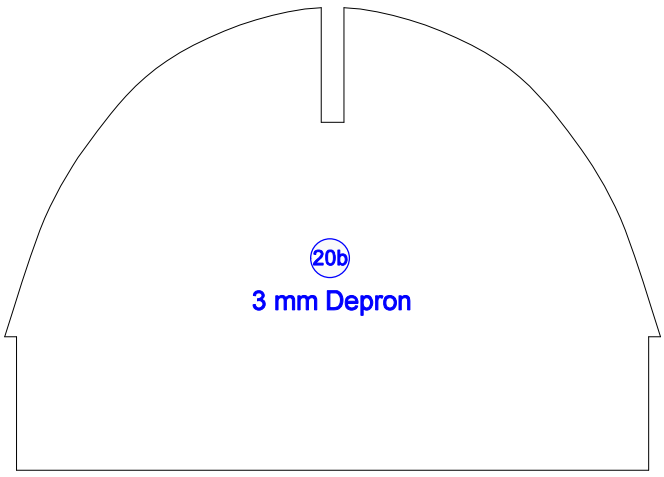
3 mm Depron





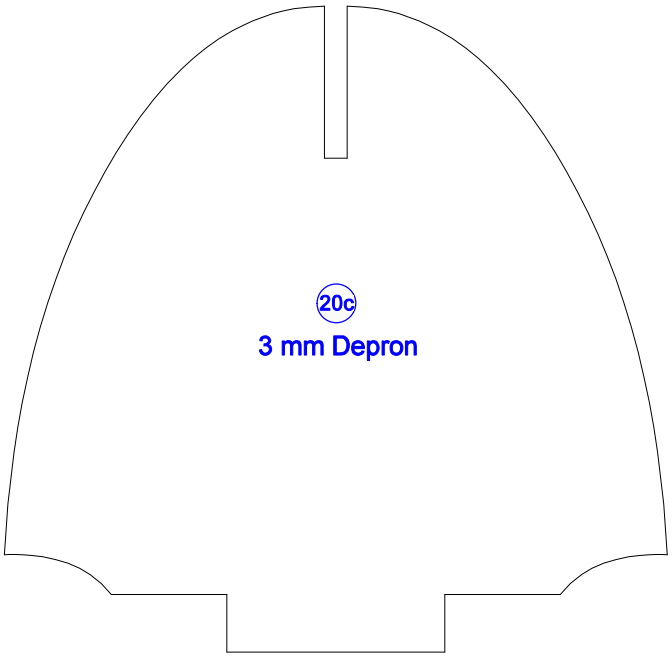
20a

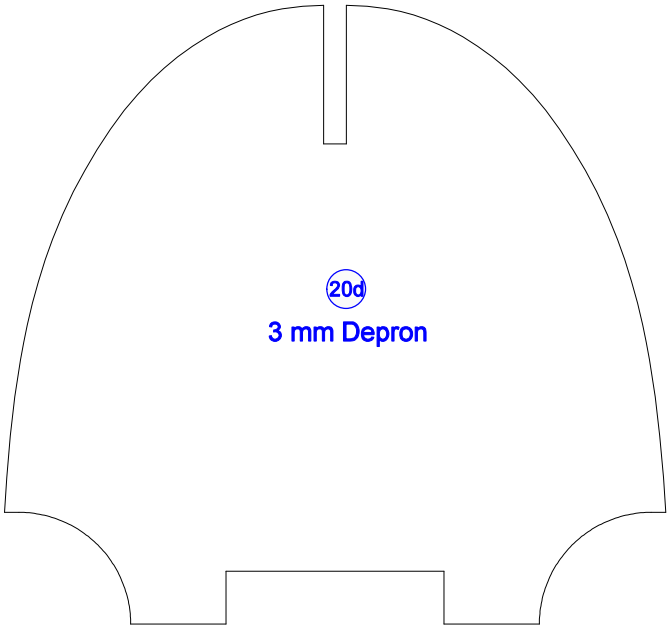
3 mm Depron

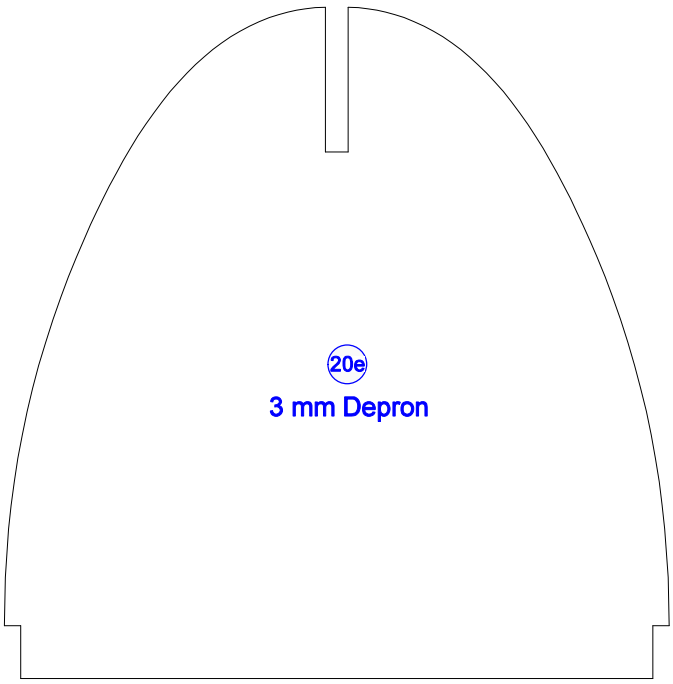


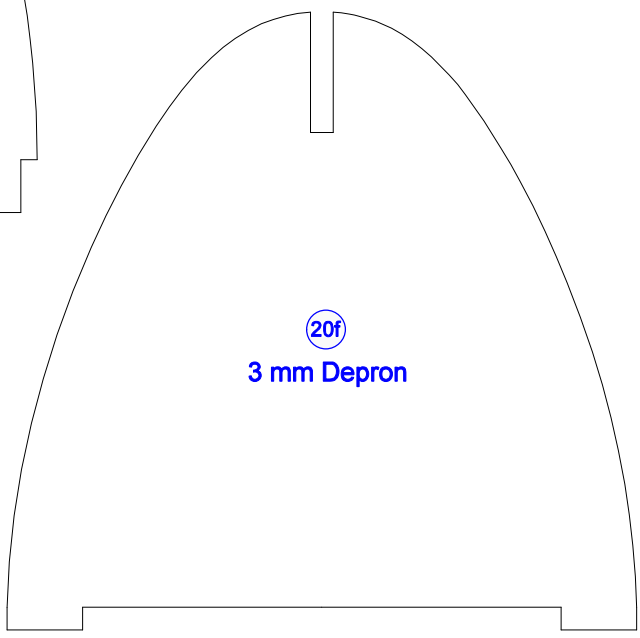
20b

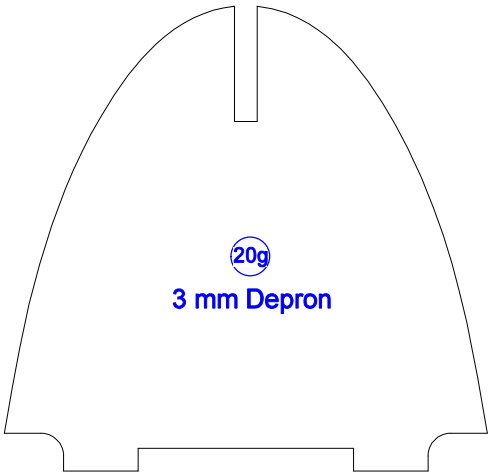
3 mm Depron

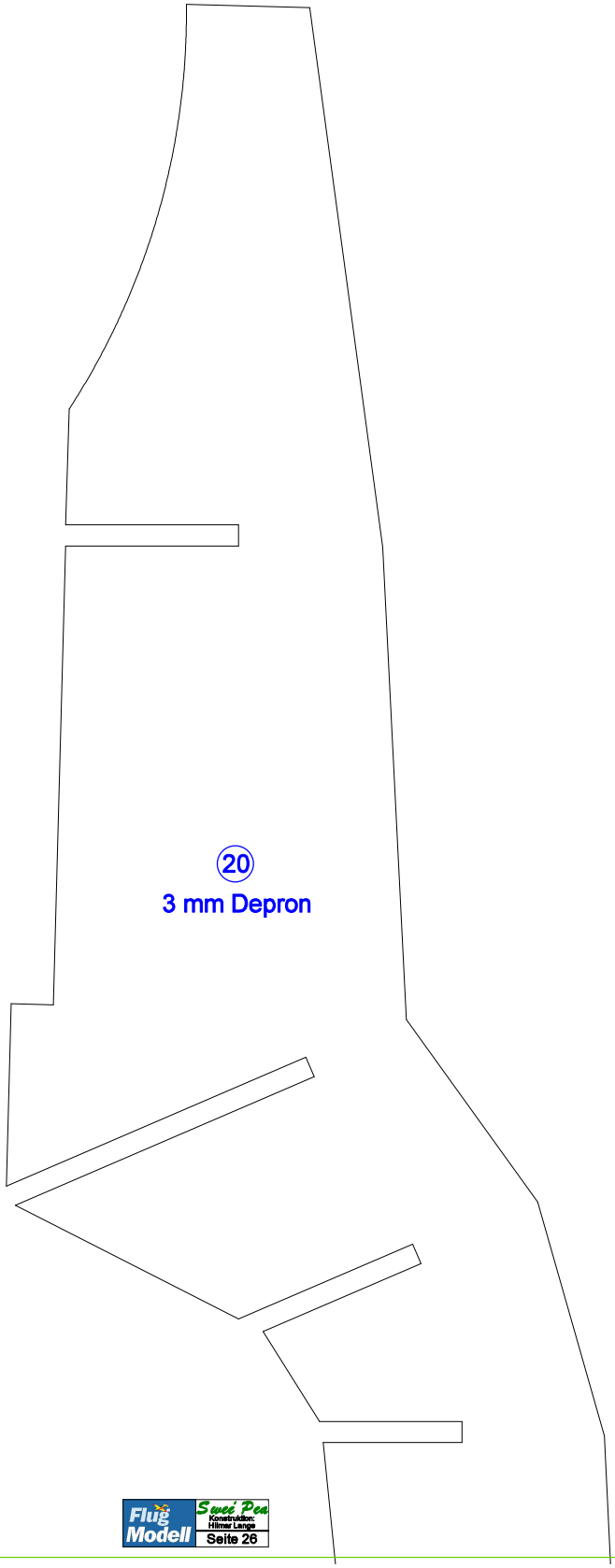

20c
3 mm Depron

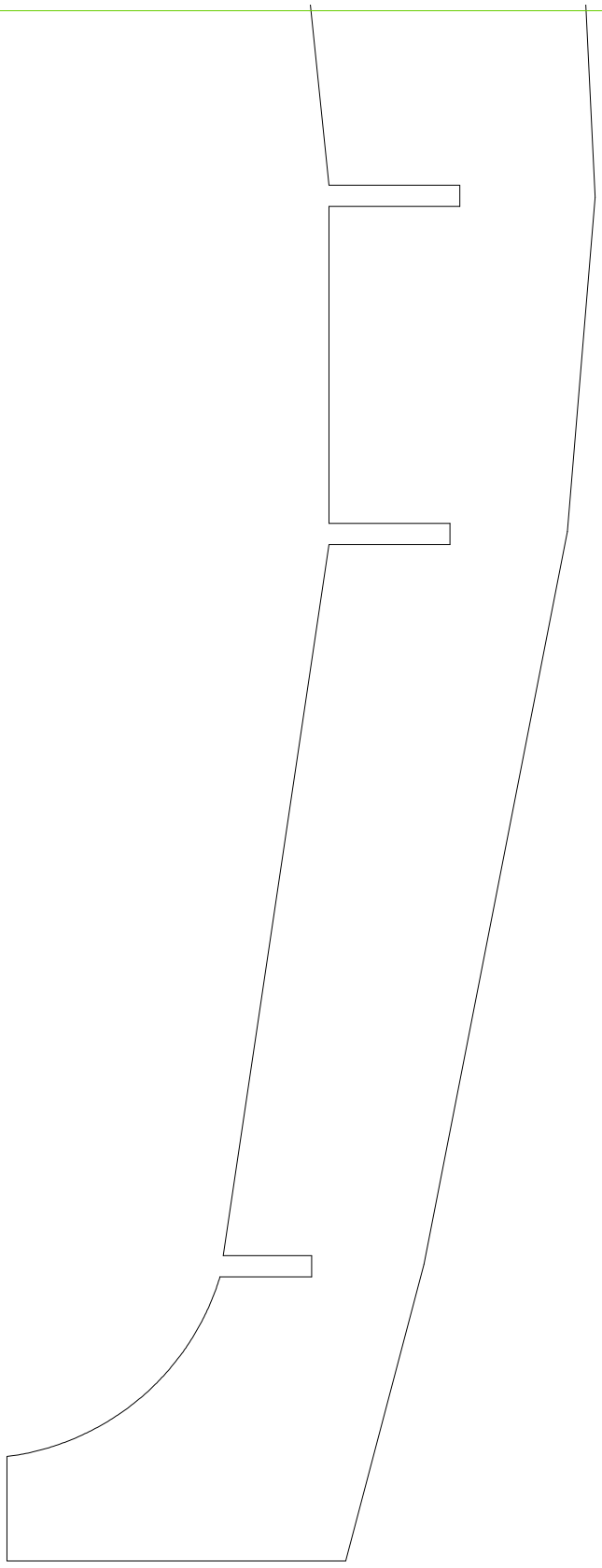

20d
3 mm Depron

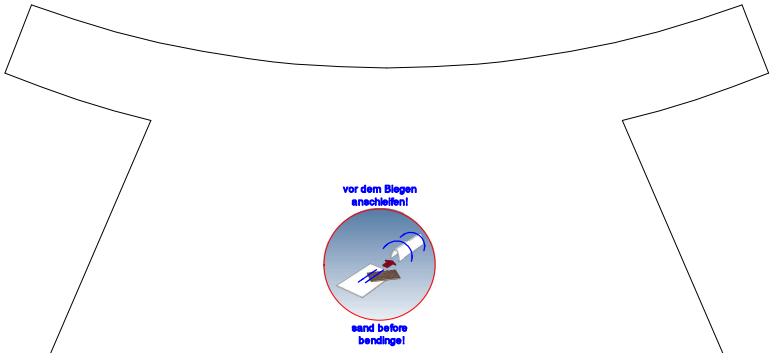

20e
3 mm Depron


20f
3 mm Depron


20g
3 mm Depron


20
3 mm Depron



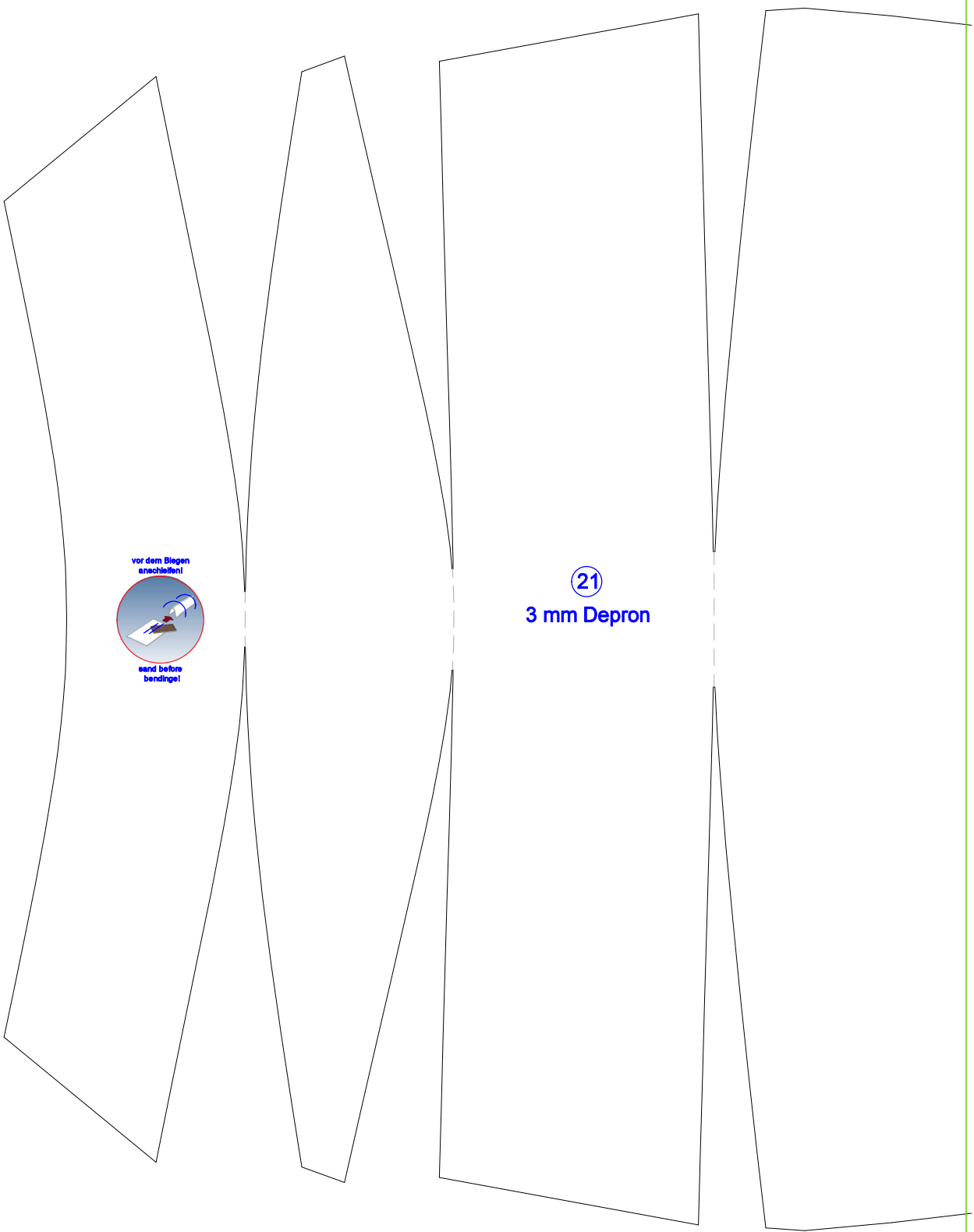


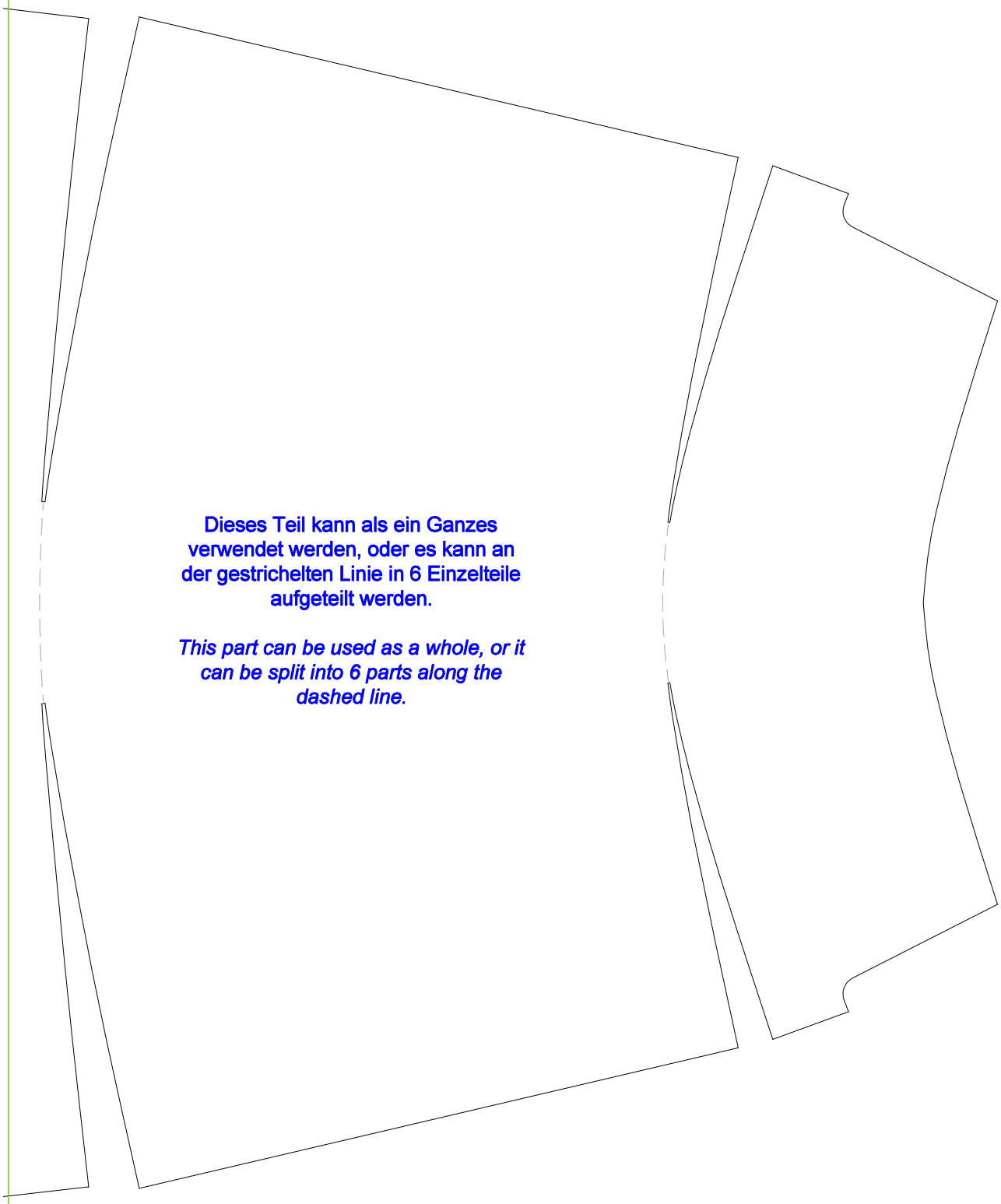
21

3 mm Depron

Dieses Teil kann als ein Ganzes verwendet werden, oder es kann an der gestrichelten Linie in drei Einzelteile aufgeteilt werden.

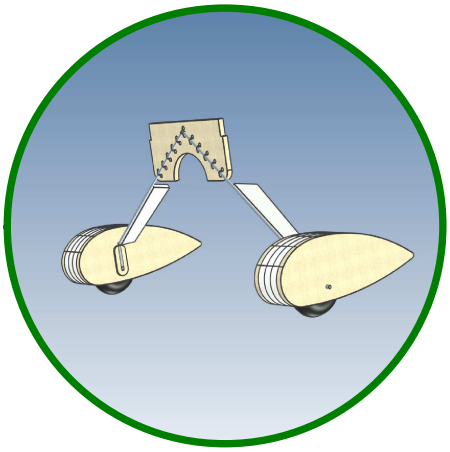
This part can be used as a whole, or it can be split into three parts along the dashed line.


vor dem Biegen anschleifen!
sand before bendings!
21
3 mm Depron

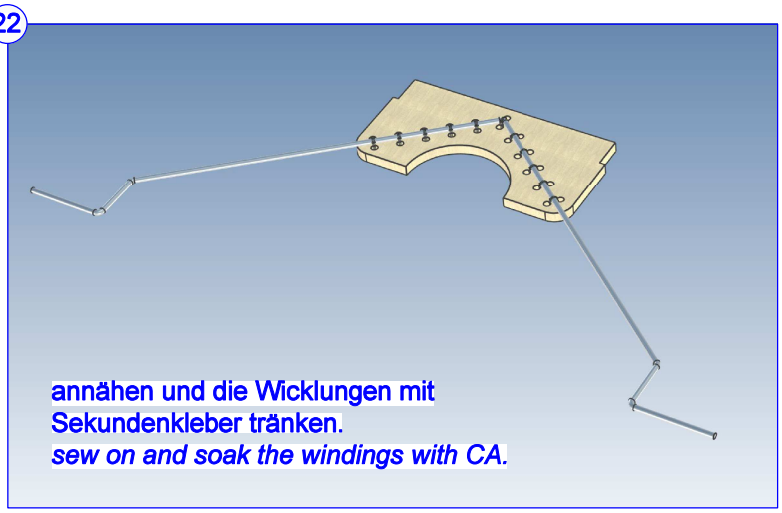


Dieses Teil kann als ein Ganzes verwendet werden, oder es kann an der gestrichelten Linie in 6 Einzelteile aufgeteilt werden.

This part can be used as a whole, or it can be split into 6 parts along the dashed line.

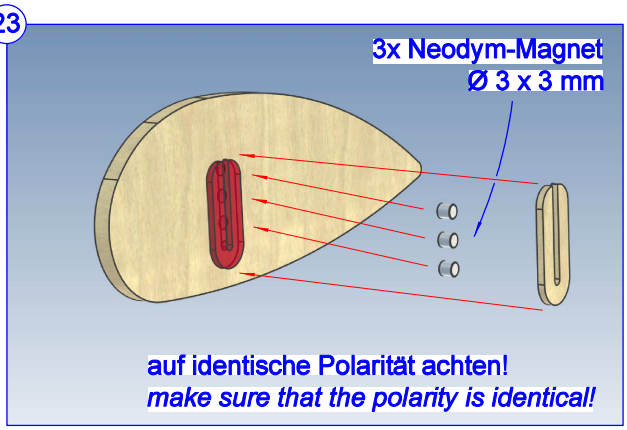


22



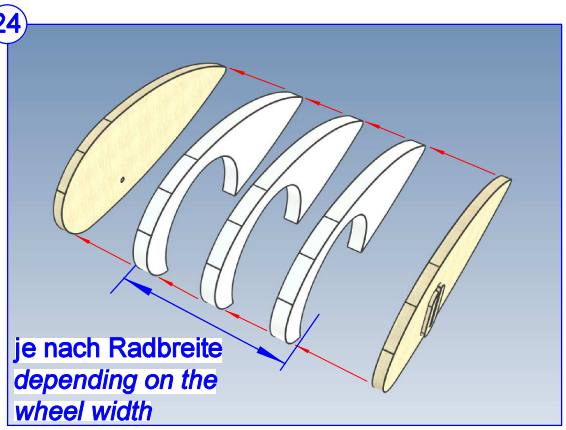
annähen und die Wicklungen mit Sekundenkleber tränken.
sew on and soak the windings with CA.

23



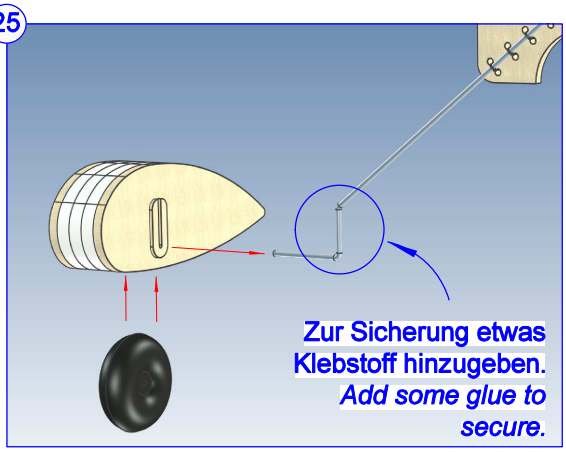
auf identische Polarität achten!
make sure that the polarity is identical!

24



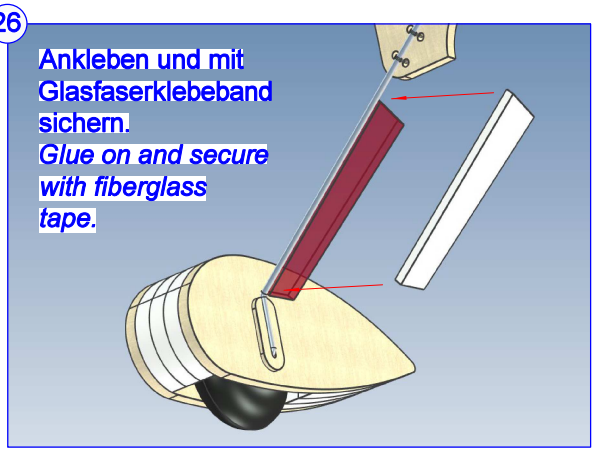
je nach Radbreite
depending on the wheel width

25

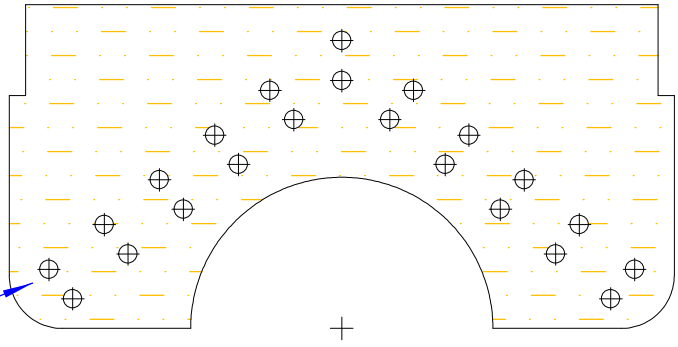


Zur Sicherung etwas Klebstoff hinzugeben.
Add some glue to secure.

26



Ankleben und mit Glasfaserklebeband sichern.
Glue on and secure with fiberglass tape.



Ø 2,5 mm

22

4 mm Pappelsperrholz
4 mm poplar plywood

Diese Länge richtet sich nach dem verwendeten Rad! Zunächst länger lassen, danach einkürzen.
This length depends on the wheel you are using! First leave it longer, then shorten it.

(22)
2 mm Federstahldraht
2 mm music wire

(23)
(2x)
3 mm
Depron

oben

Bohrungen Ø 2 mm nur bei 2 Bauteilen!
Bores Ø 2 mm only for 2 components!

Ø2

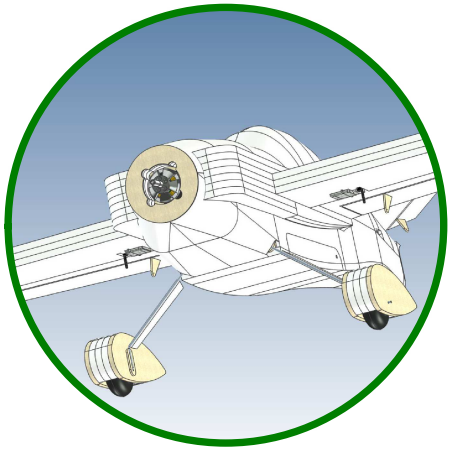
(23)
(4x)
3 mm Balsa

(23)
(6x)
6mm Depron

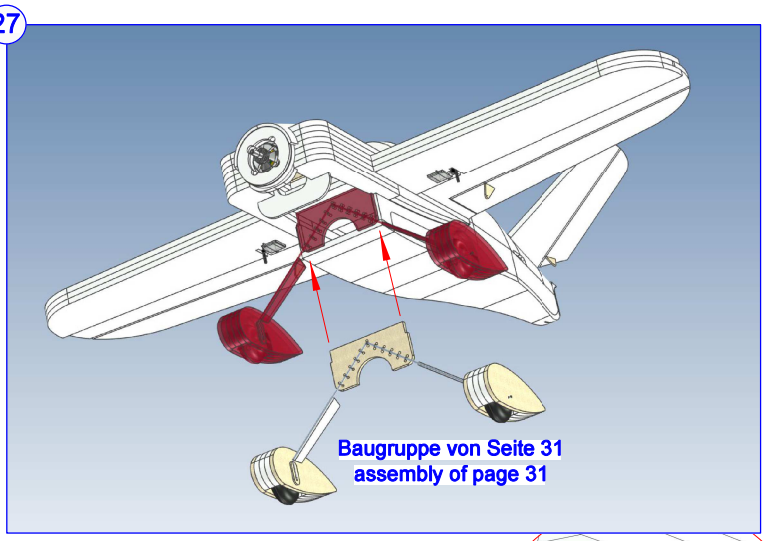
Anzahl und Materialstärke richtet sich nach der Radbreite.
The number and material thickness depends on the wheel width.

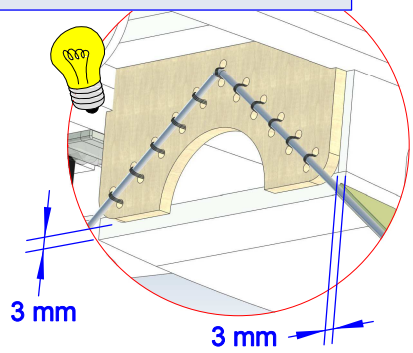
(23)
2 mm
(2x)
1,5 mm
Flugzeugsperrholz
1,5 mm aircraft plywood

Diese Länge richtet sich nach dem verwendeten Rad! Zunächst länger lassen, danach einkürzen.
This length depends on the wheel you are using! First leave it longer, then shorten it.



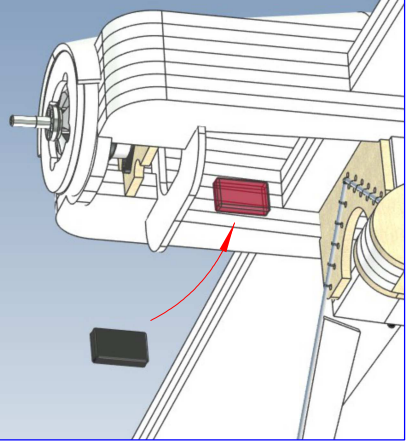
27



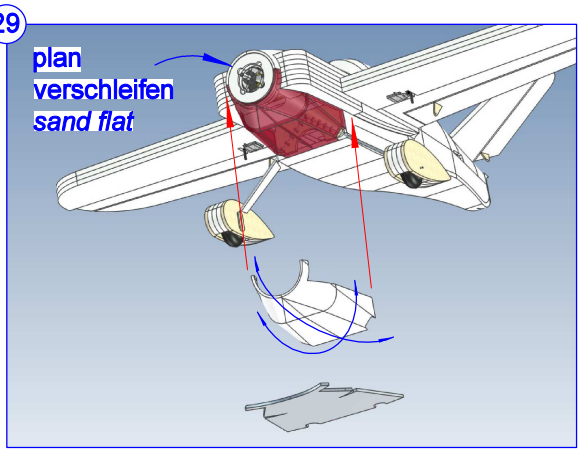


28

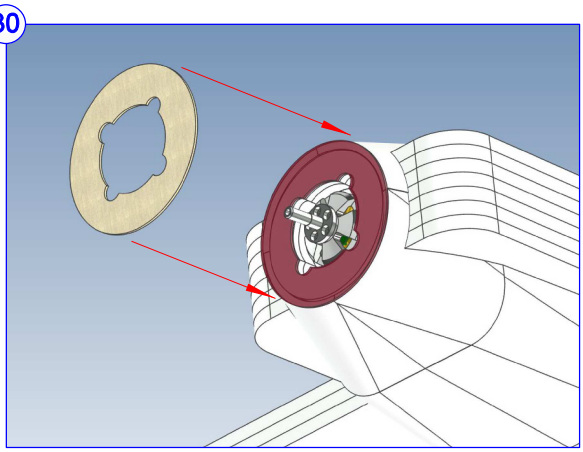
Regler einbauen und Motor mit korrekter Drehrichtung anklemmen.
Install the controller and connect the motor with the correct direction of rotation.



29



30



Der Abschluss-Spant ist geringfügig kleiner, so dass der umgebende Bereich der Schnauze darauf angepasst kreisrund geschliffen werden kann. Zentrieren Sie ihn exakt zur Propellerauflage!
The final bulkhead is slightly smaller so that the surrounding area of the snout can be ground to be perfectly circular. Center it exactly to the propeller support!

30

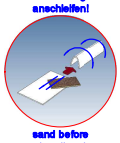
1,5 mm Flugzeug-sperrholz

+

1,5 mm aircraft-plywood

Profil-Kontrollschablone *airfoil control template* 33

vor dem Biegen anschleifen!



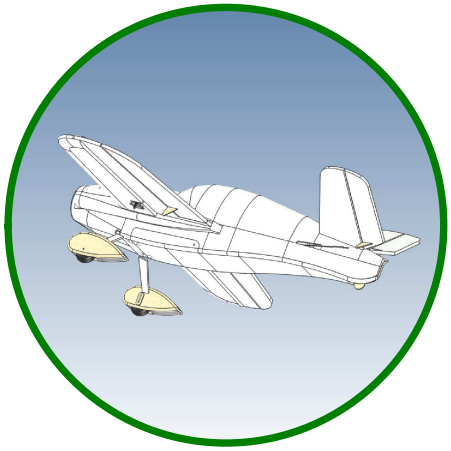
sand before bending!

29

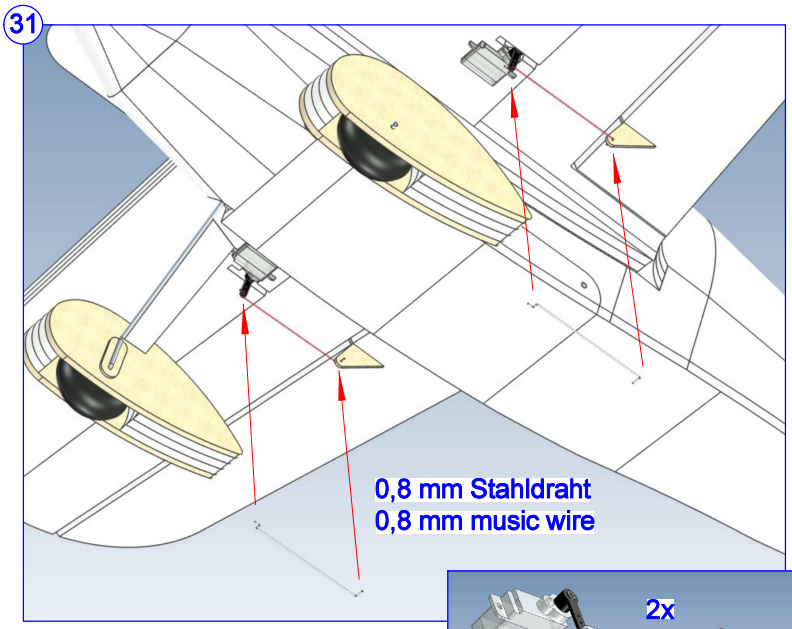
3 mm Depron

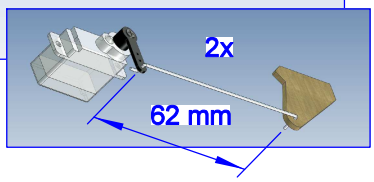
Dieses Teil kann als ein Ganzes verwendet werden, oder es kann an der gestrichelten Linie in zwei Einzelteile aufgeteilt werden.

This part can be used as a whole, or it can be split into two parts along the dashed line.

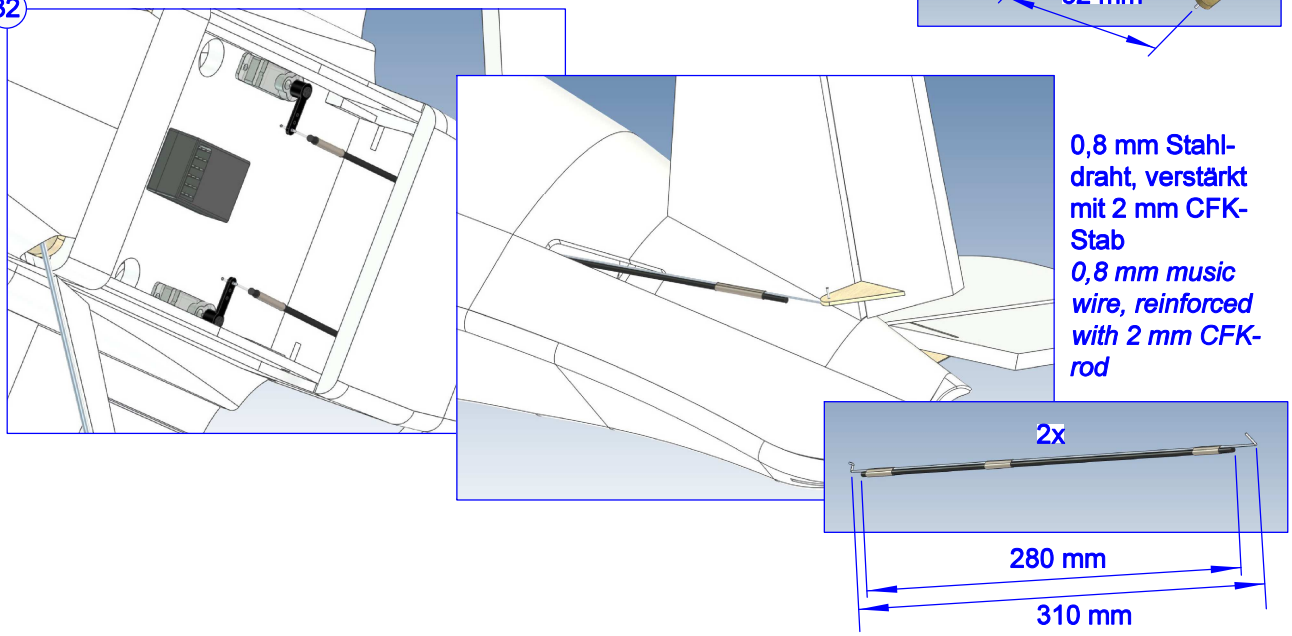


31

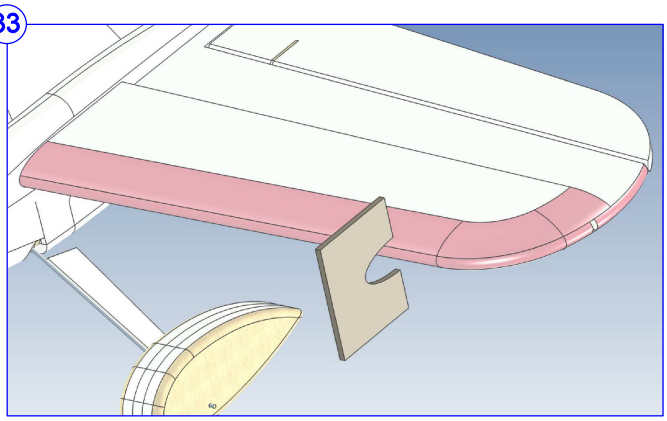




32

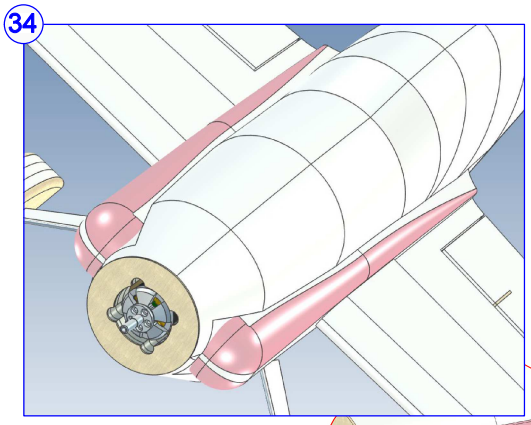


33

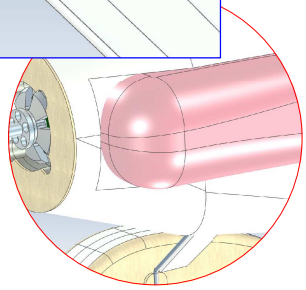


Nasenleiste gemäß Konturschablone verrunden (oben und unten symmetrisch).
Round the leading edge according to the contour template (symmetrical above and below).

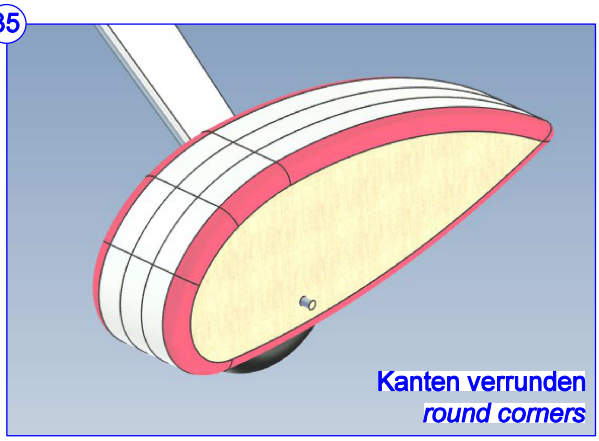
34



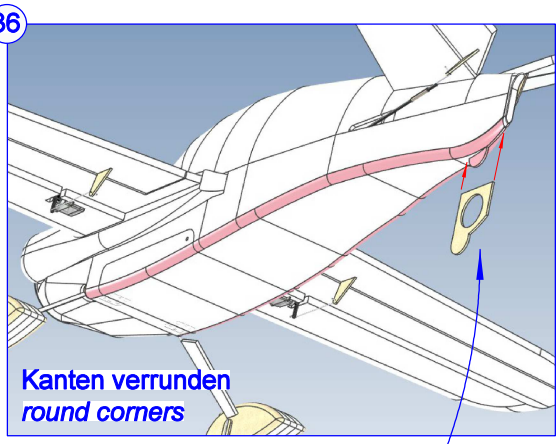
Hamsterbacken verrunden.
Round hamster cheeks (cowling).



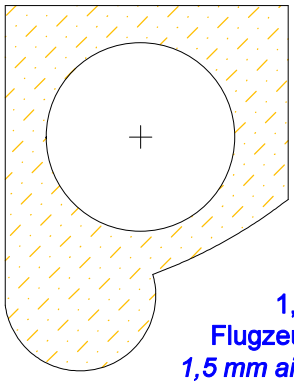
35



36

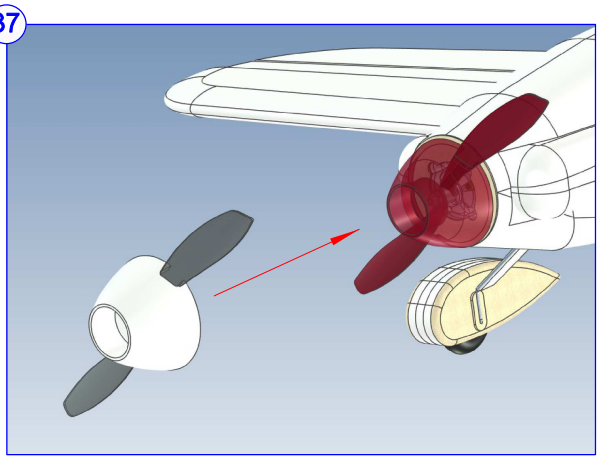


Heckrad-Dummy als Schleifsporn
Rear wheel dummy as a grinding spur

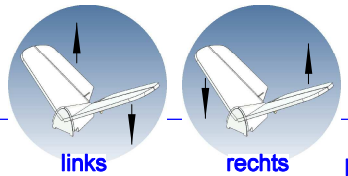


36
1,5 mm
Flugzeugsperrholz
1,5 mm aircraft plywood

37



Spinner-Ø 62 mm. Für vorbildgetreue Optik: Spitze bei Ø 28 mm einkürzen.
Spinner Ø 62 mm. For a scale look: shorten the tip at Ø 28 mm.

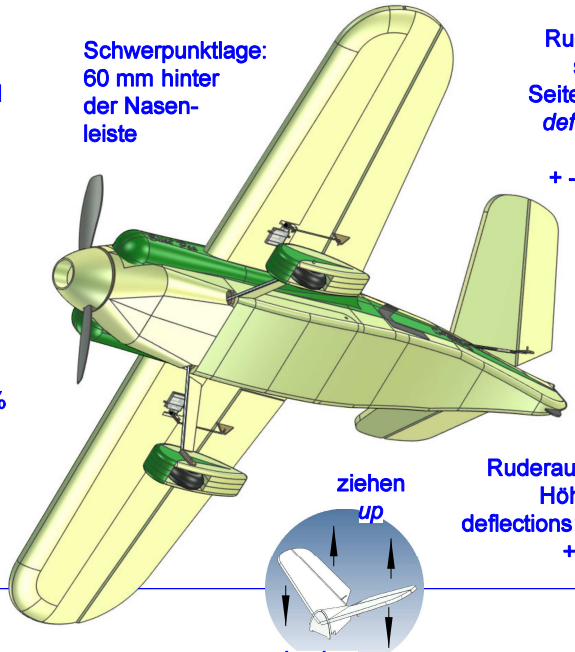


Ruderausschläge Querruder:
deflections aileron:
+ - 15 mm

Die Swee' Pea fliegt mit dem vorgeschlagenen Antrieb sehr kraftvoll und rasant. Starten Sie sie daher zunächst nur mit etwa Halbgas, bis Sie die Ruderreaktionen kennen und das Modell eingeflogen haben.
Es empfiehlt sich, bei den ersten Flügen die Ausschläge um ca. 70% zu verringern (Dual Rate) und generell mit EXPO nach Belieben zu entschärfen.
Das Modell kann trotzdem auch langsam geflogen werden, weil das KF-Profil im Grenzbereich sehr gutmütig ist und keine Abrisstendenzen besitzt.

The Swee 'Pea flies very powerfully and rapidly with the proposed drive. You should therefore initially only start at about half throttle until you really know the rudder reactions.
It is advisable to reduce the deflections by approx. 70% on the first flights (dual rate) and generally to defuse them with EXPO at will.
The model can still be flown slowly because the KF profile is very good-natured and has no tendency to stall.

Schwerpunktlage:
60 mm hinter
der Nasen-
leiste



Ruderaus-
schläge
Seitenruder:
deflections
rudder:
+ - 16 mm

ziehen
up

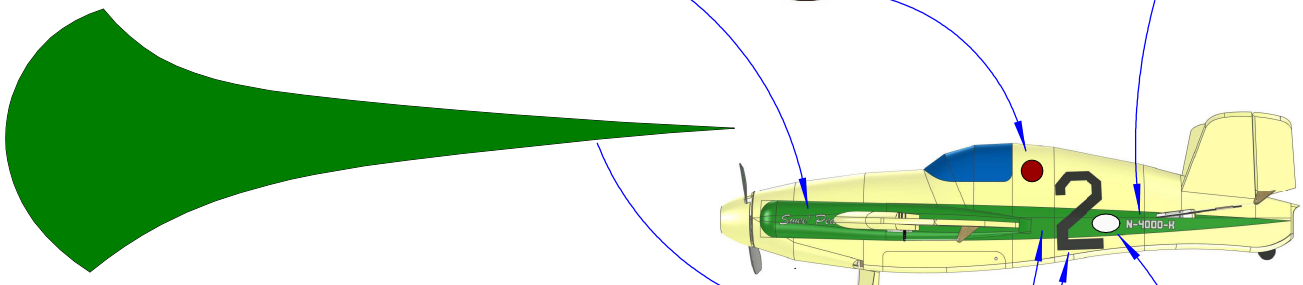
drücken
down

Ruderausschläge
Höhenruder:
deflections elevator:
+ - 12 mm

Swee' Pea

KENDALL
The 2000 MILE OIL

N-4000-K



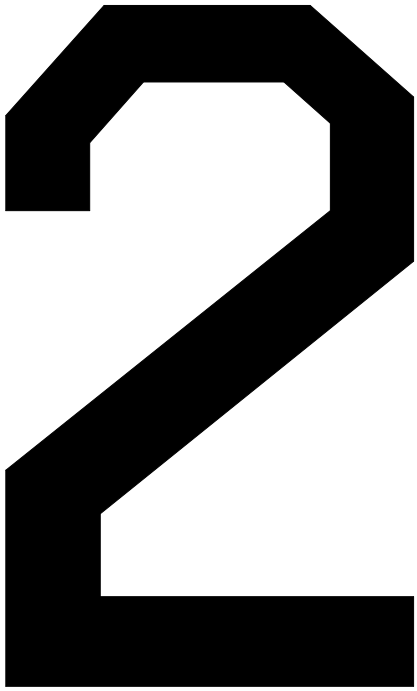
SOHIO

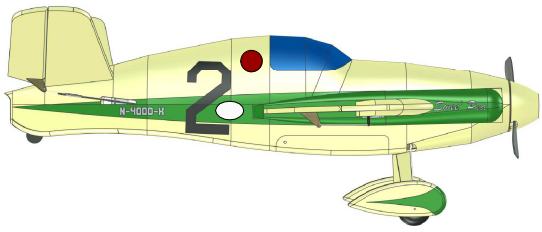
a

b

b

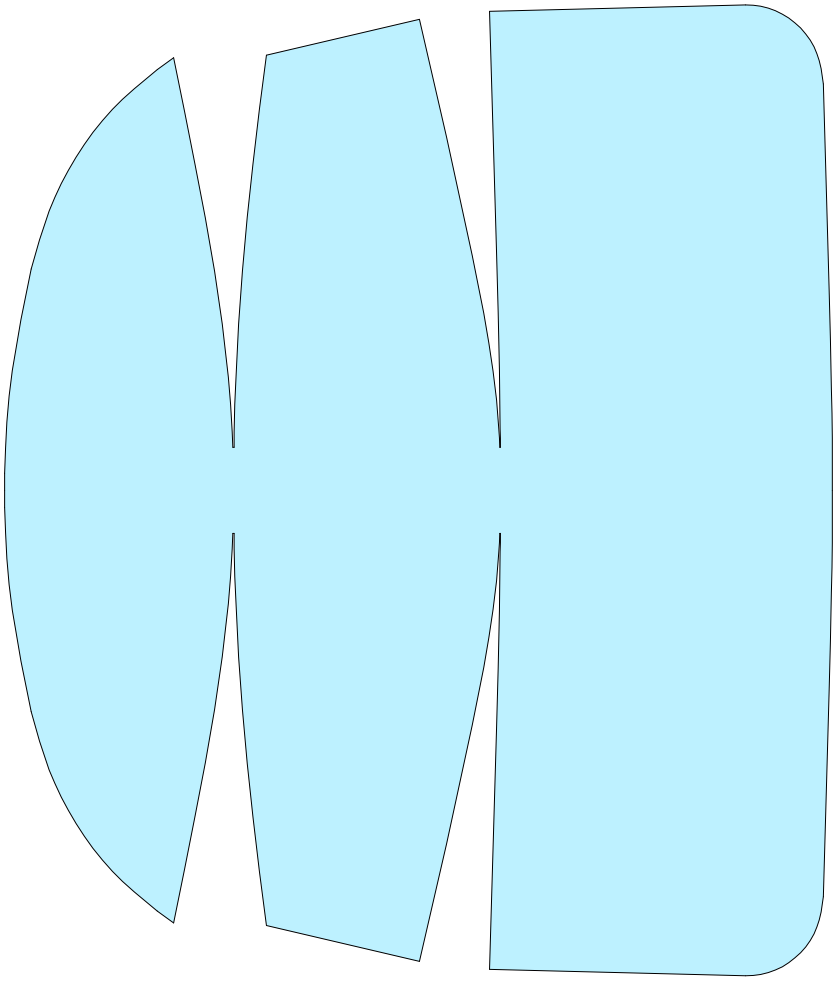
a

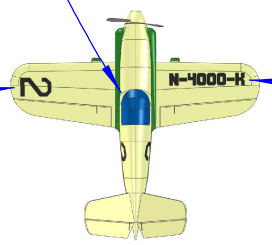


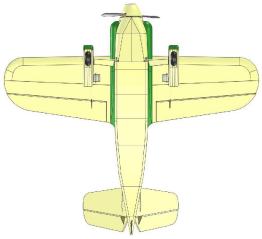


Farbcodes:

Basisfarbe: RAL 1015 Hellelfenbein
Grün: RAL 6002 Laubgrün
sowie schwarze und weiße Beschriftung,
und Kabinenhaube nach Belieben







Die abgebildeten Elemente gibt es als .studio3-Plot-Dateien unter www.lange-flugzeit.de

The elements like shown above are available as .studio3 plot files at www.lange-flugzeit.de