

# Bannspërber

Notice de montage



*Ecirtech*

# Bannspërber



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# Bannspërber



## Description

Planeur pur ou motorisé

Envergure : 2975mm

Longueur : 1389mm

Masse 2300g-2500g

Charge alaire 41g/m<sup>2</sup> – 45g/m<sup>2</sup>

Moteur : Xpower 3522/5 LS ou Hacker A30-12XL Glider

Hélice repliable 14x8mm, porte pale 37mm.

Accus : 3s 4000mah épaisseur maximum 22mm.

Servos : taille mini de plus de 3kg sous 4,8V à pignon métallique.

## Liste fournitures Bannsperber

### Planches découpées.

- Balsa 2mm planches n° 1 à 4
- Balsa 3mm planches n°5 à 6
- Balsa 5mm planches n°7
- Balsa 6mm planche n°8
- Balsa 10mm planchen°9
- CTP 0.8mm planche n°10
- CTP 1.5mm planche n°11
- CTP 2mm planche n°11 bis
- CTP 3mm peuplier n°12 à 17
- Gabarits peuplier 3mm x3
- Pièces en CTP de bouleau 3mm
- Pièce pour gabarit CTP 6mm peuplier
- Quille en CTP bouleau 6mm
- Patin de quille en inox 2mm
- Plaque fibre époxy 1,5mm

## Baguettes bois 1000mm

- Baguette pin 3x2mm x 2
- Baguette pin 3x3mm x 8
- Baguette pin 5x2mm x 4
- Baguette pin 5x3mm x25
- Baguette pin 5x5mm x 6
- Baguette tilleul 4x4mm x 1
- Baguette tilleul 5x5mm x 3
- Baguette balsa 4x4mm x 4
- Baguette balsa 5x4mm x 7
- Baguette balsa 5x5mm x 2
- Pin 21x13x8mm x 2
- Rond hêtre 60x4mm x 1
- Baguette pin x 1  
170x10x3mm

## Accastillages

- Ecrous griffe 3mm x 4
- Aimants 5x3mm x 4
- Aimants 10x3mm x 8
- Chapes acier avec x 4  
embouts percés
- Chapes acier avec x 4  
embouts à souder
- Gaine de commande x 3  
3x2mm
- CAP 1,5mm x 1  
1+0.5m
- Cable de commande x 1  
0,65mm 2m
- Tube de sertissage x 4  
1,5mm
- Tube alu 10x8x7mm x 1  
Renvoi d'angle
- Tube alu x 1  
500x13x12mm
- Jonc fibre de verre x 1  
500x12mm
- Tube alu x 1  
400x6x5mm
- Jonc fibre 400x5mm x 1
  
- Tube alu x 1

## Bannsperber

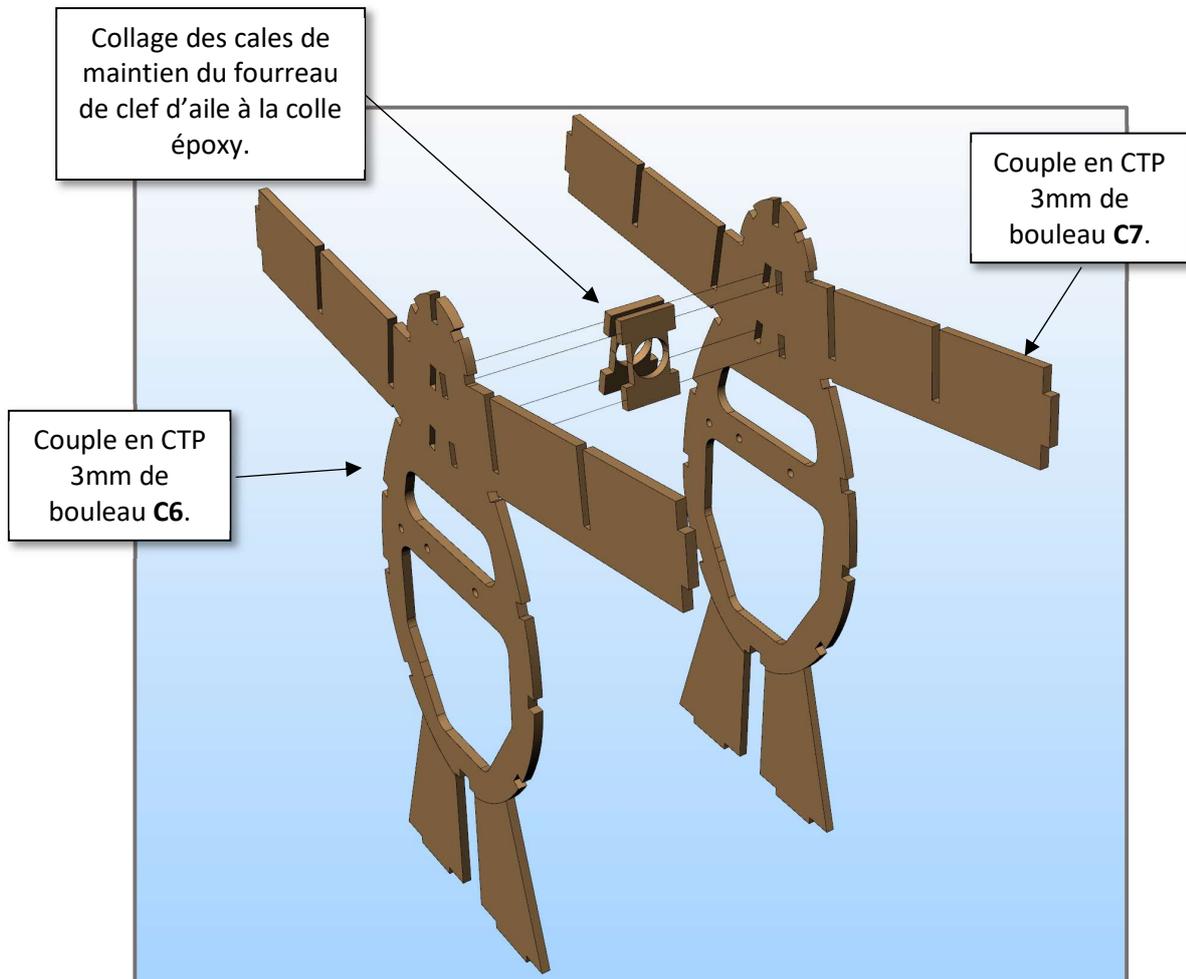
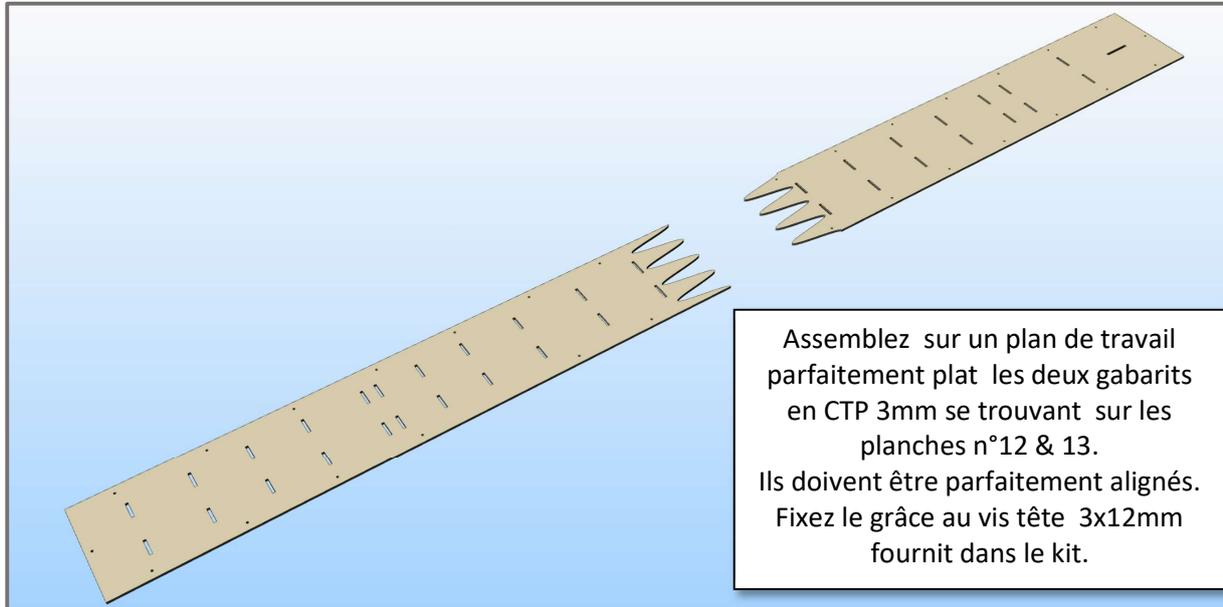
250x7x6mm	
- Jonc fibre	x 1
250x6mm	
- Tube alu	x 1
250x5x4mm	
-Jonc fibre	
250x4mm	x 1
- Ecrous 3mm	x 2
- Vis BTR 6x3mm	x 2
- Vis tête fraisée tôle	x 11
2.2x6.5mm	
- Vis tête fraisée tôle	x 6
2.2x9.5mm	
- Vis tête fraisée	x 50
3x12mm	
- Charnière Kawan	x 11
34x16mm	

## Autres

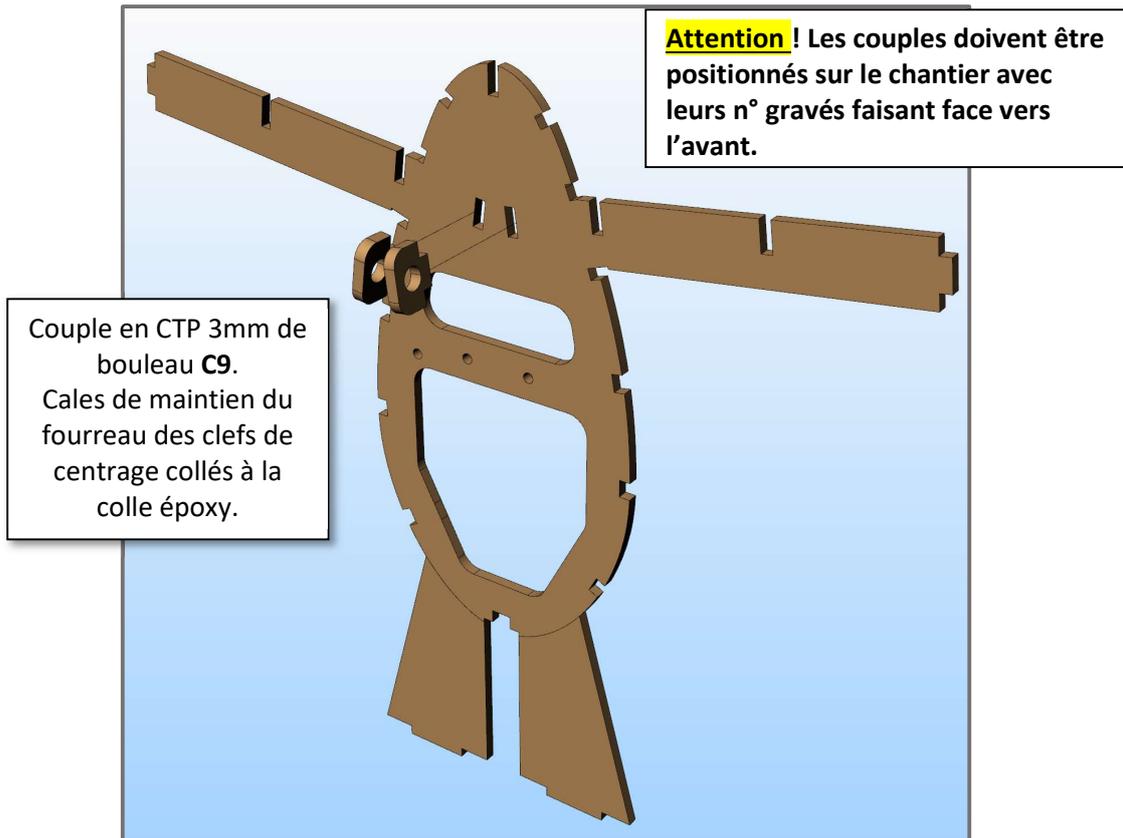
- Plan ailes imprimé	x 1
a l'échelle	
- <u>Autocollants</u>	
Bannsperber	x 1
1935	x 1
Ecirtech	x 2

**Vous pouvez en parallèle visionner toutes les photos de la construction sur le site, sur la page du Bannsperber pour vous aider à visualiser toutes les étapes de la construction.**

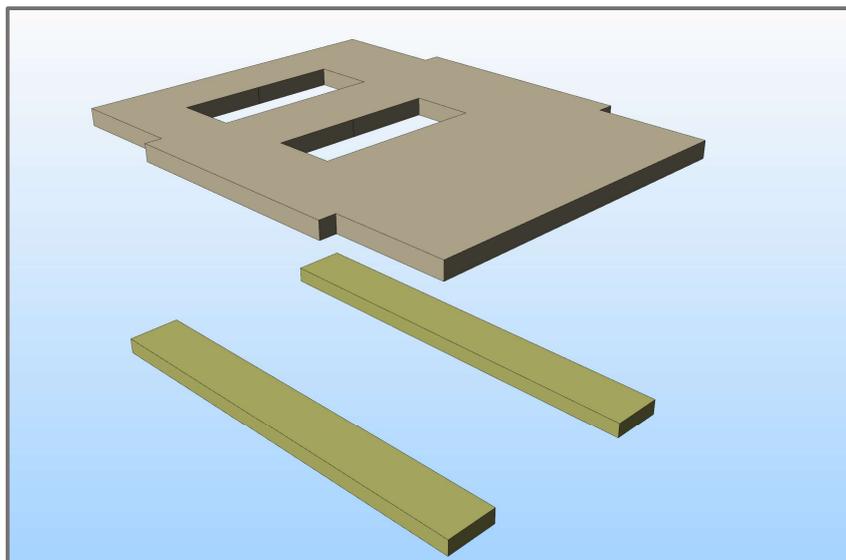
## Fuselage



# Bannsperber

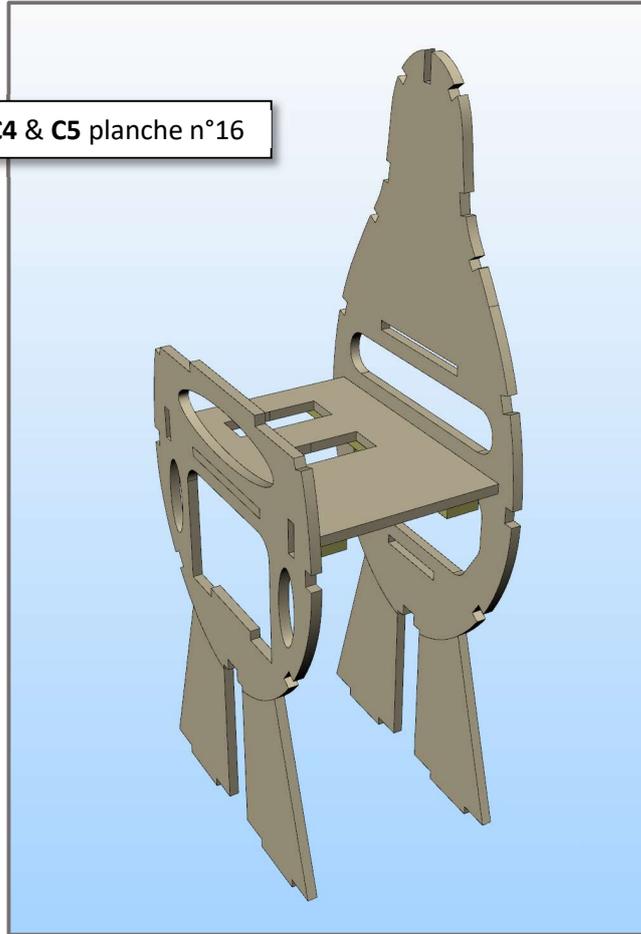


Platines servos noté PS planche n°15.  
Collez les baguettes en pin 10x3mm le long des ouvertures des servos.  
A ce stade vous pouvez déjà percer les trous pour la fixation des servos.



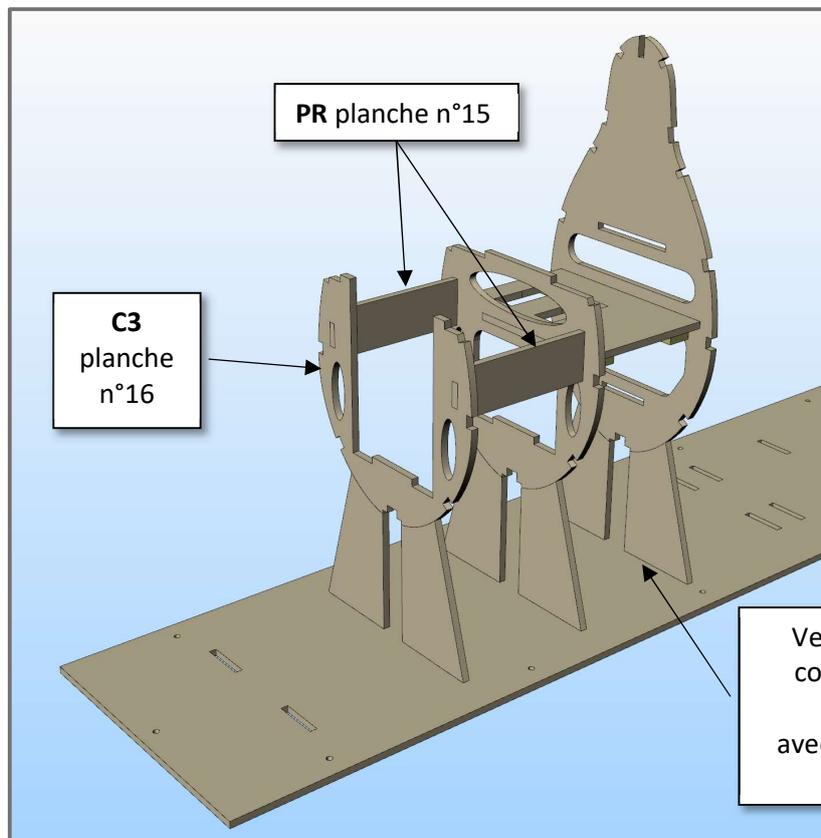
# Bannspërber

C4 & C5 planche n°16



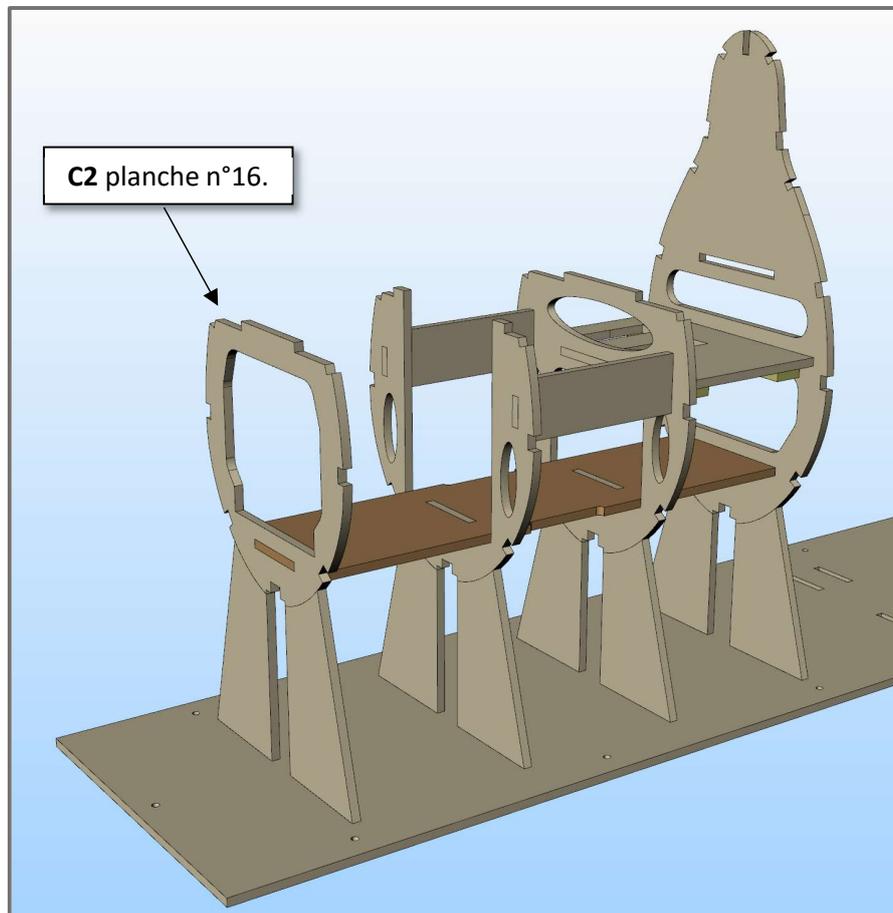
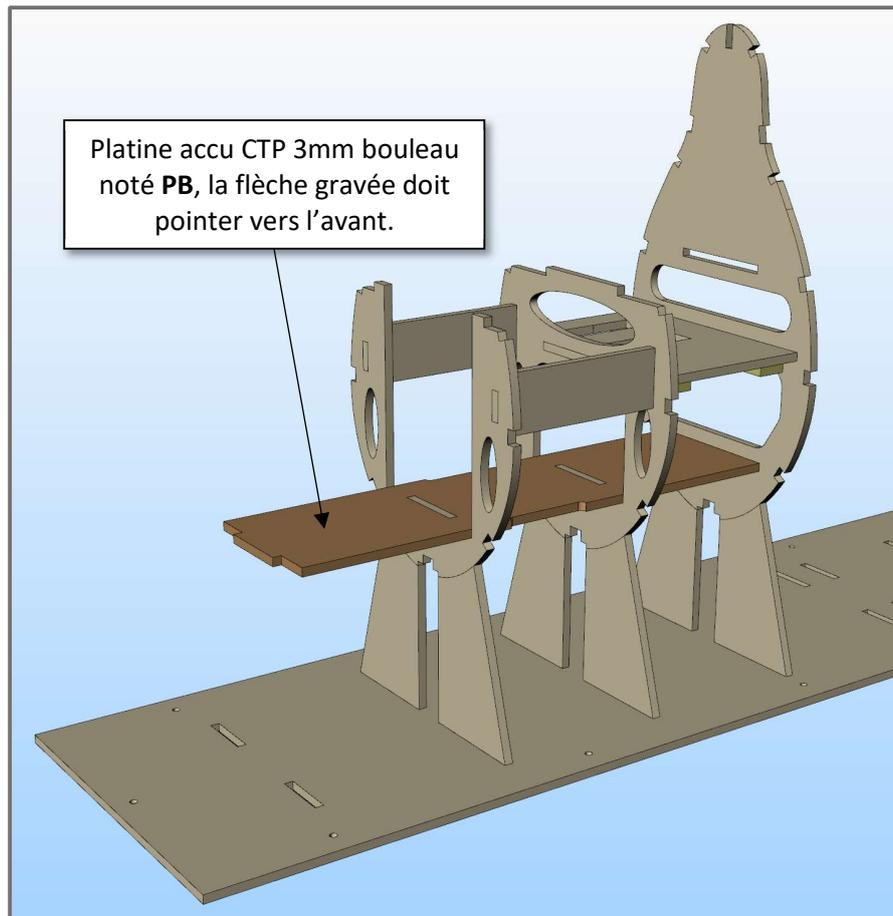
PR planche n°15

C3  
planche  
n°16

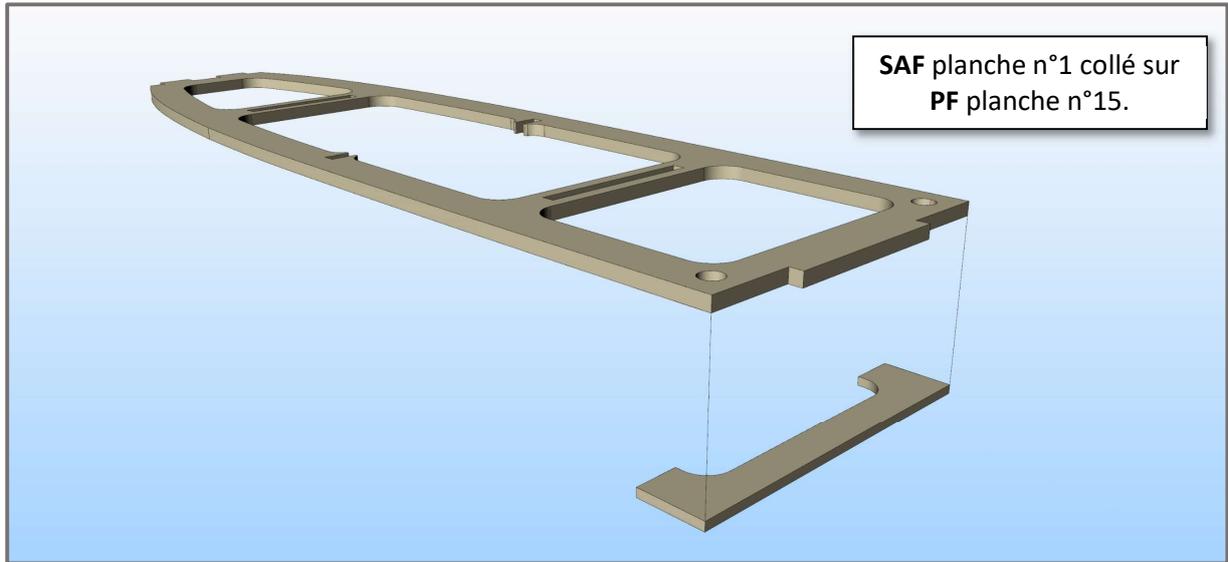


Verrouillez les  
couples sur le  
gabarit  
avec un point de  
colle.

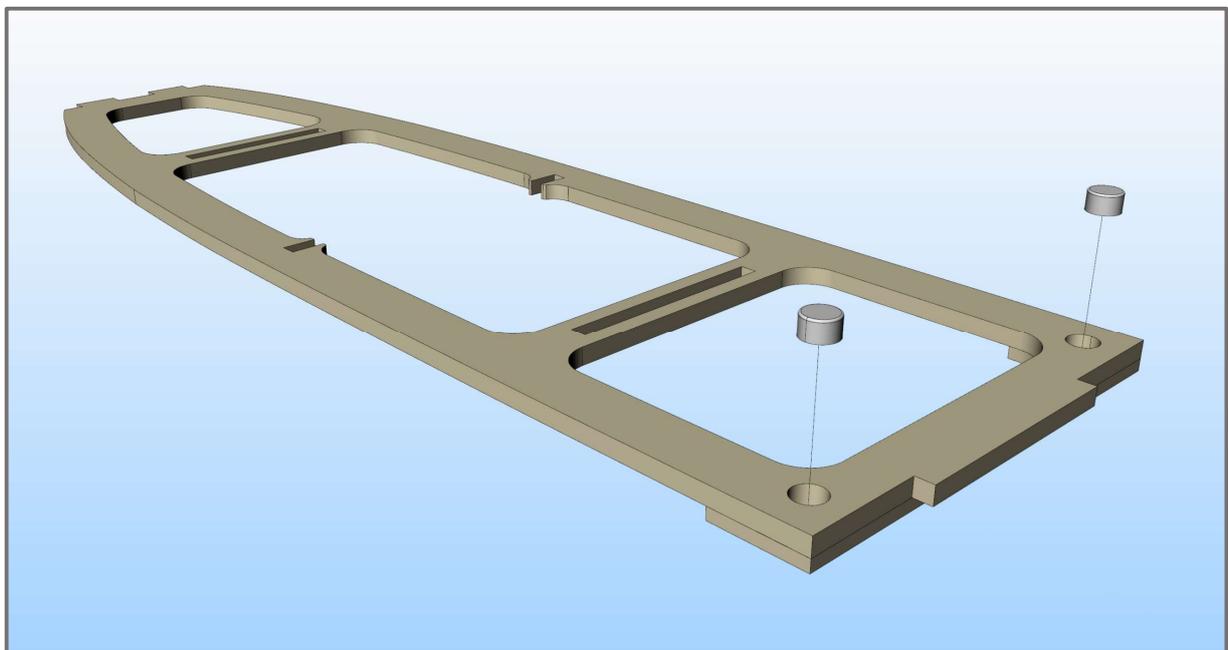
## Bannspërber



# Bannspërber

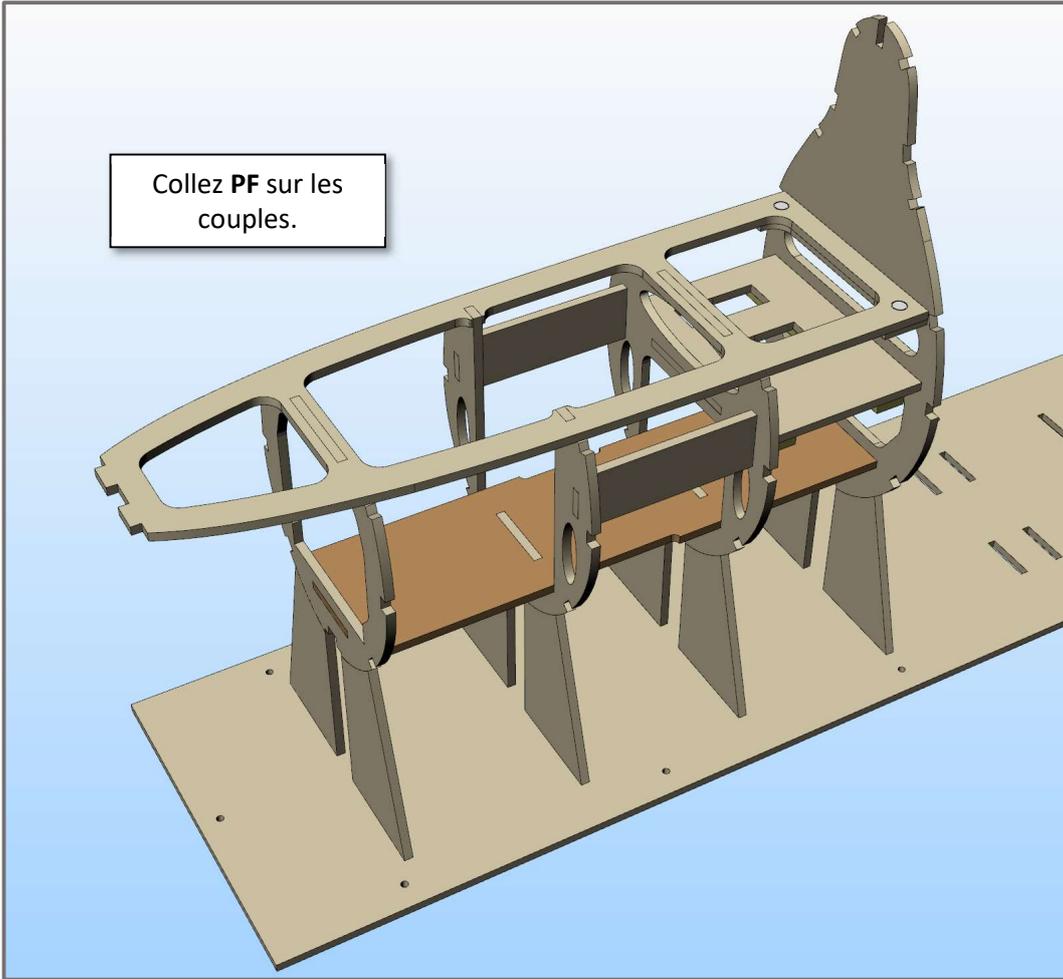


Collez les aimants 5x3mm à la  
colle époxy, pensez à bien poncer  
la surface des aimants avant leurs  
pose.

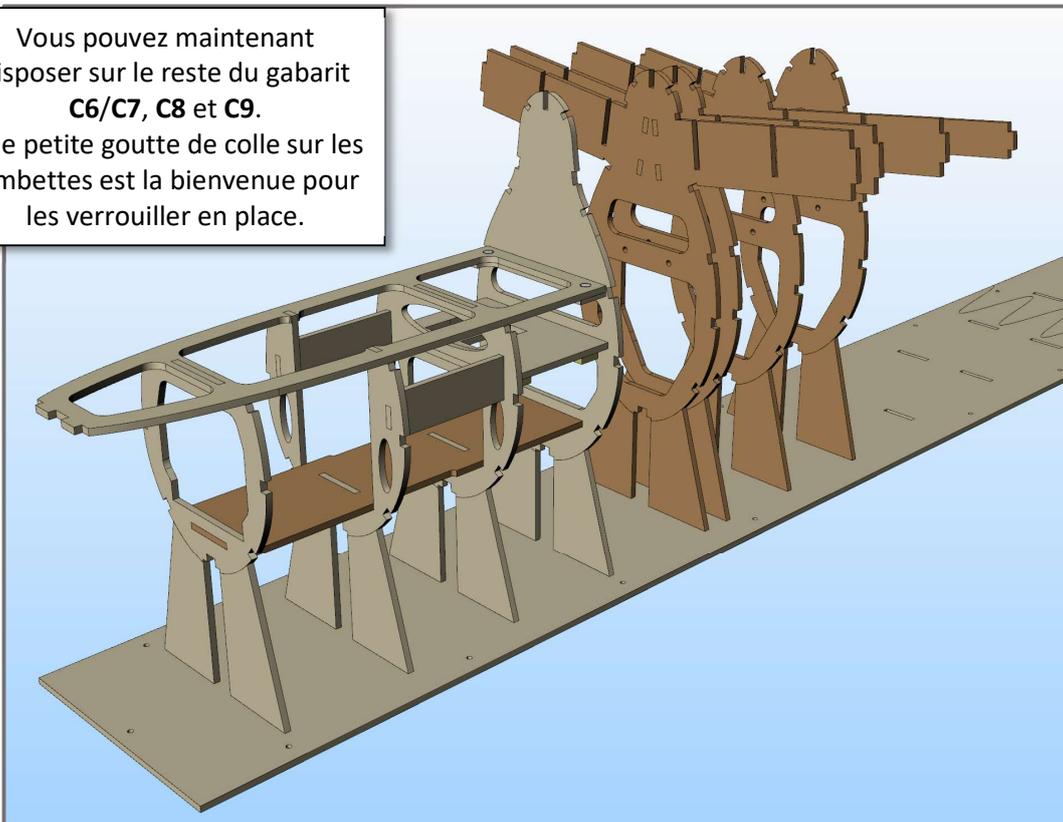


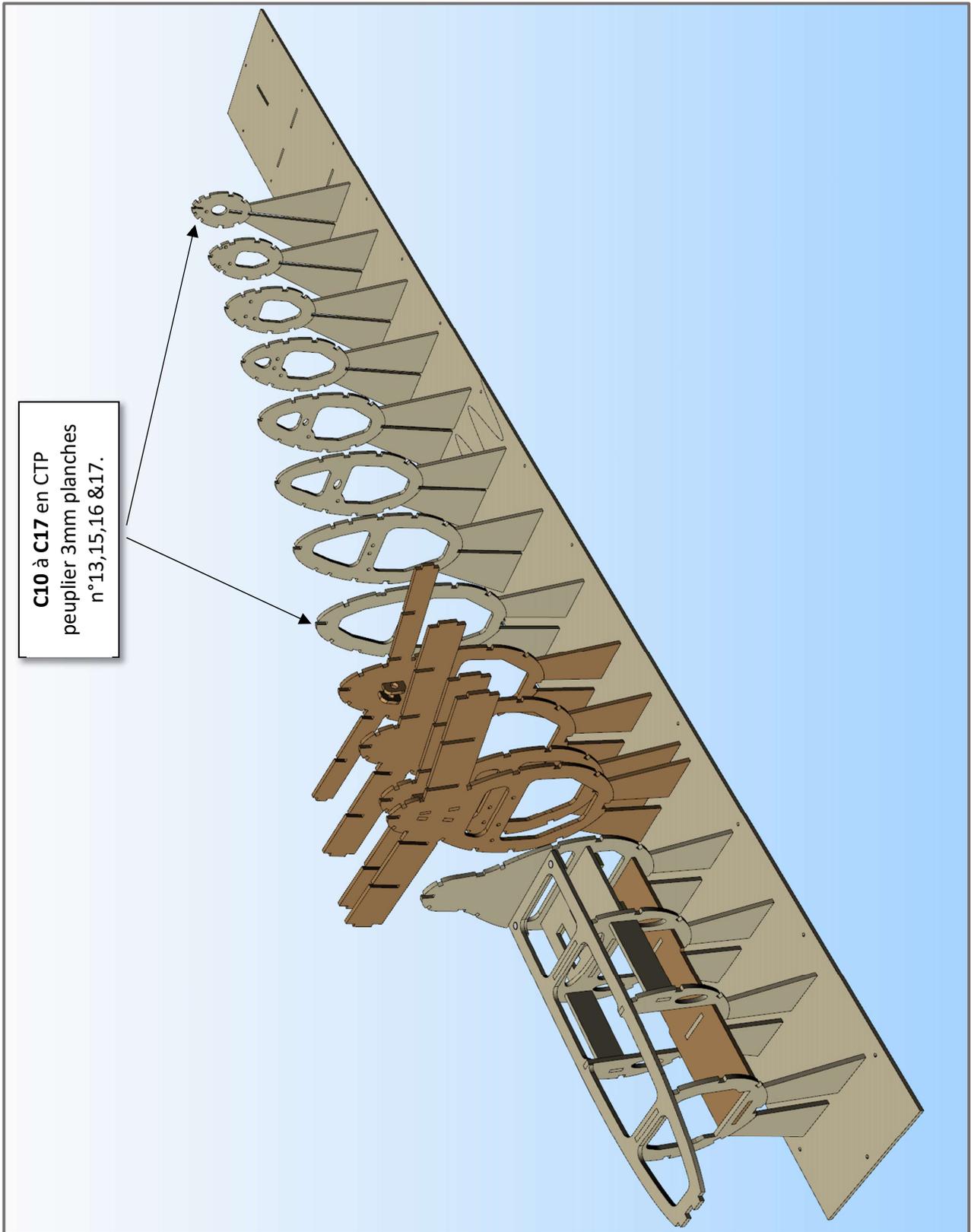
# Bannsperber

Collez **PF** sur les couples.

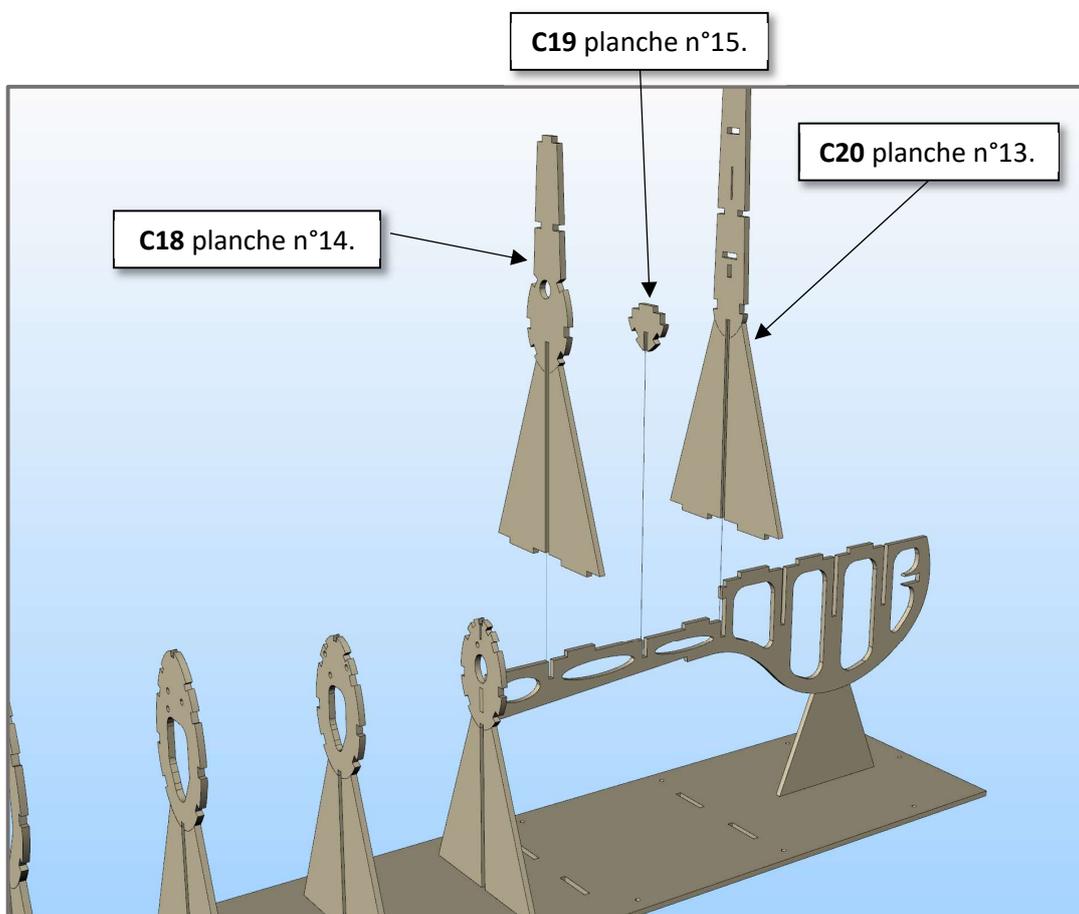
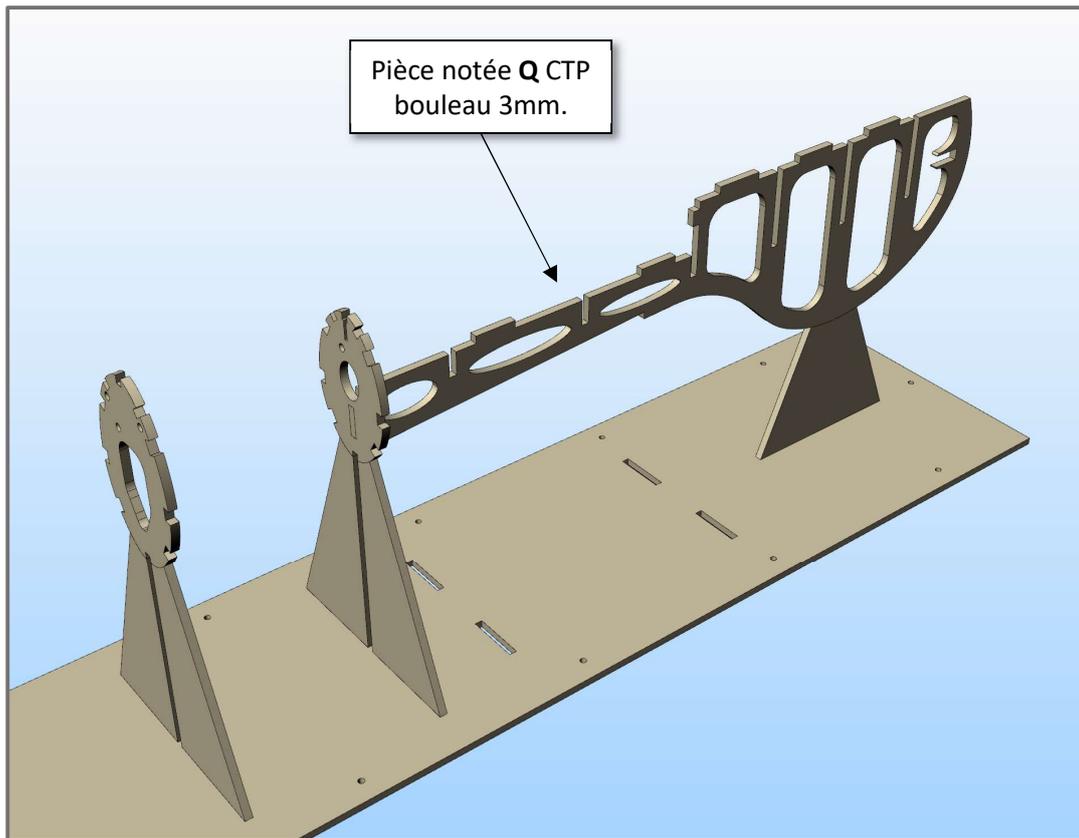


Vous pouvez maintenant disposer sur le reste du gabarit **C6/C7, C8 et C9**. Une petite goutte de colle sur les jambettes est la bienvenue pour les verrouiller en place.

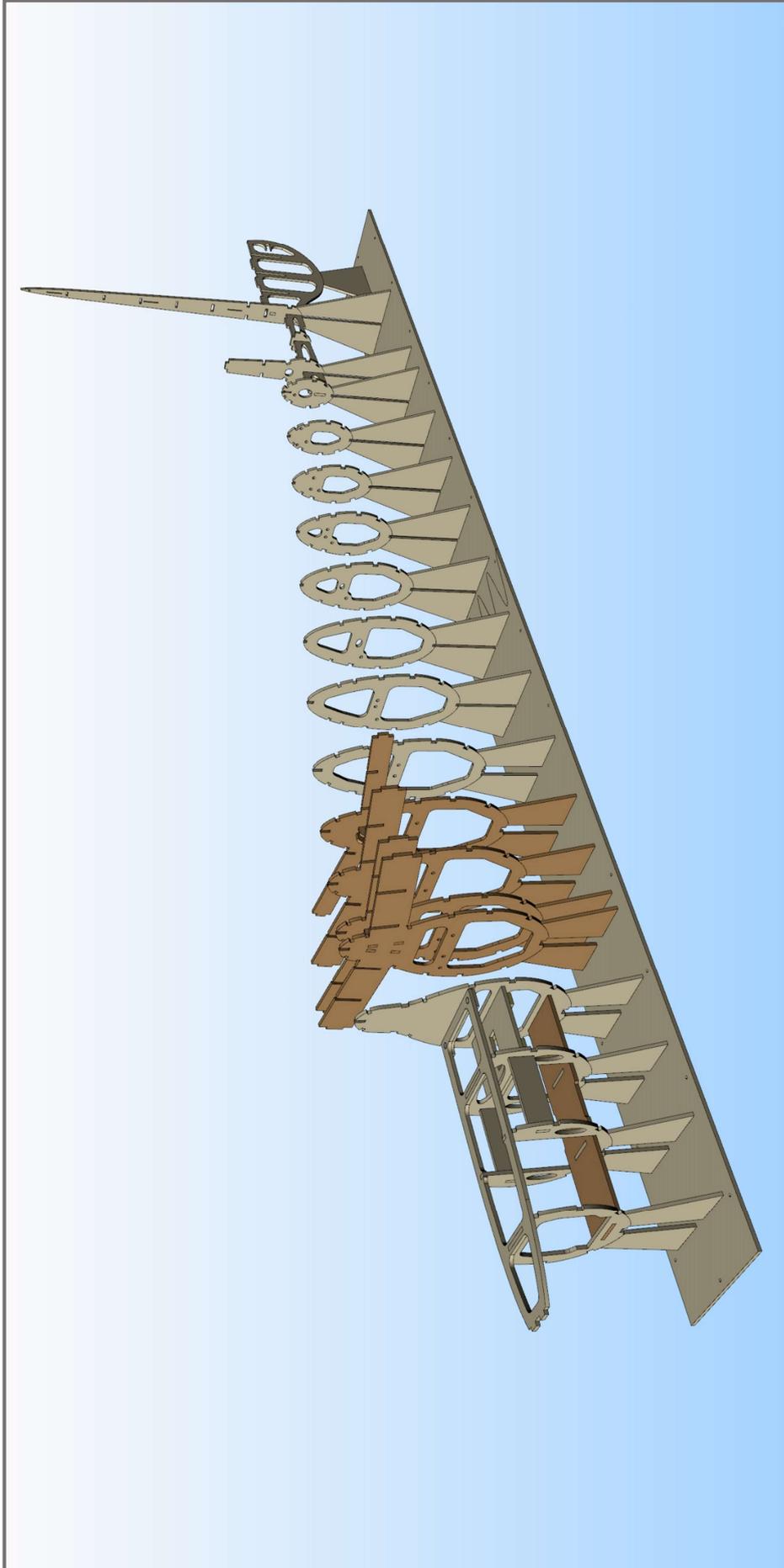




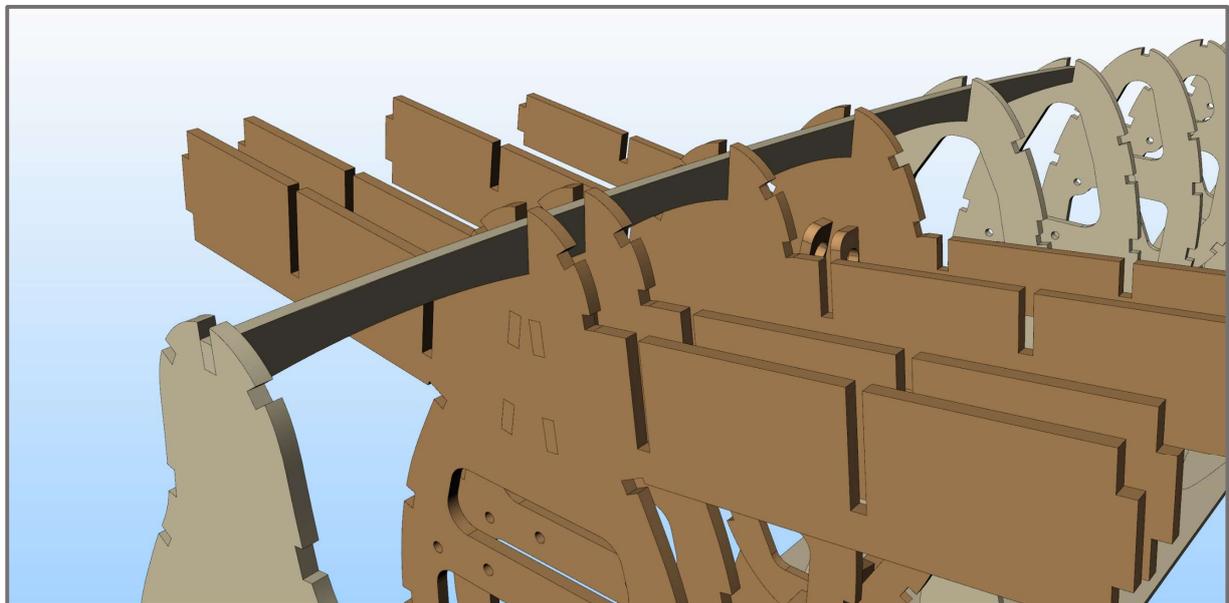
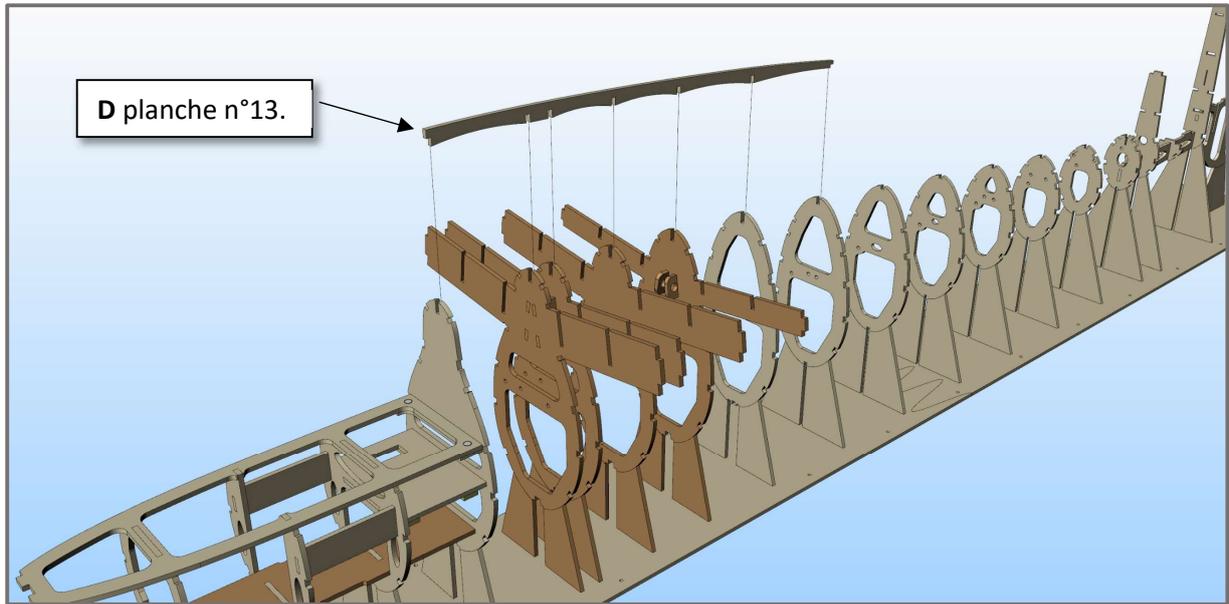
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# Bannsperber

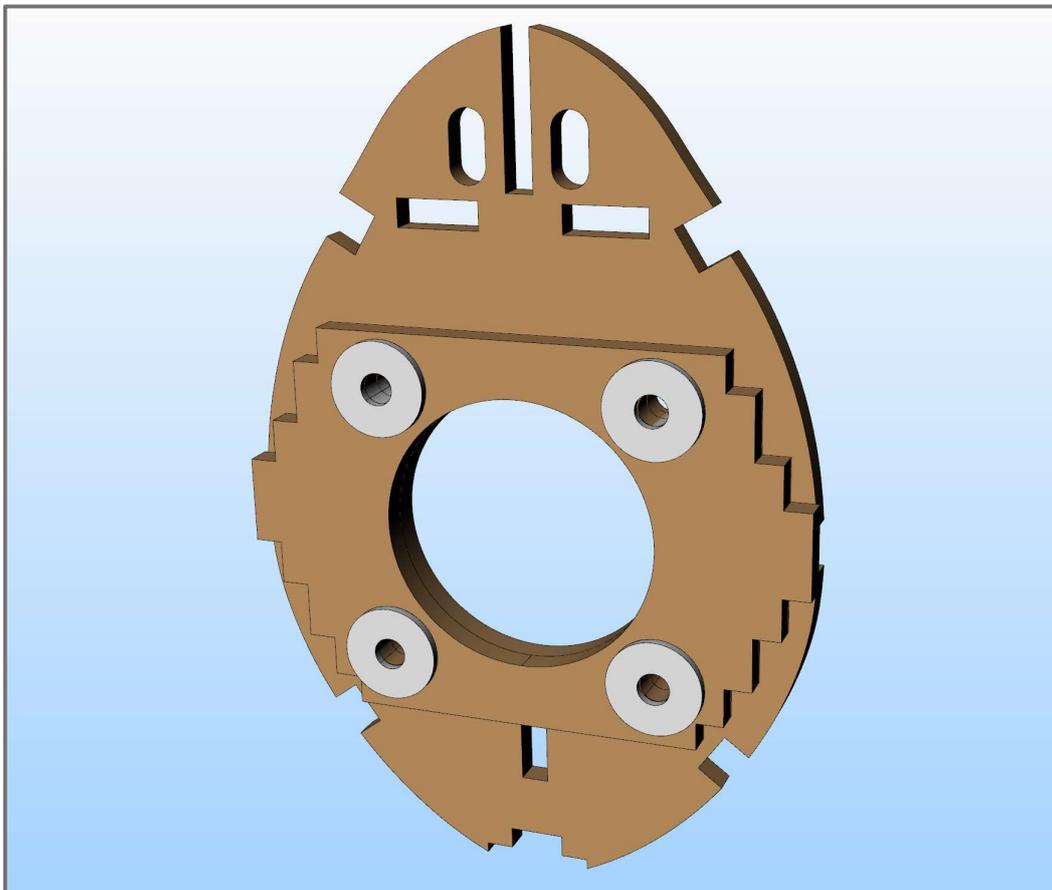
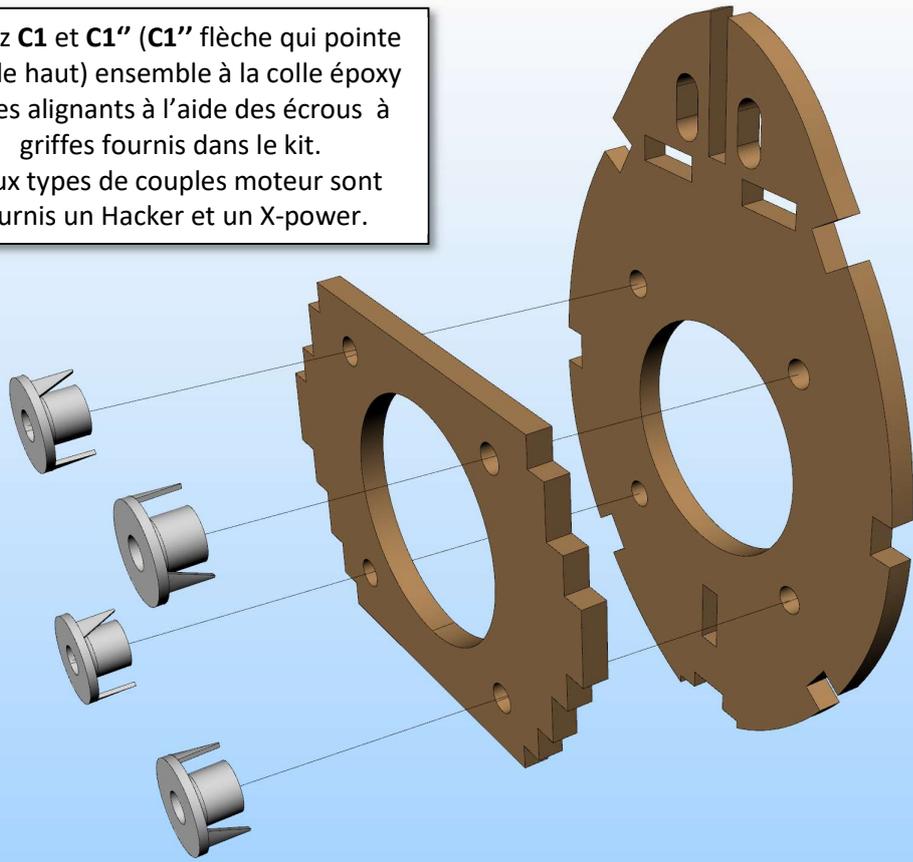


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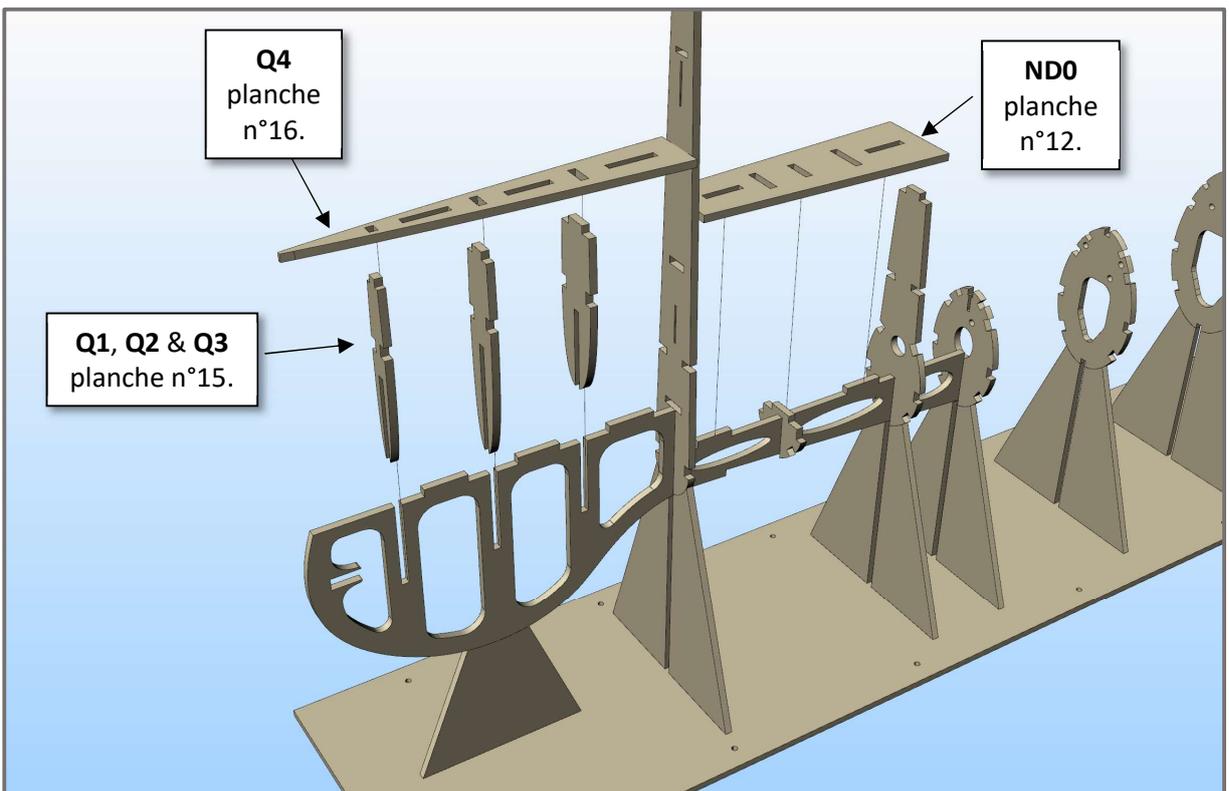
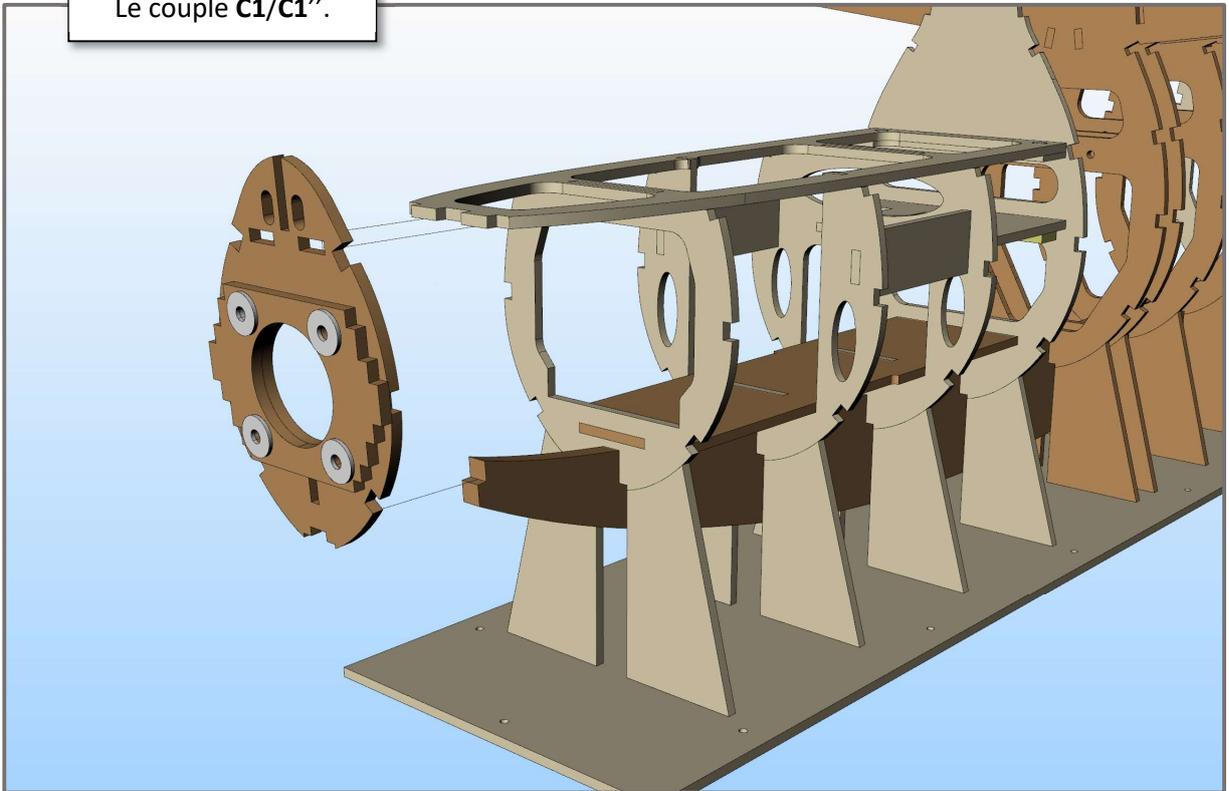
## Bannsperber

Collez **C1** et **C1''** (**C1''** flèche qui pointe vers le haut) ensemble à la colle époxy en les alignants à l'aide des écrous à griffes fournis dans le kit.  
Deux types de couples moteur sont fournis un Hacker et un X-power.

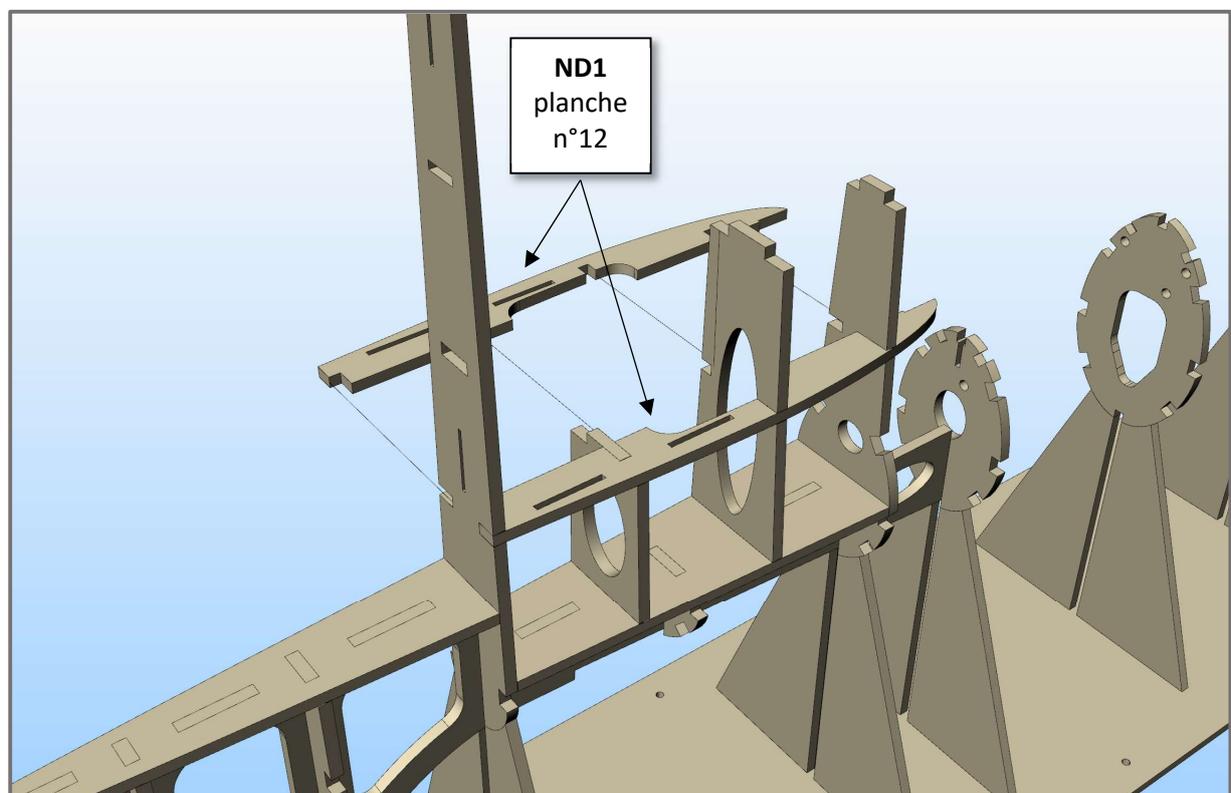
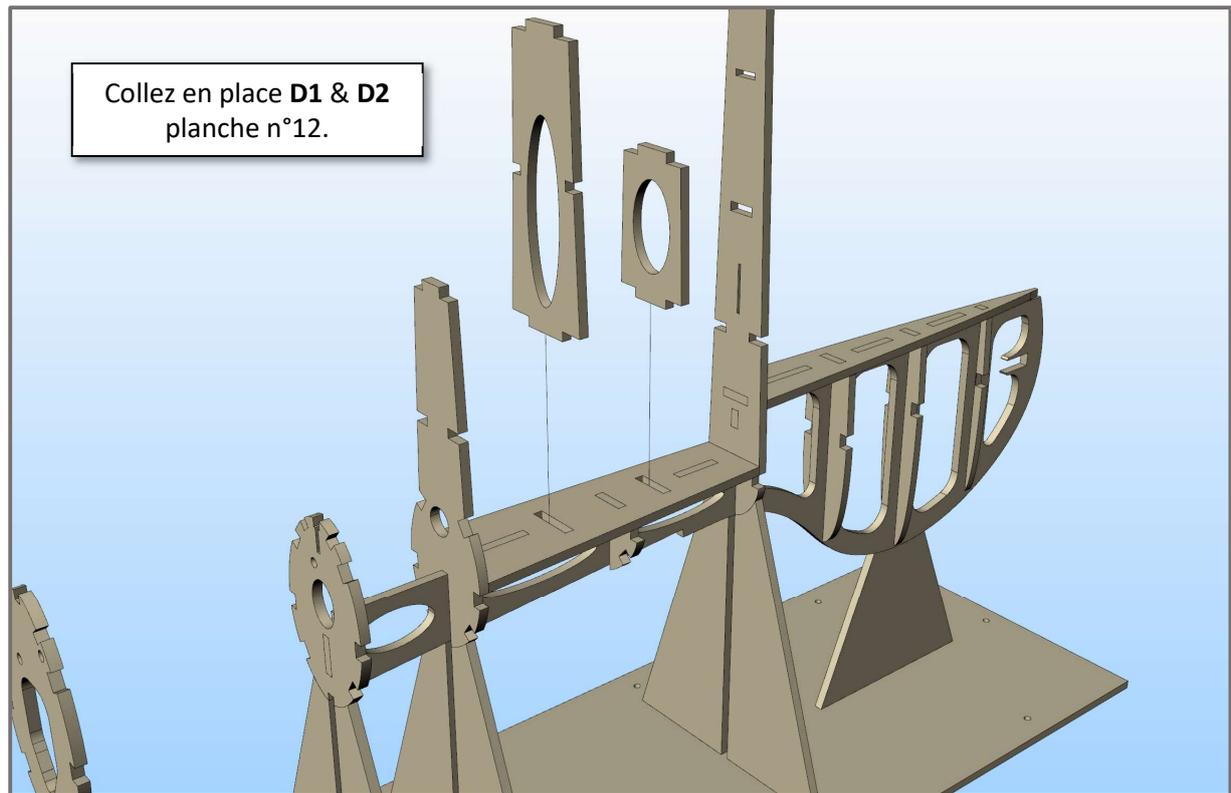


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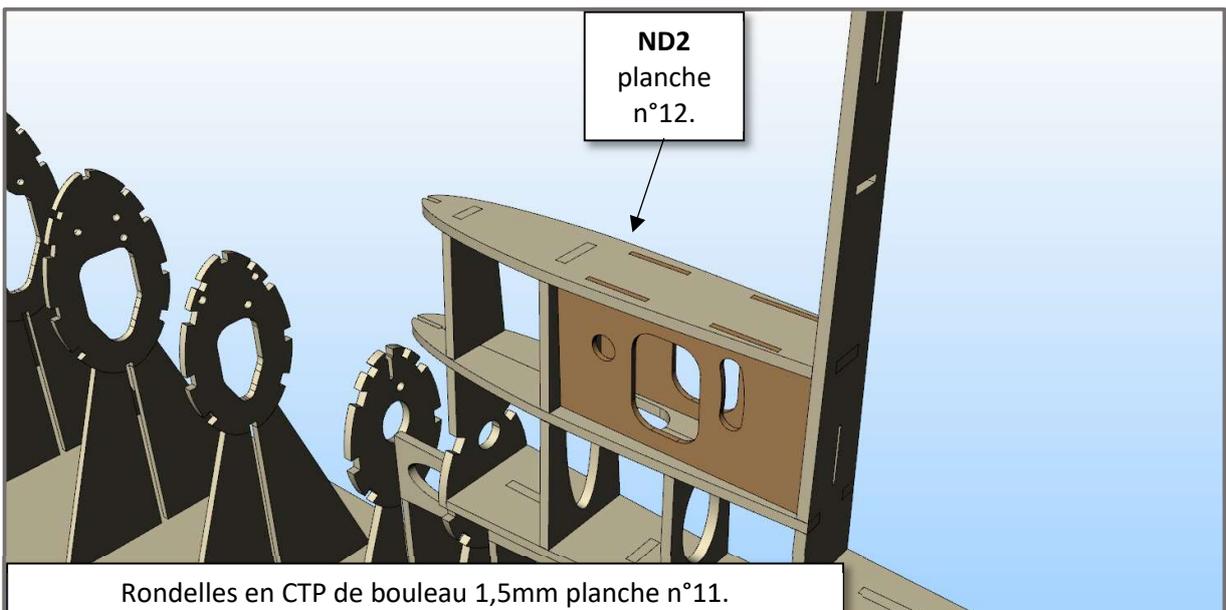
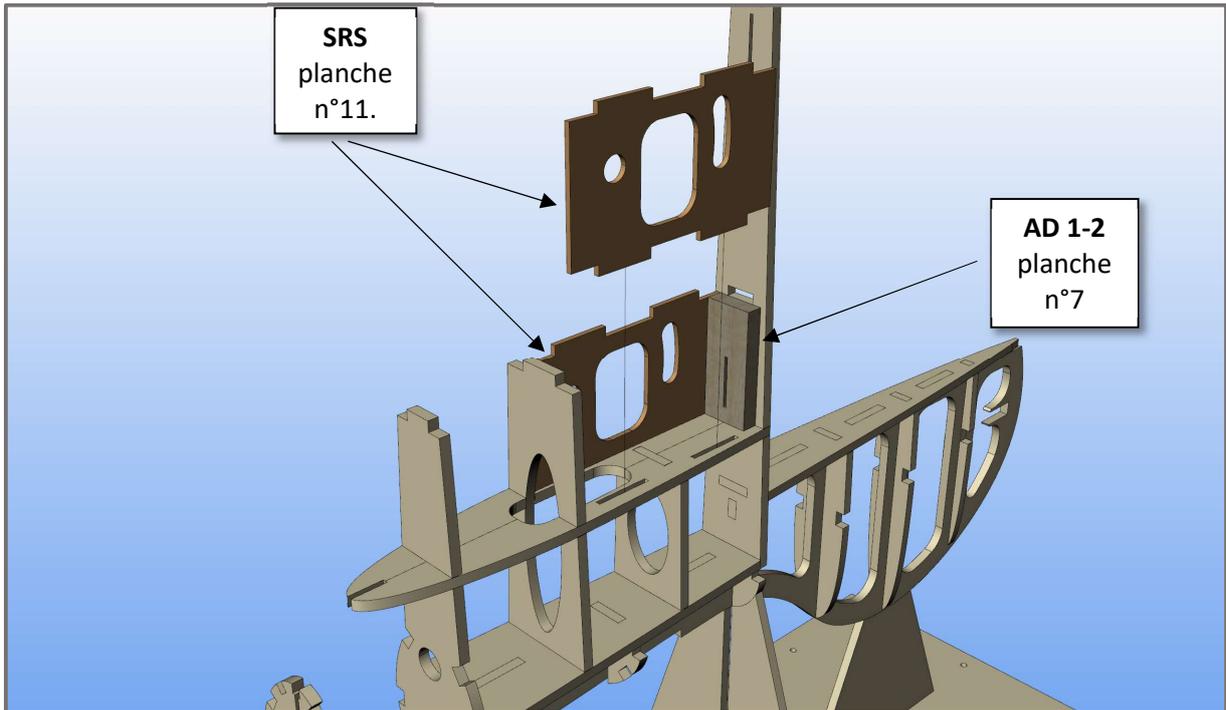
Collez la quille en CTP  
de bouleau 6mm, puis  
collez à la colle époxy  
Le couple **C1/C1''**.



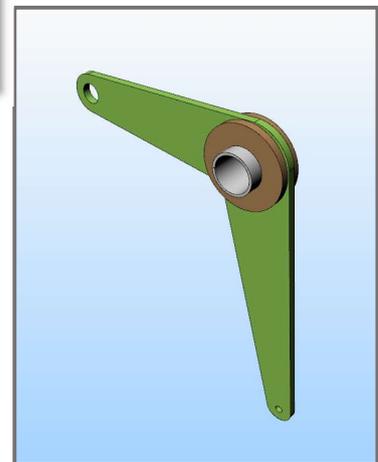
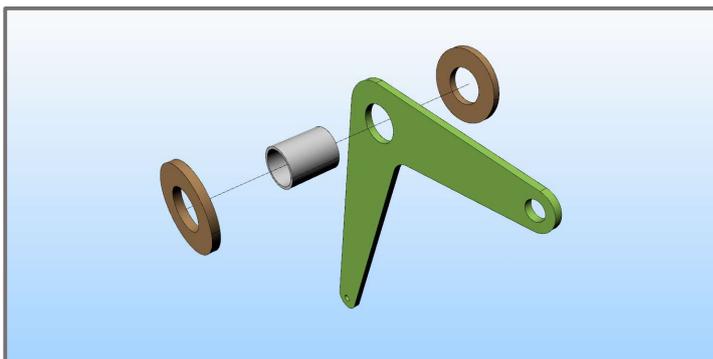
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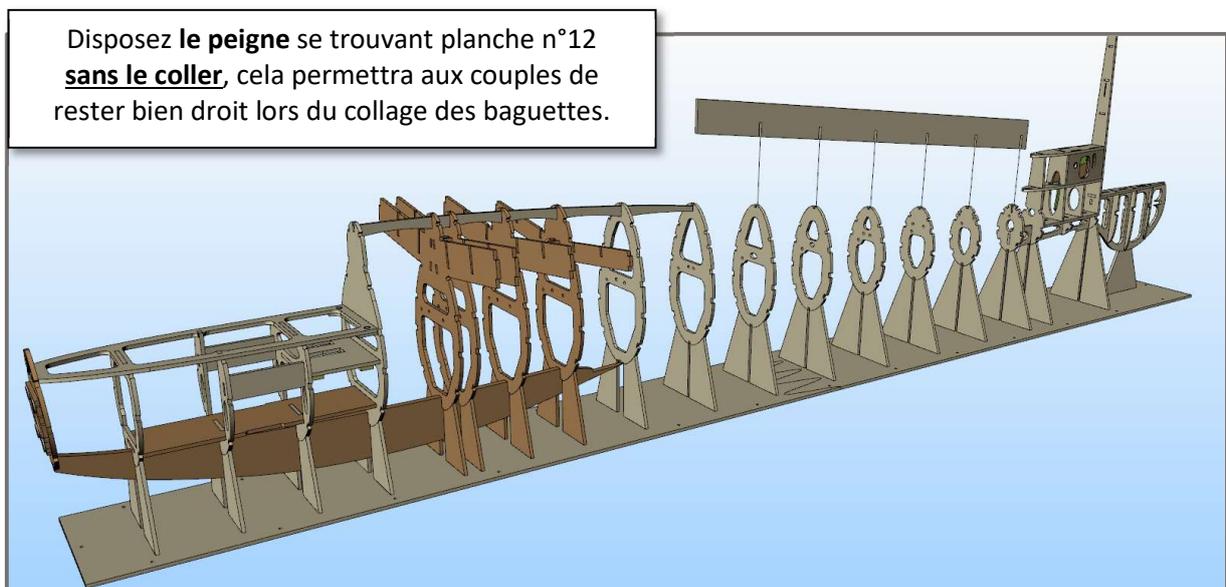
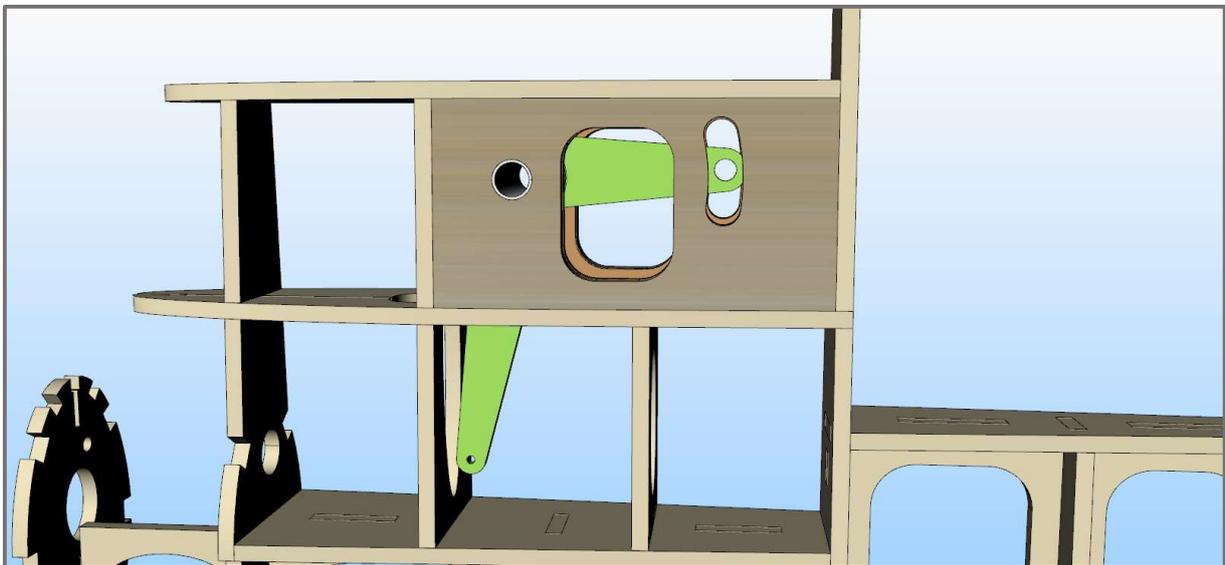
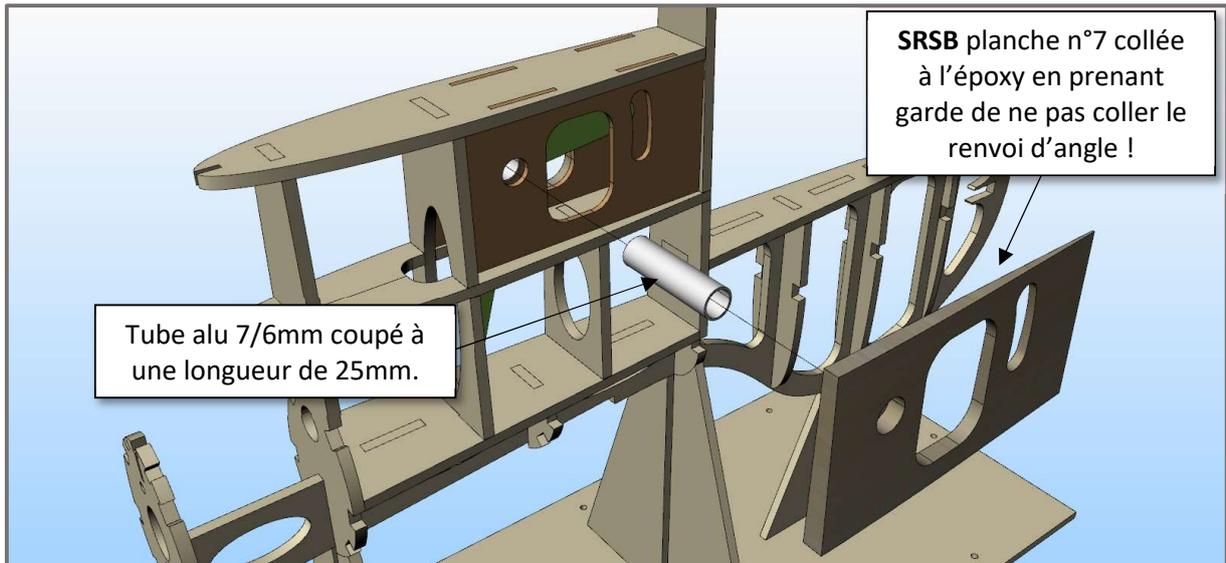
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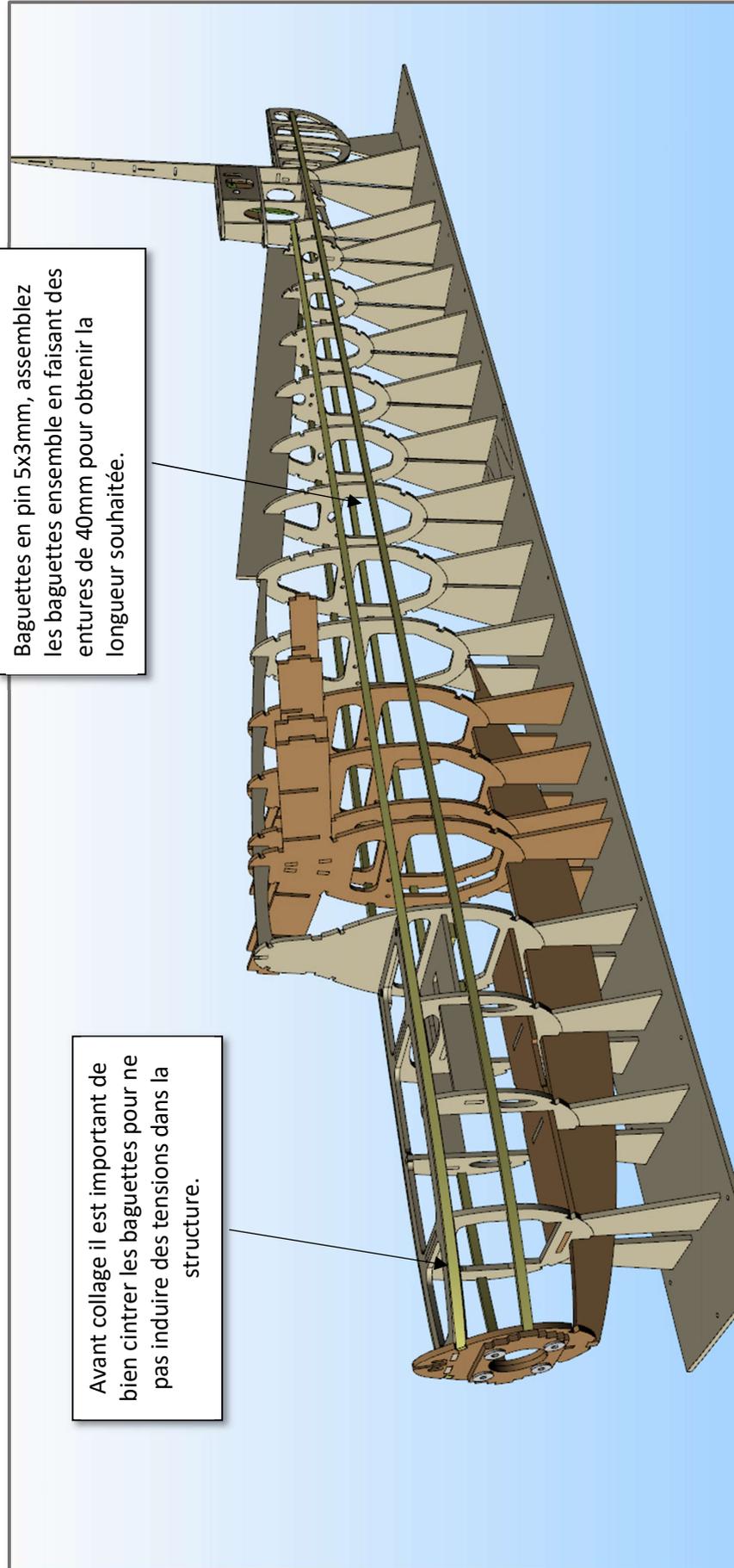
Rondelles en CTP de bouleau 1,5mm planche n°11.  
Tube alu 10x8/7mm.  
Collez l'ensemble à la colle époxy avec le renvoi d'angle en fibre.  
Pensez au préalable à bien poncer les surfaces encollées.



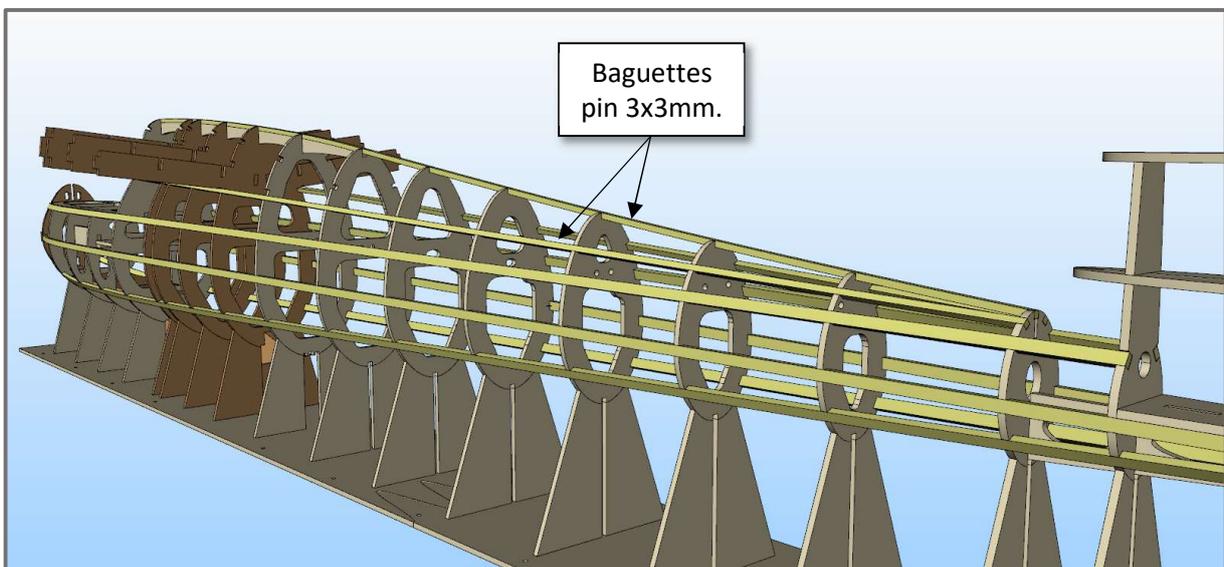
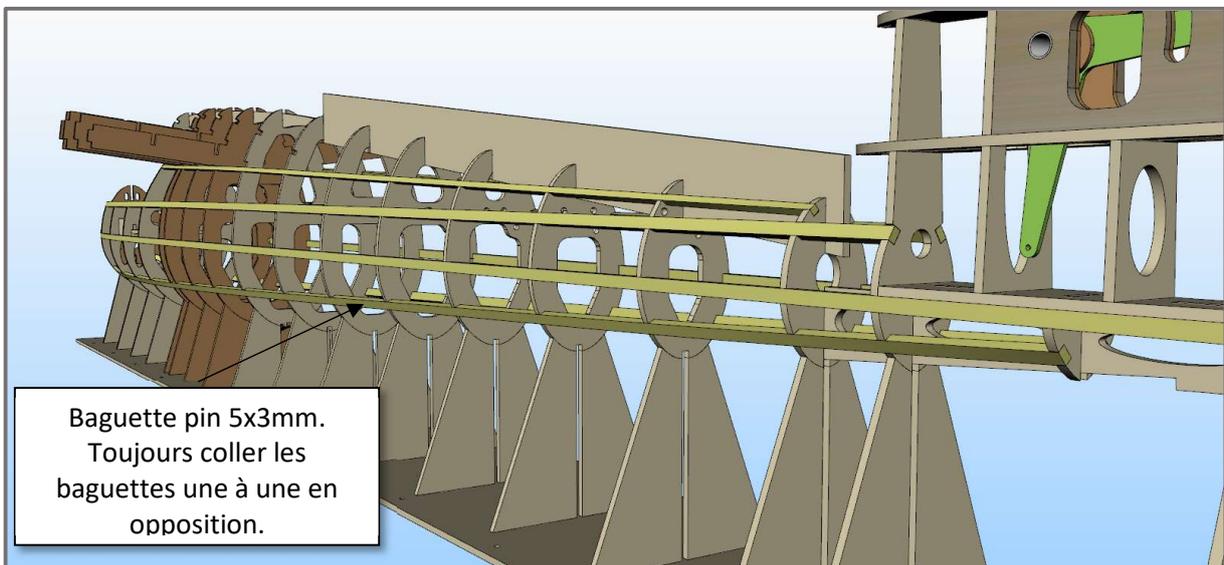
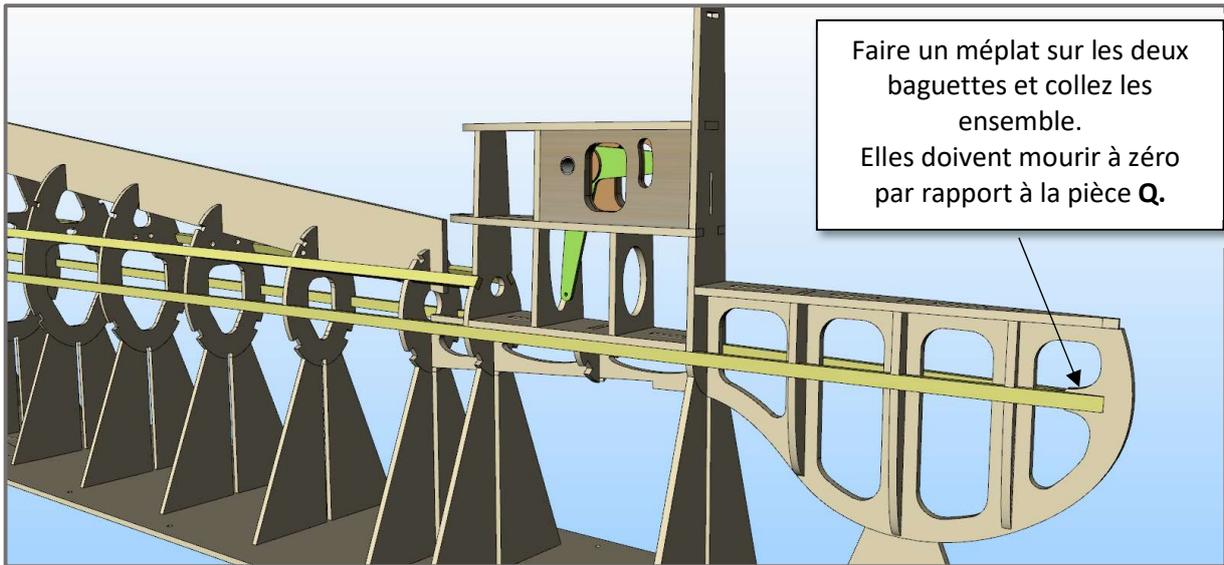
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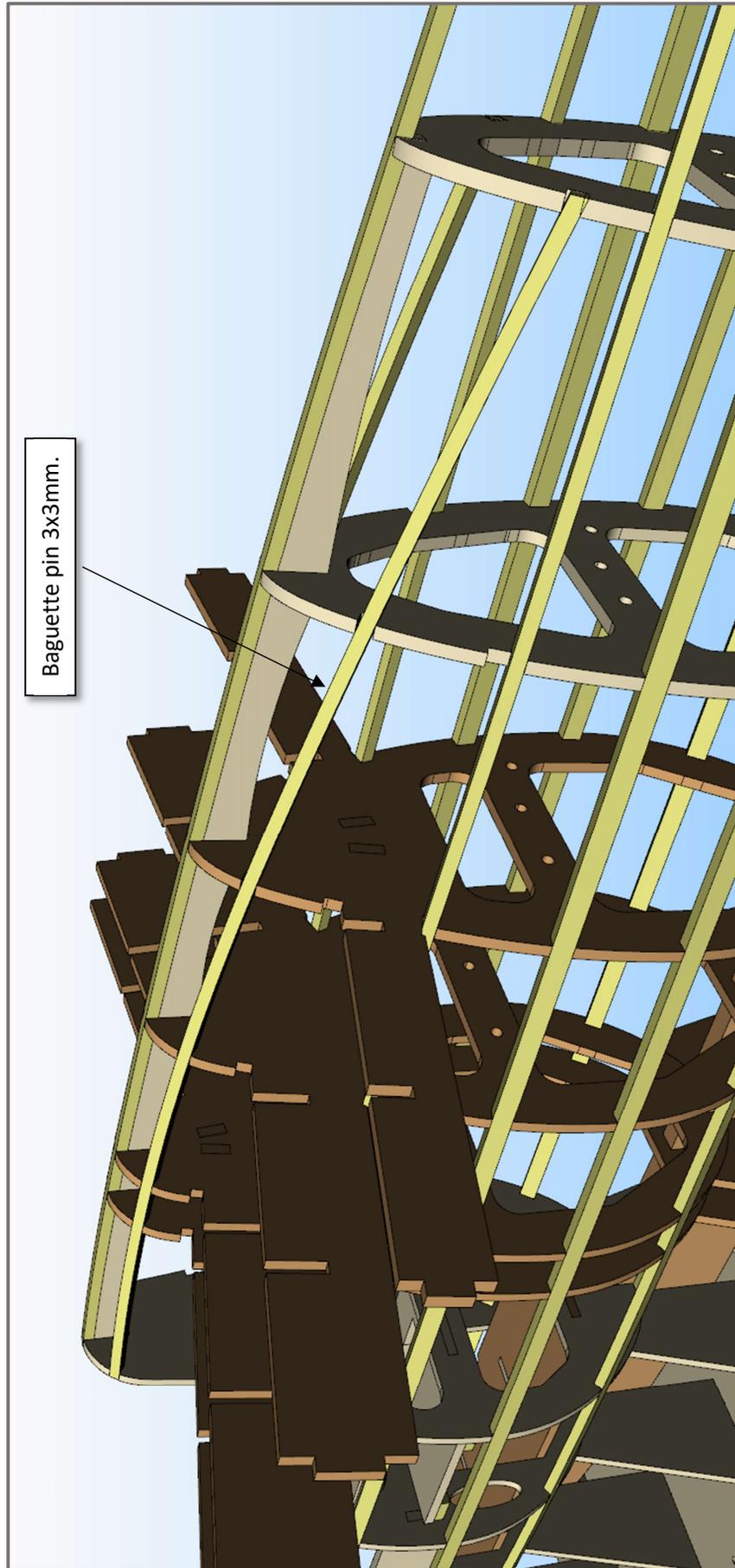
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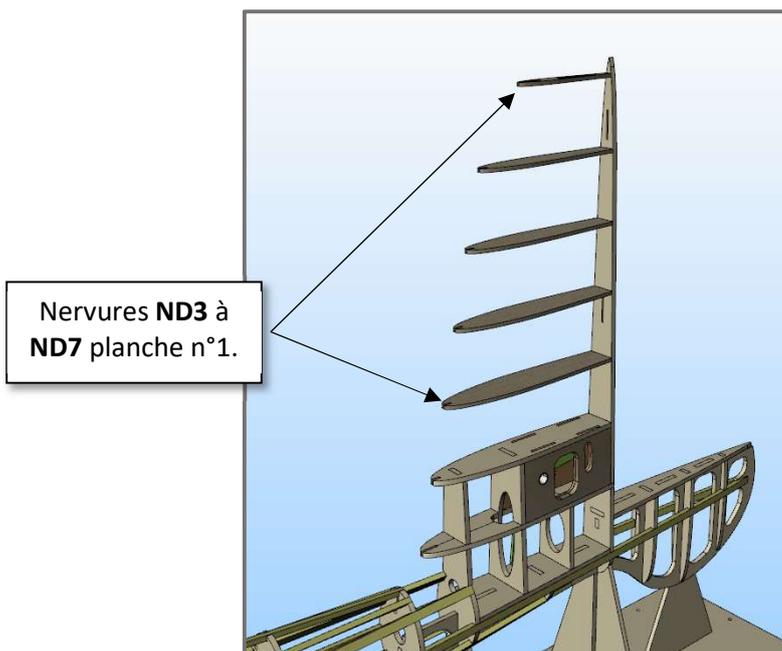
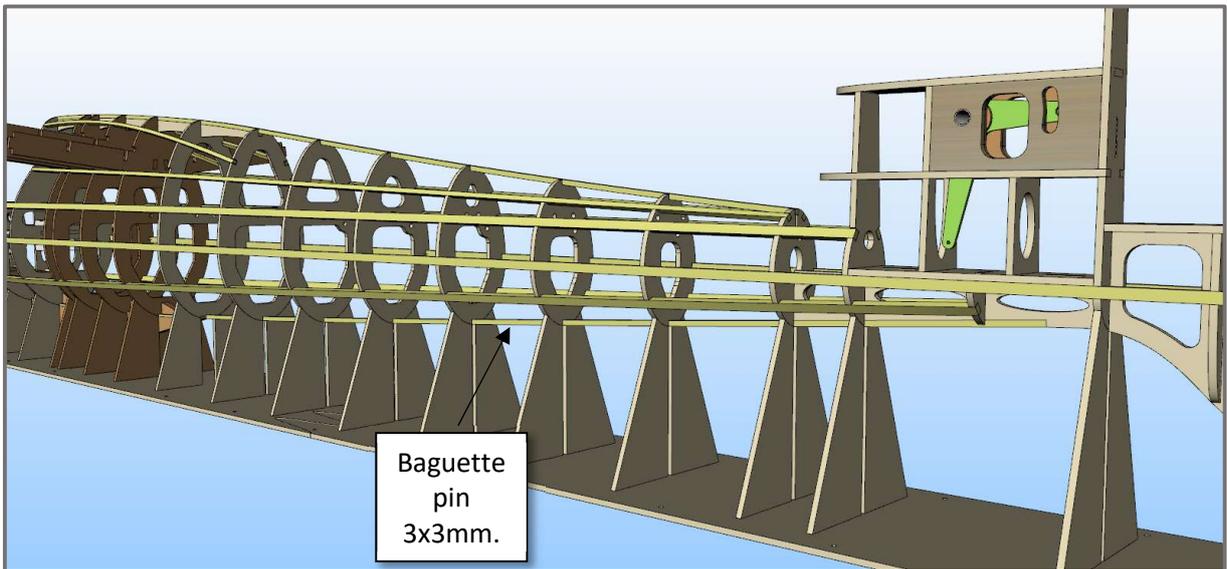
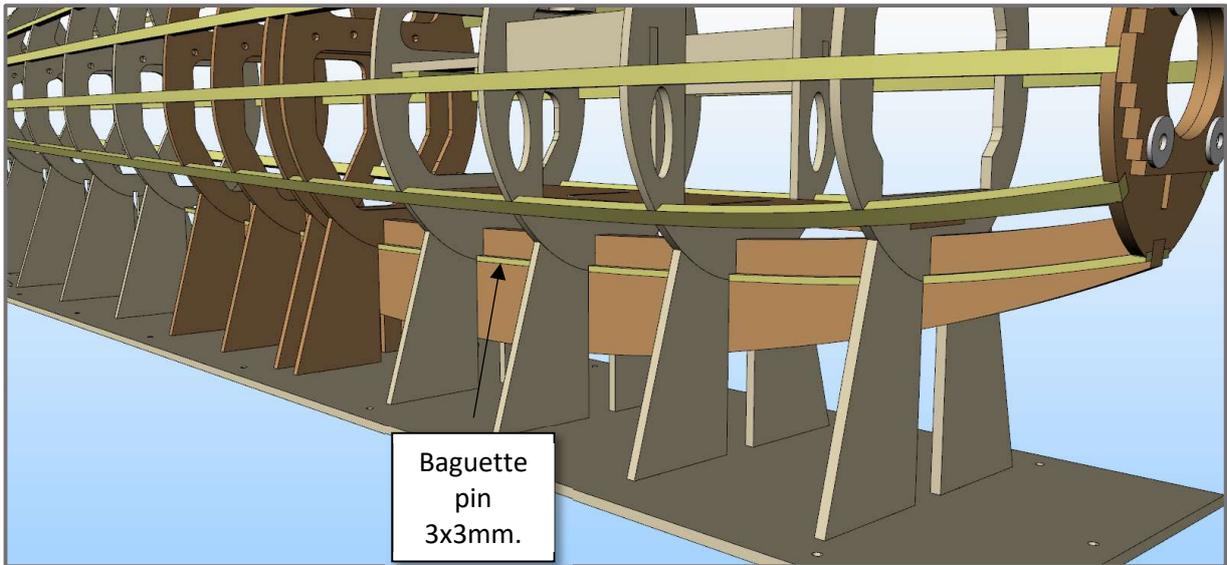
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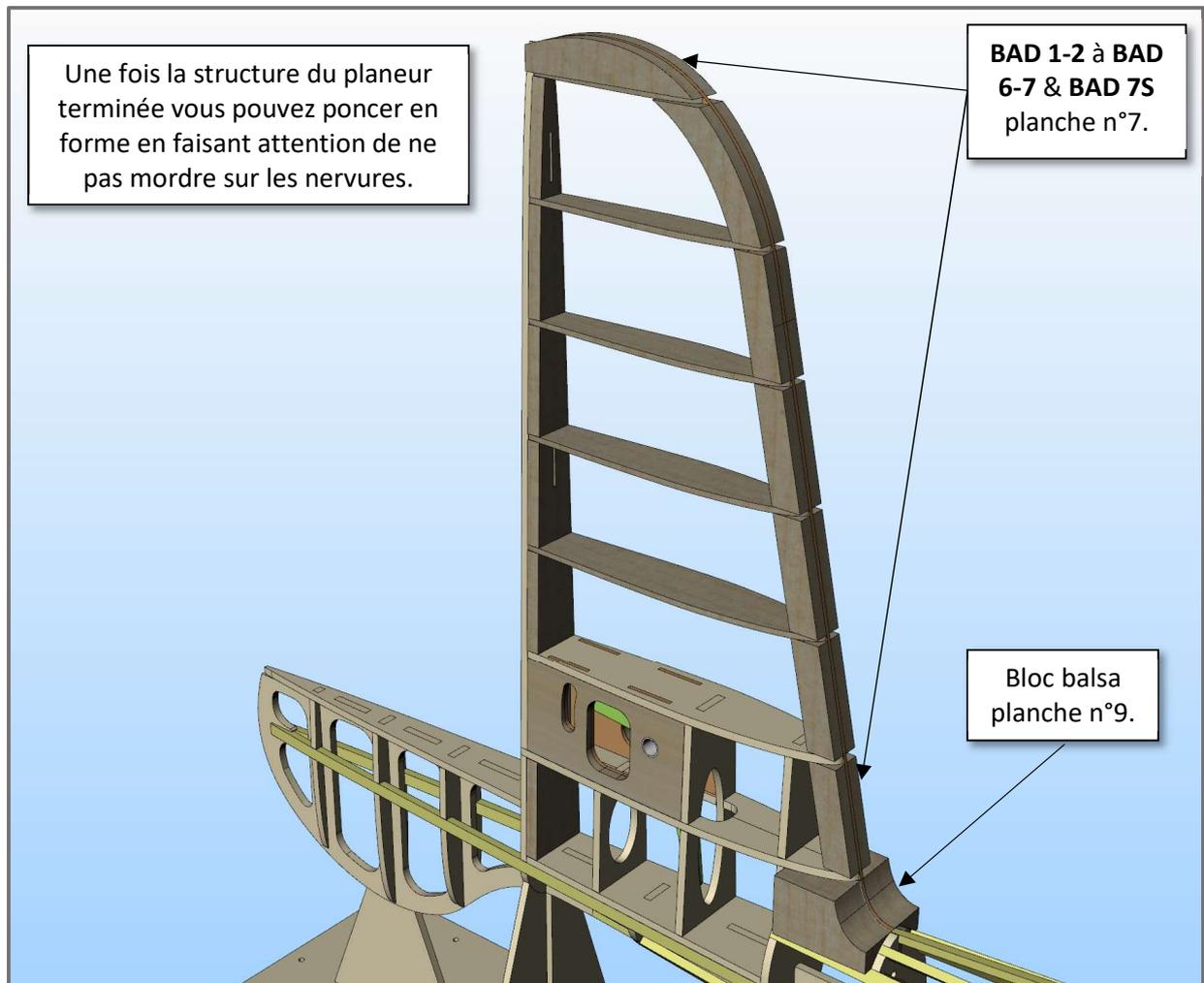
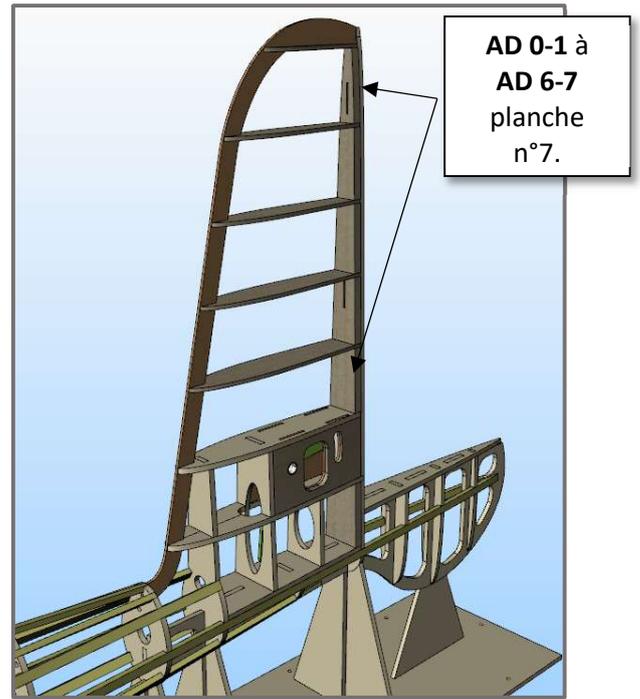
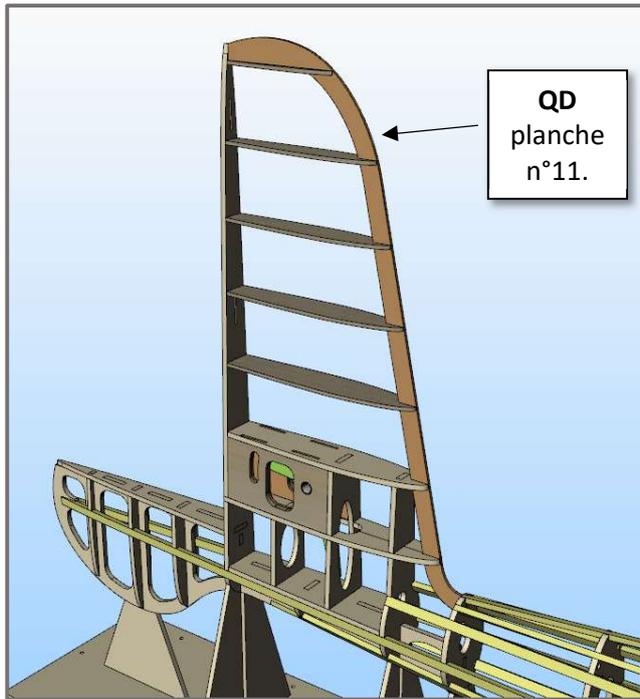
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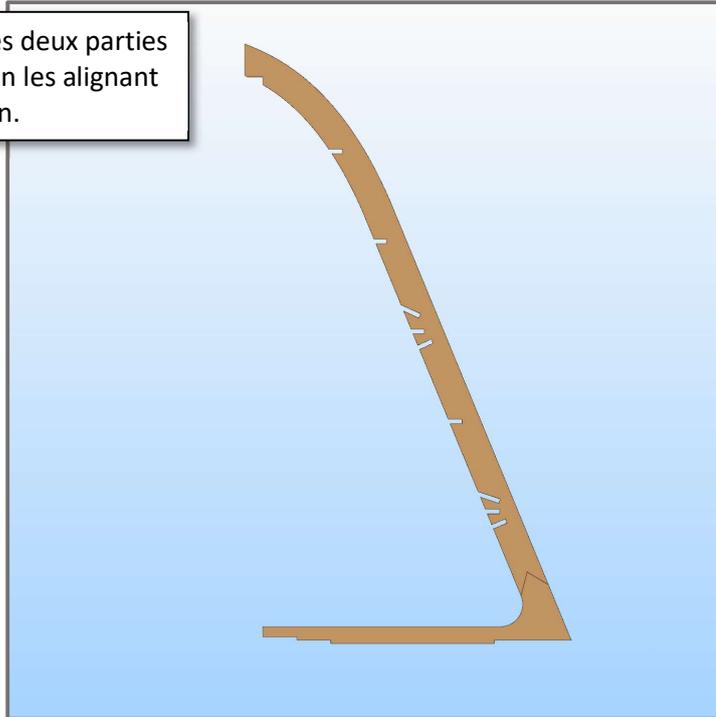


# Bannsperber



Dérive mobile

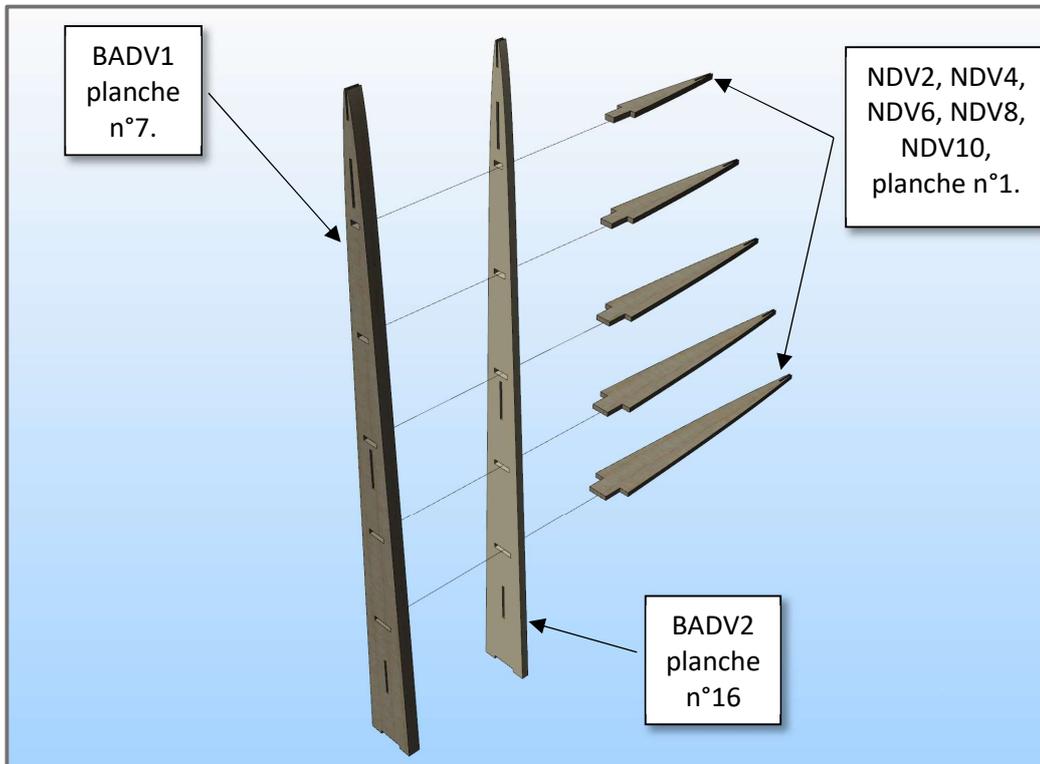
Assemblez et collez les deux parties **BFDV** planche n°10 en les alignant sur le plan.



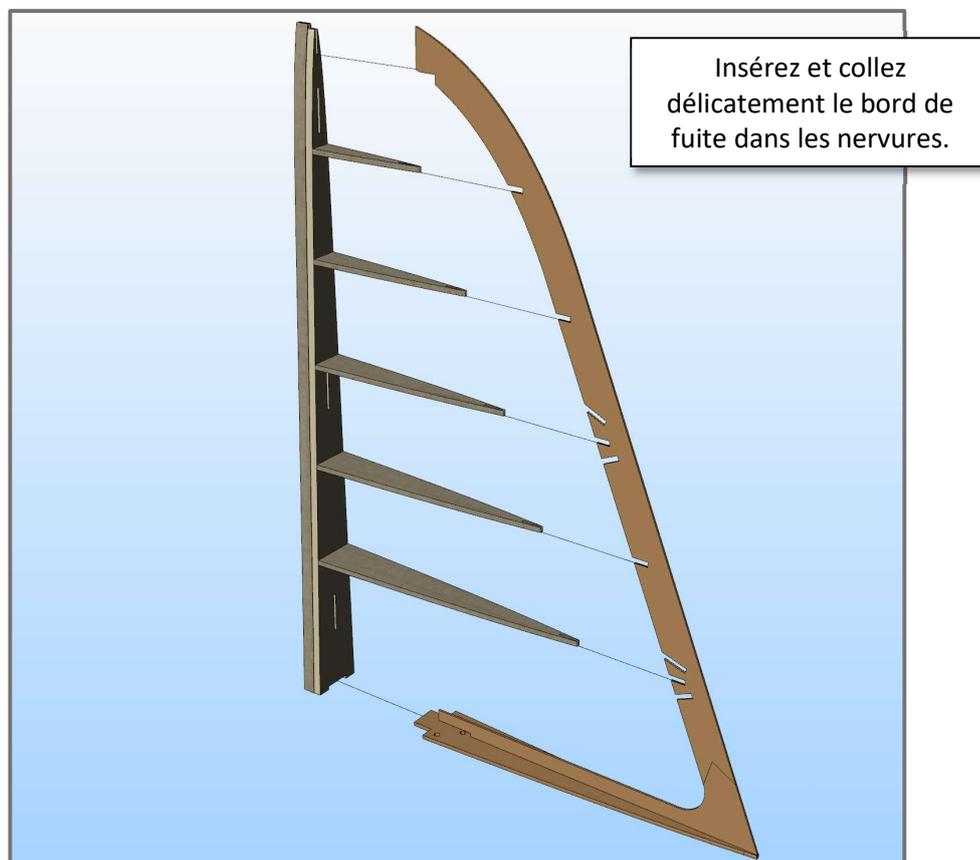
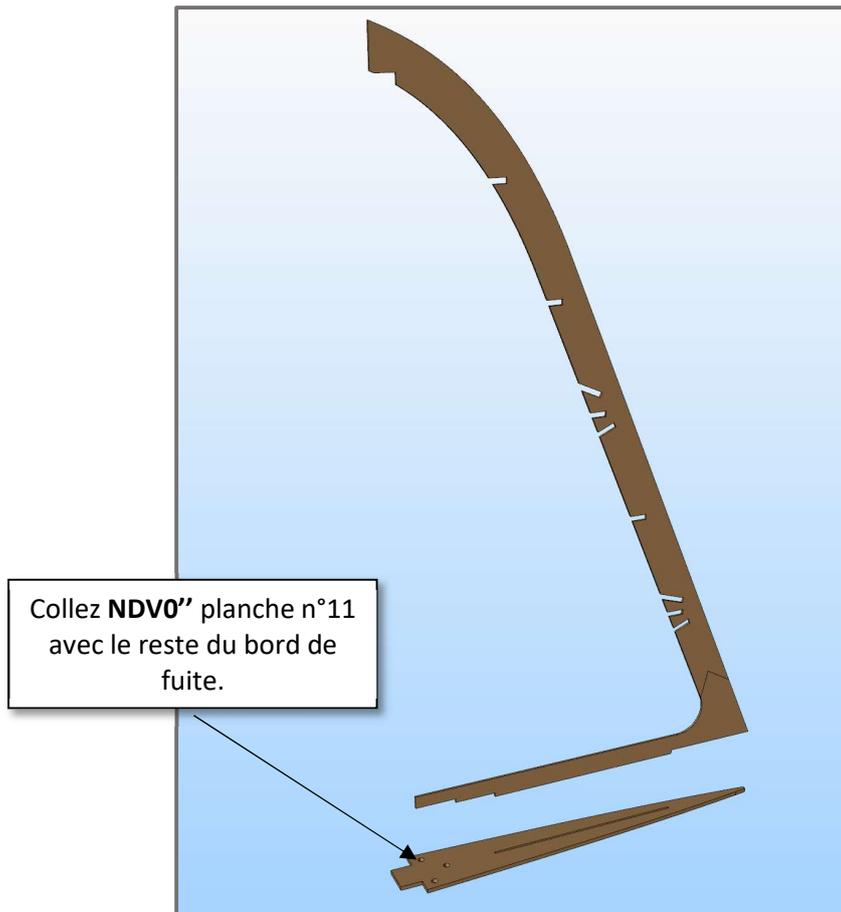
BADV1  
planche  
n°7.

NDV2, NDV4,  
NDV6, NDV8,  
NDV10,  
planche n°1.

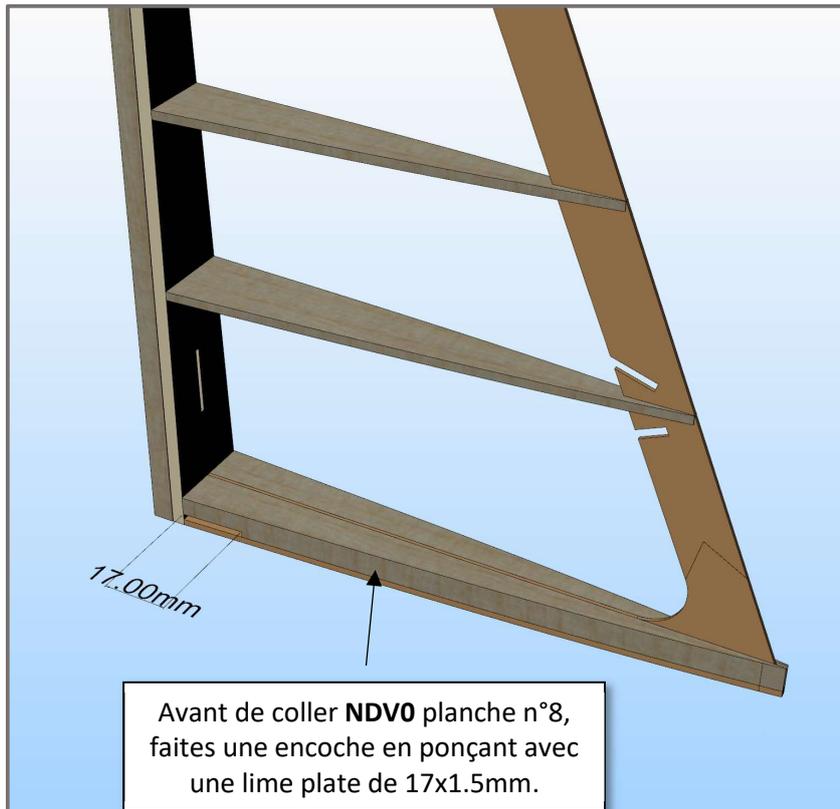
BADV2  
planche  
n°16



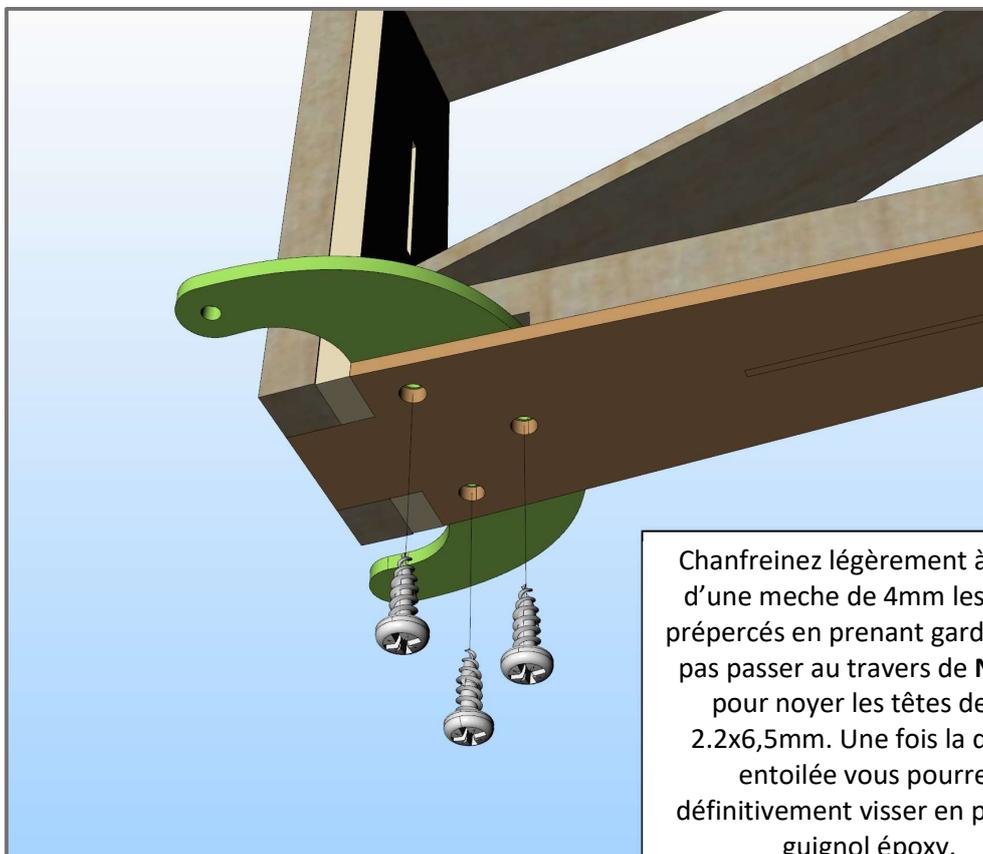
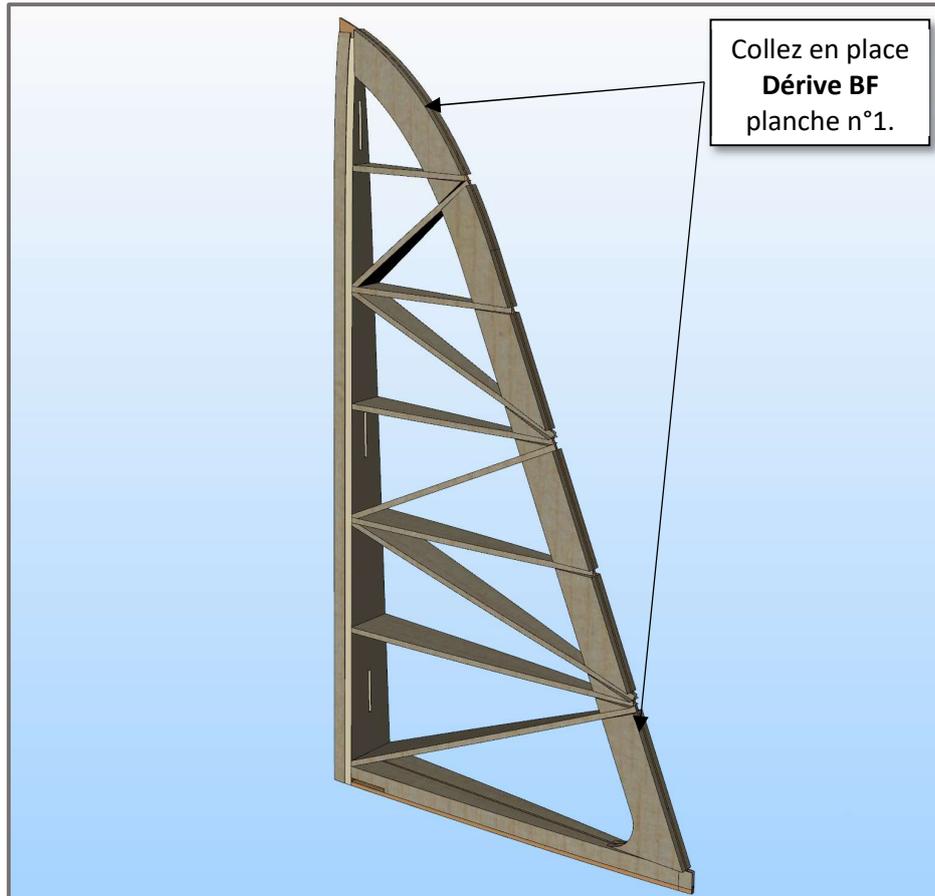
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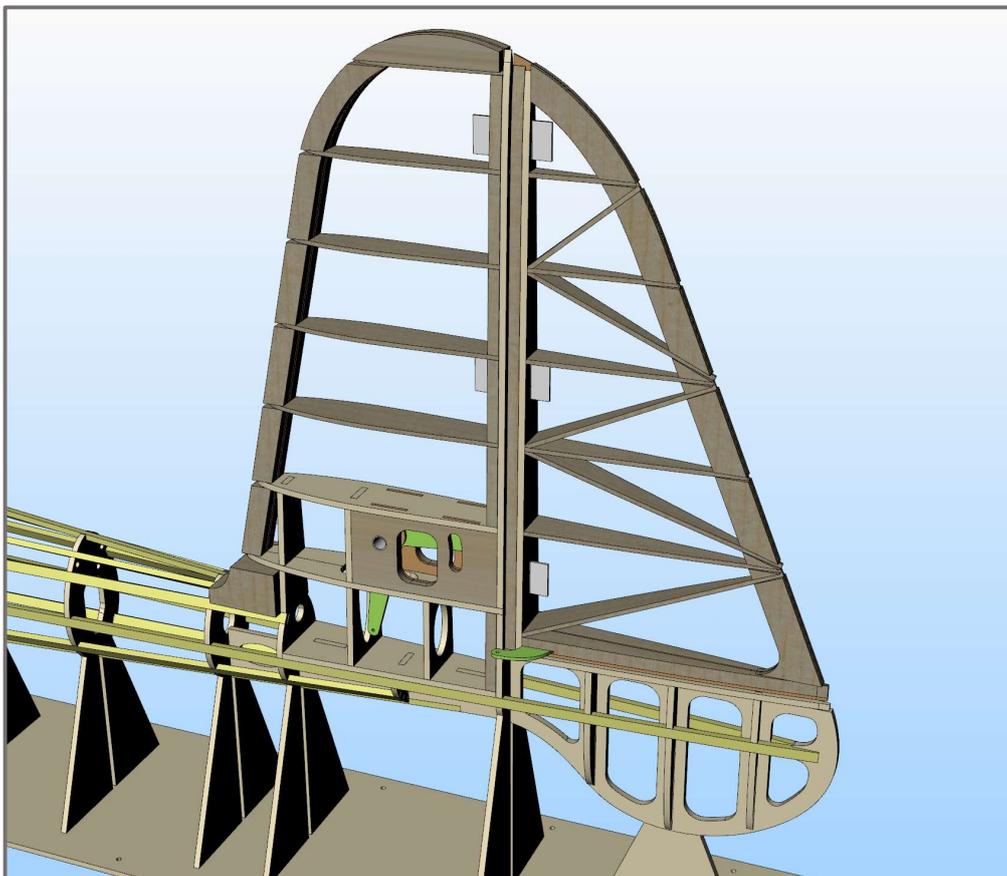
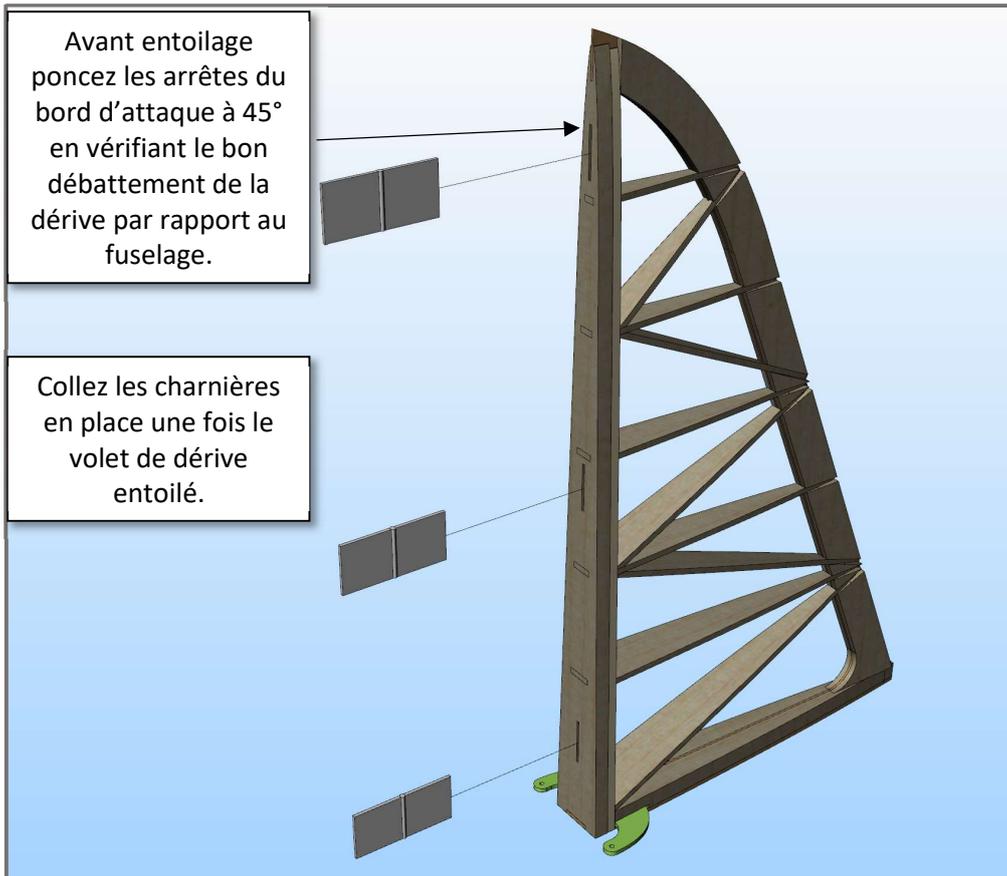
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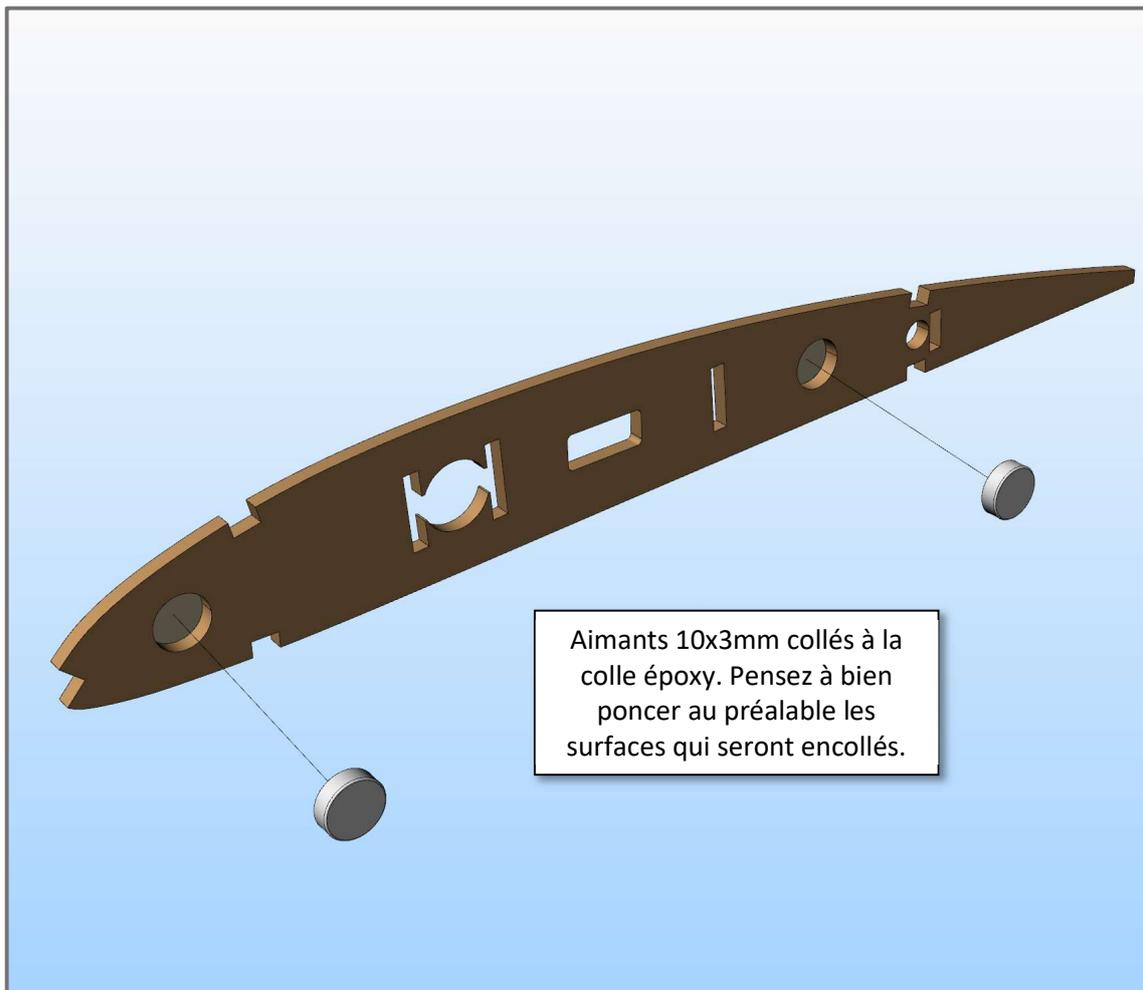
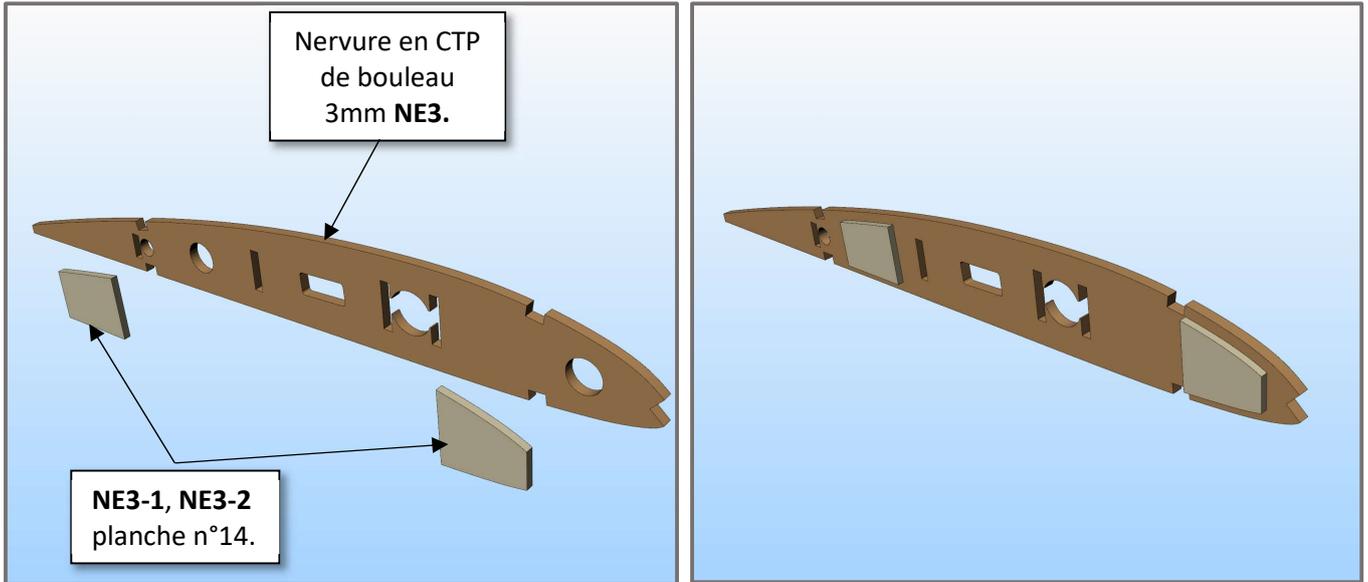
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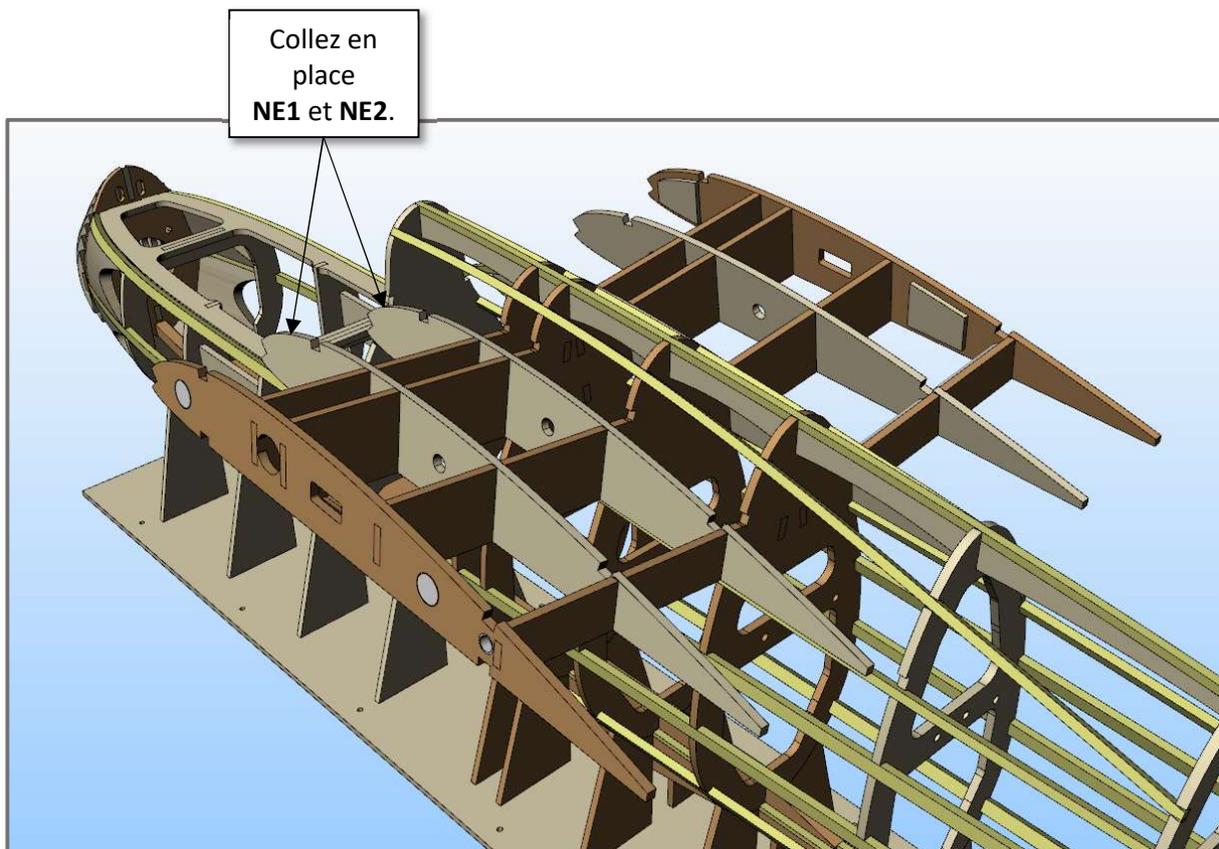
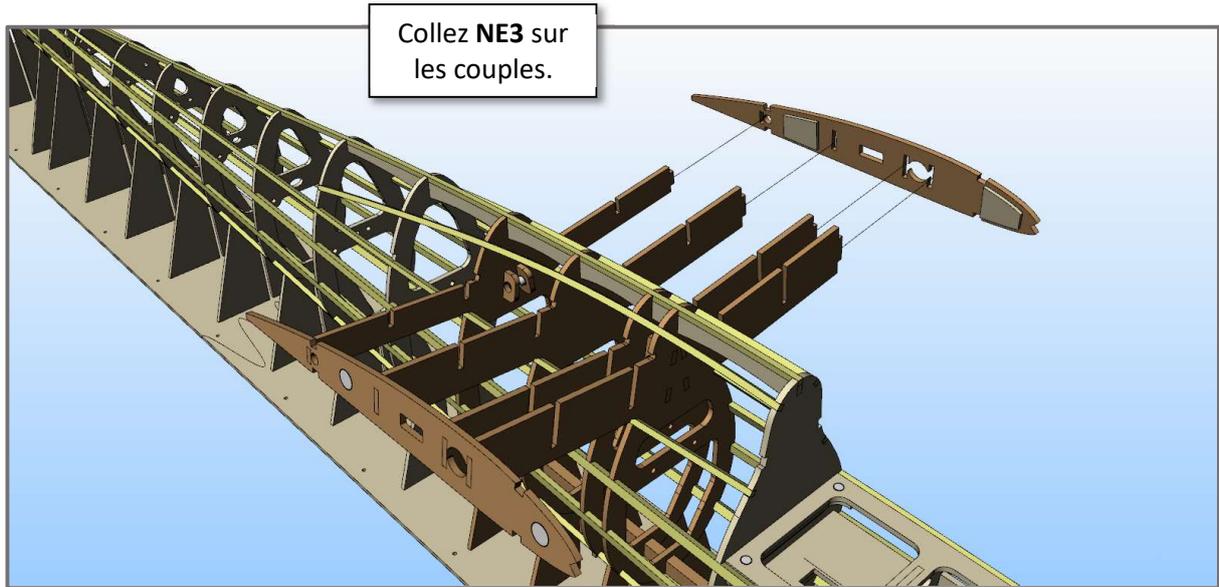
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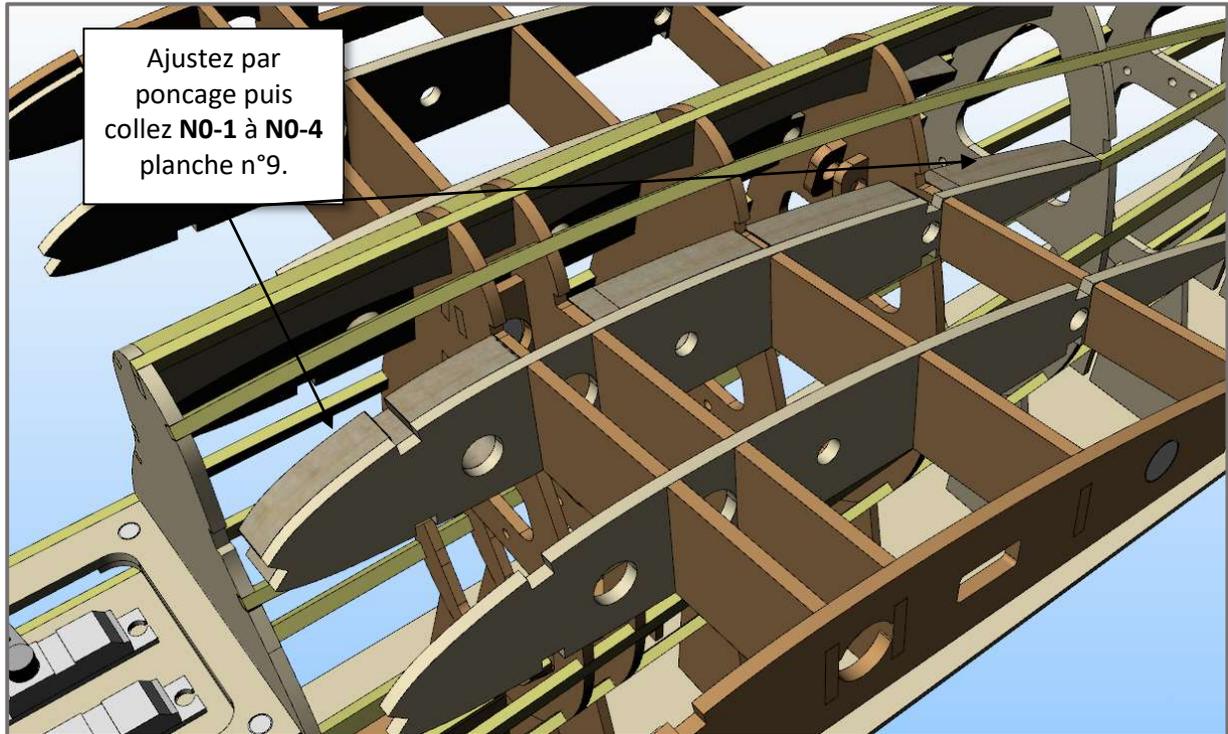
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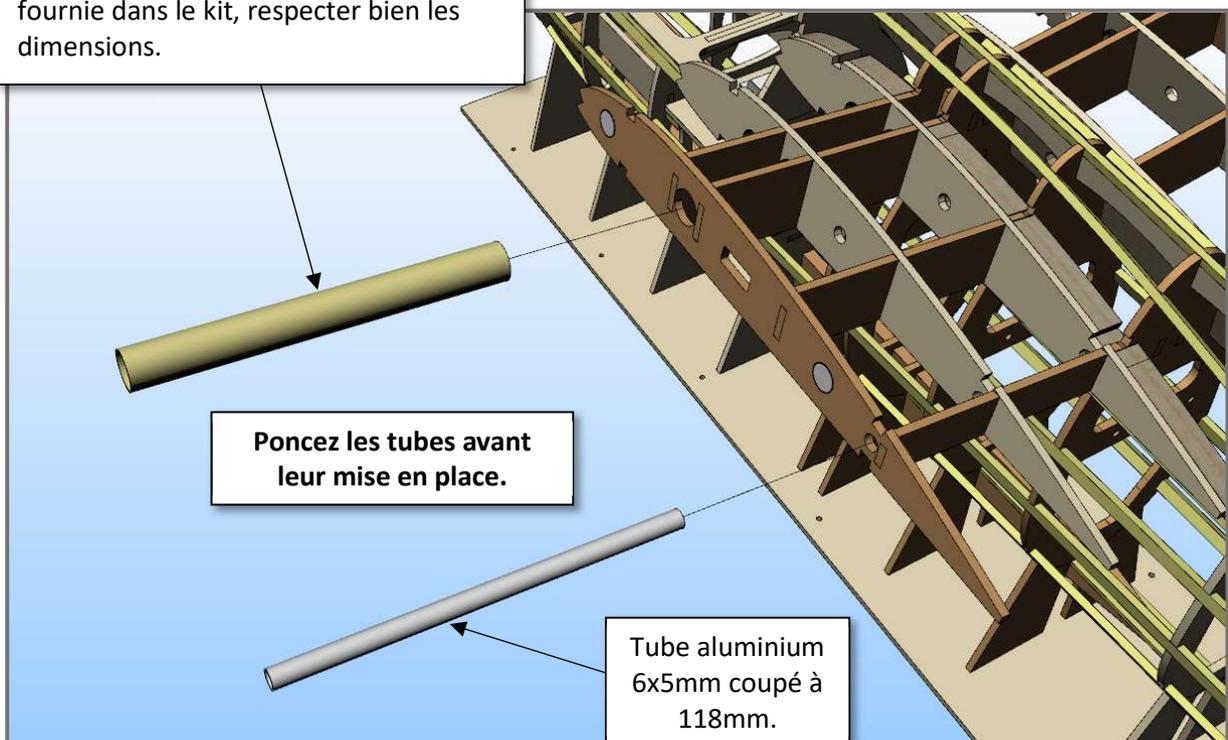


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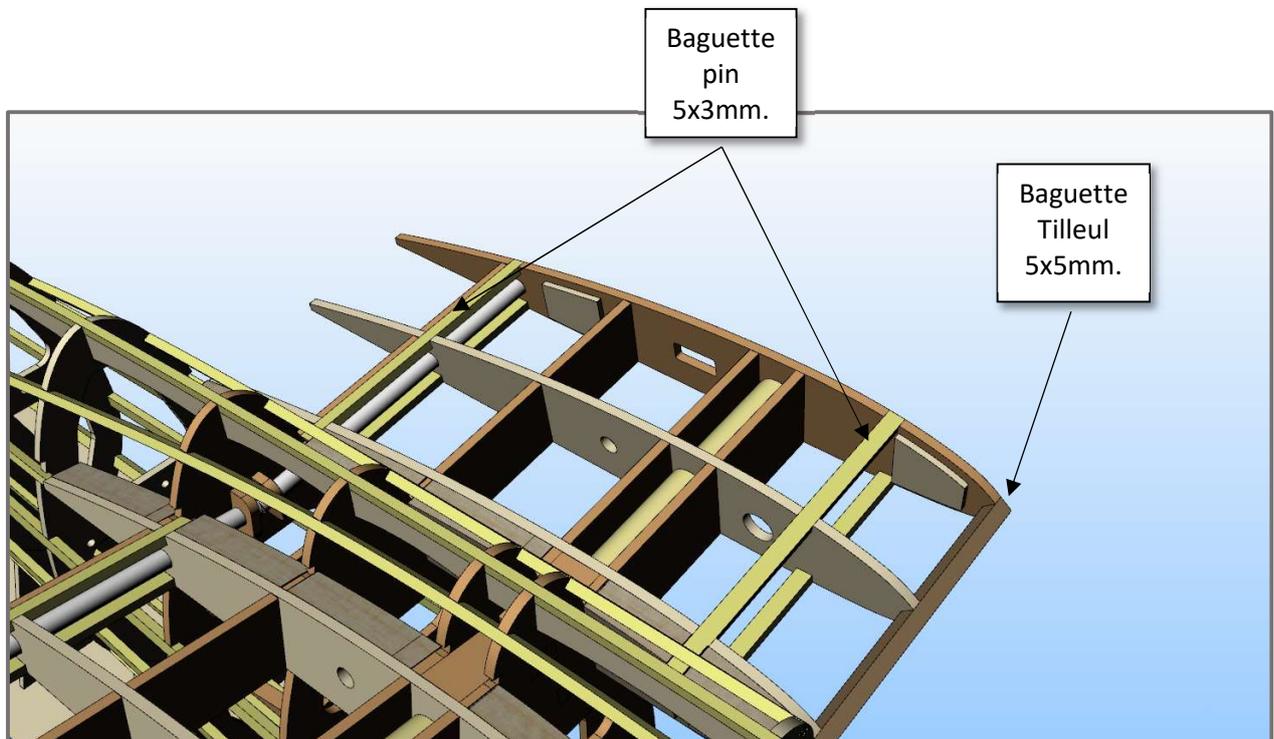
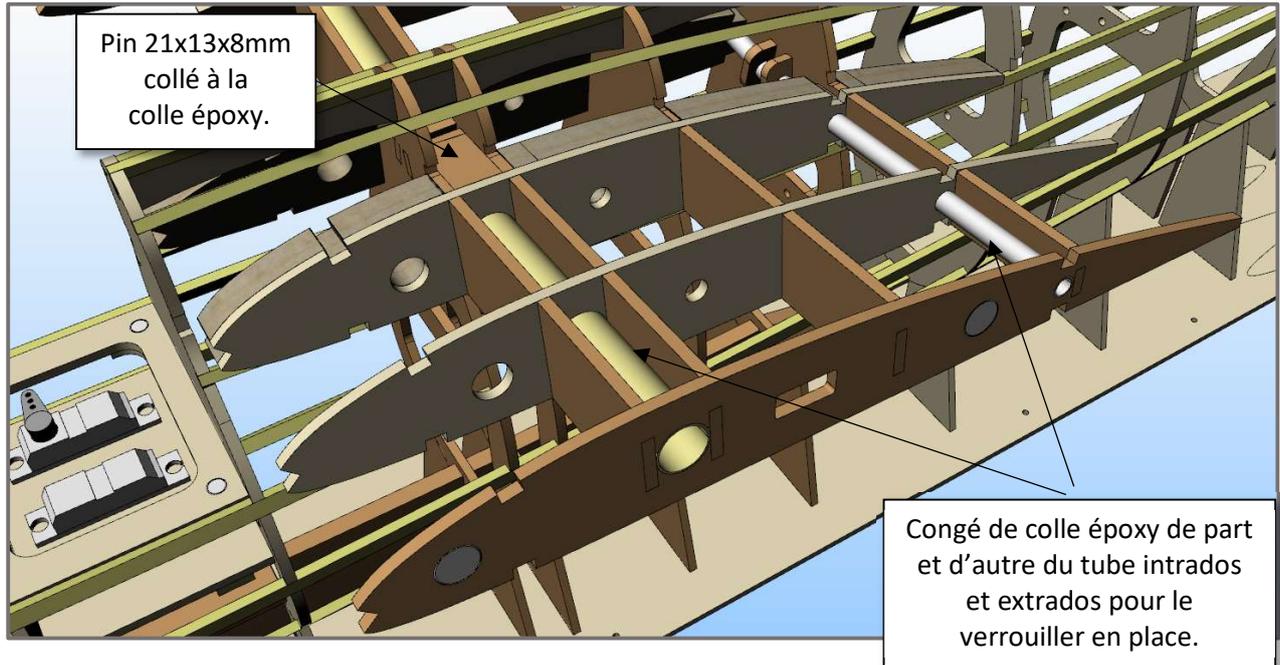


Tube aluminium 13x12mm faisant office de fourreau pour la clef d'aile coupé exactement à 118mm.

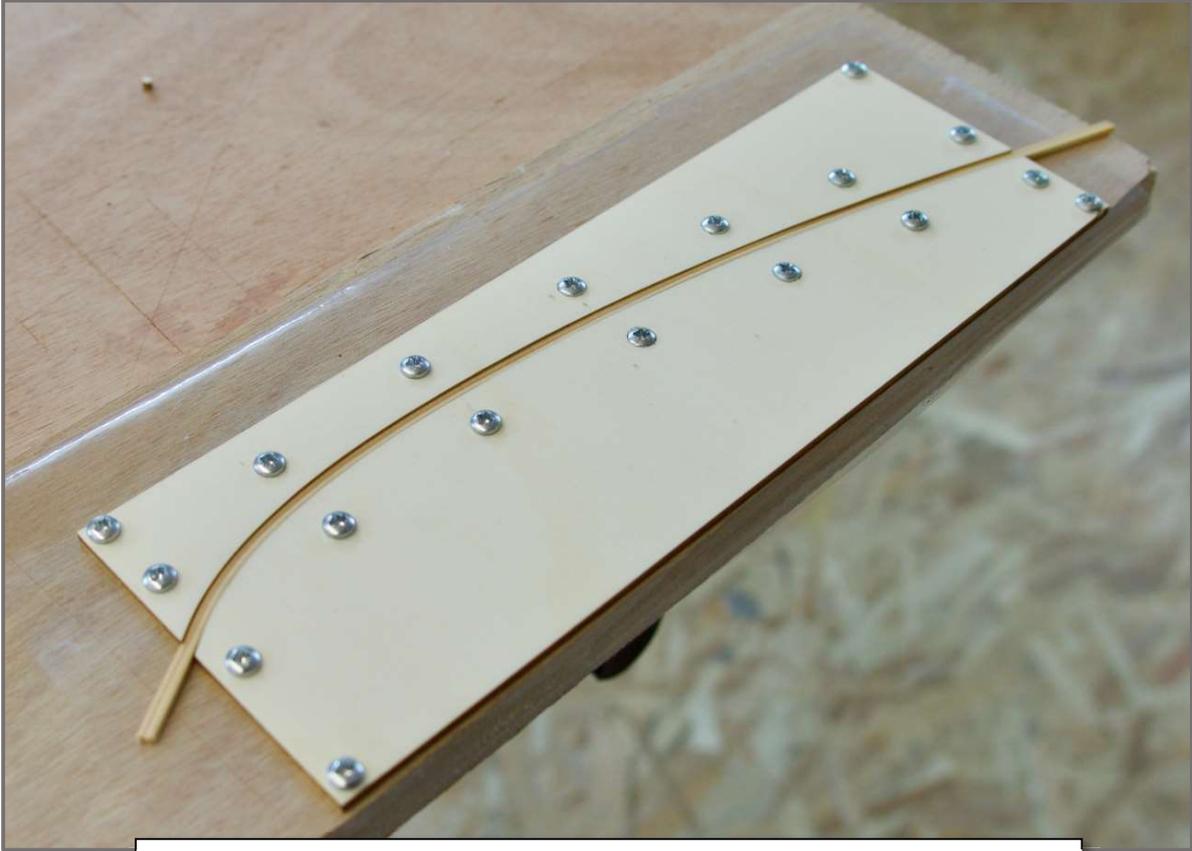
**Attention** il y a juste la longueur exacte fournie dans le kit, respecter bien les dimensions.



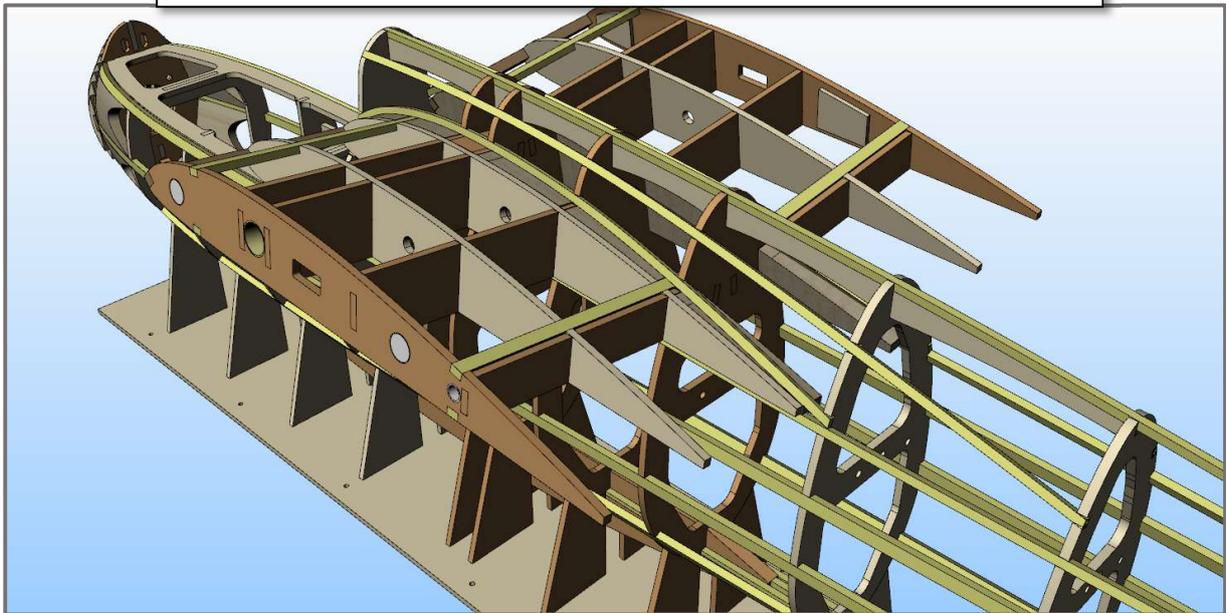
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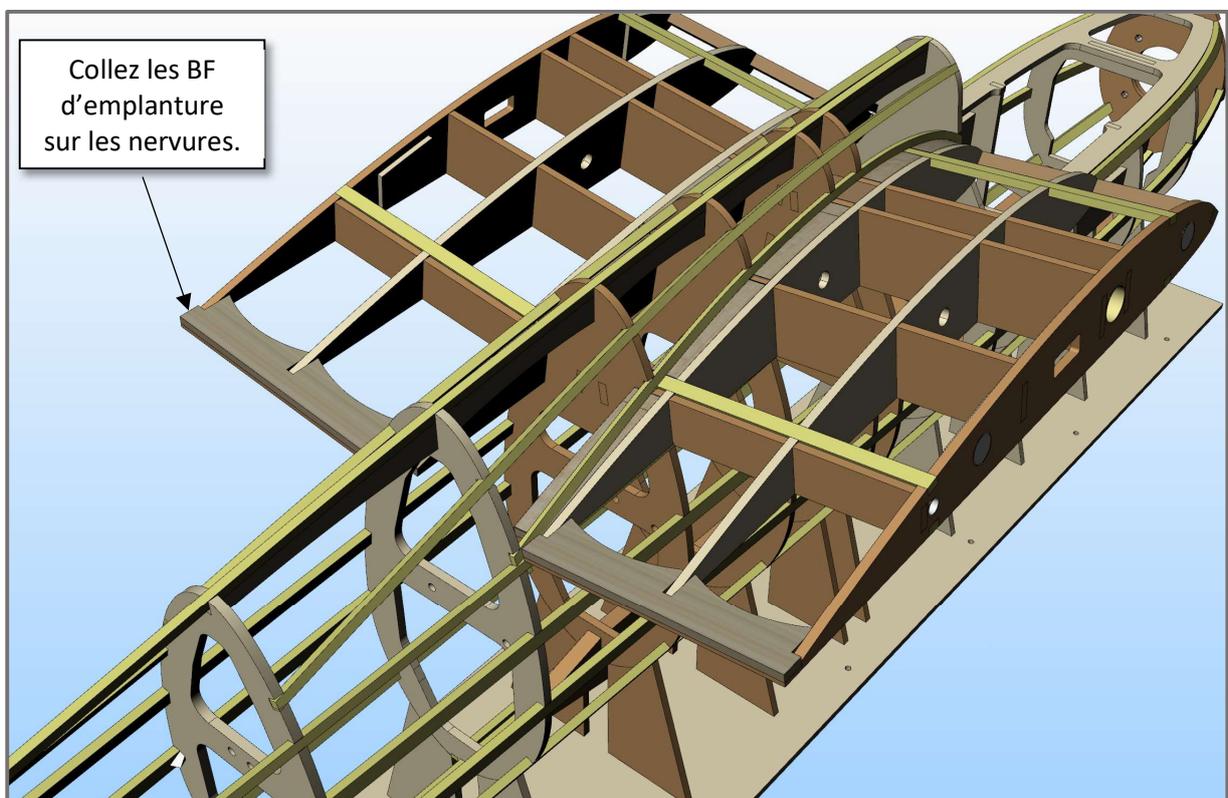
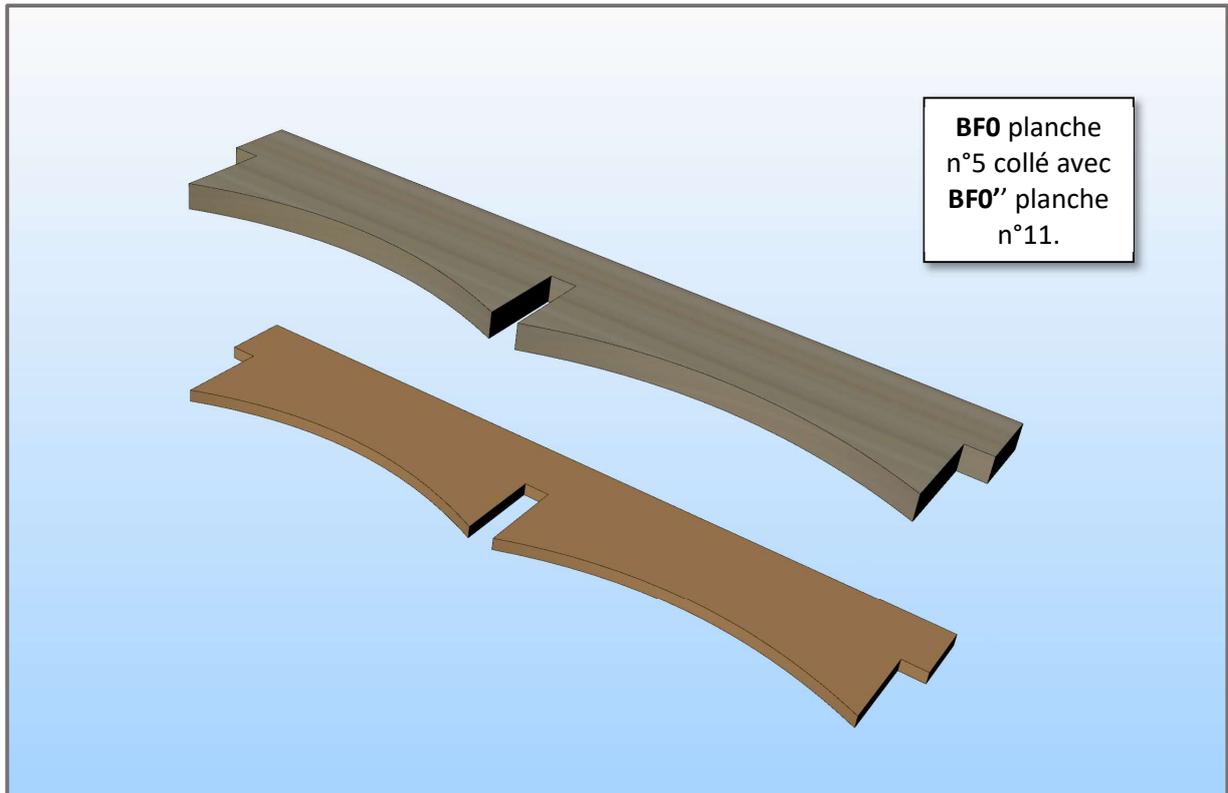
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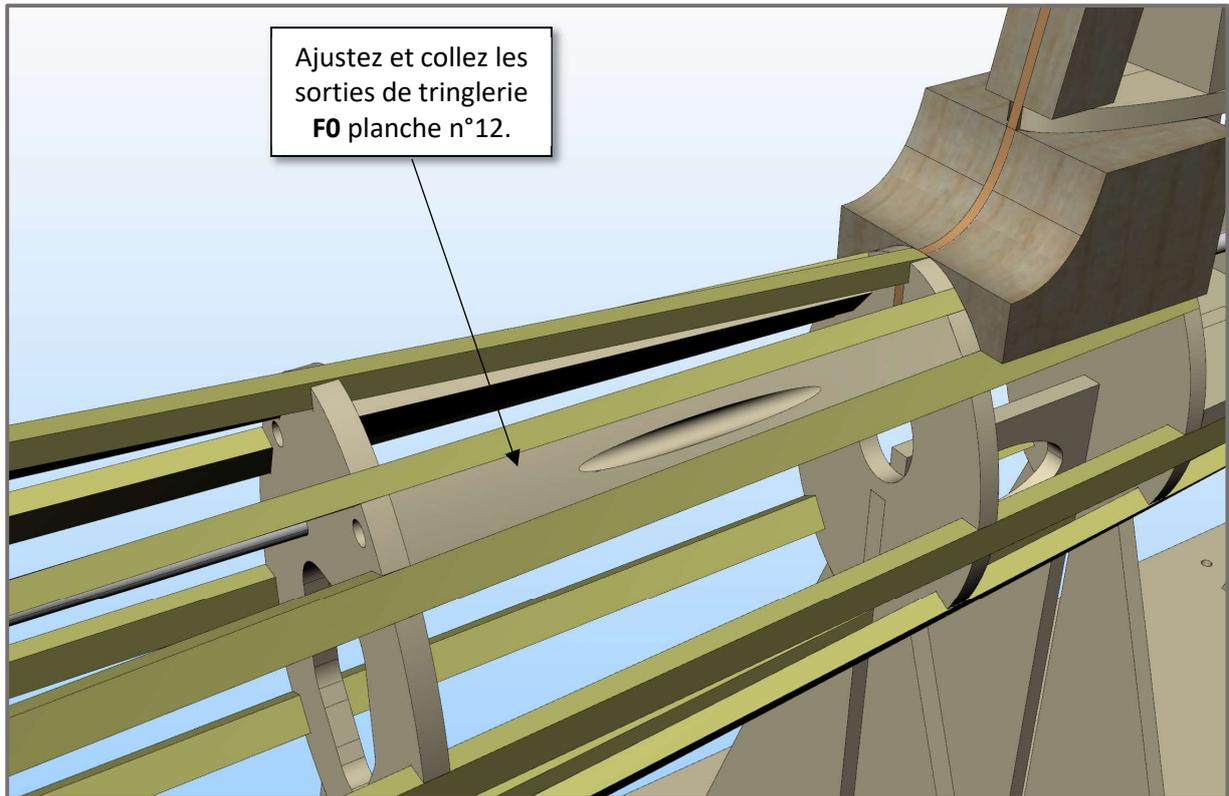
Faites tremper 30mn dans de l'eau chaude une baguette de pin 3x2mm.  
Visser en place la partie inférieure du gabarit planche n°14.  
Emprisonnez la baguette 3x2mm en la serrant bien contre les parois.  
Laissez sécher 12H.  
Une fois sec repérez son début et sa fin à l'aide d'un crayon puis ajustez et collez la en place sur le fuselage.



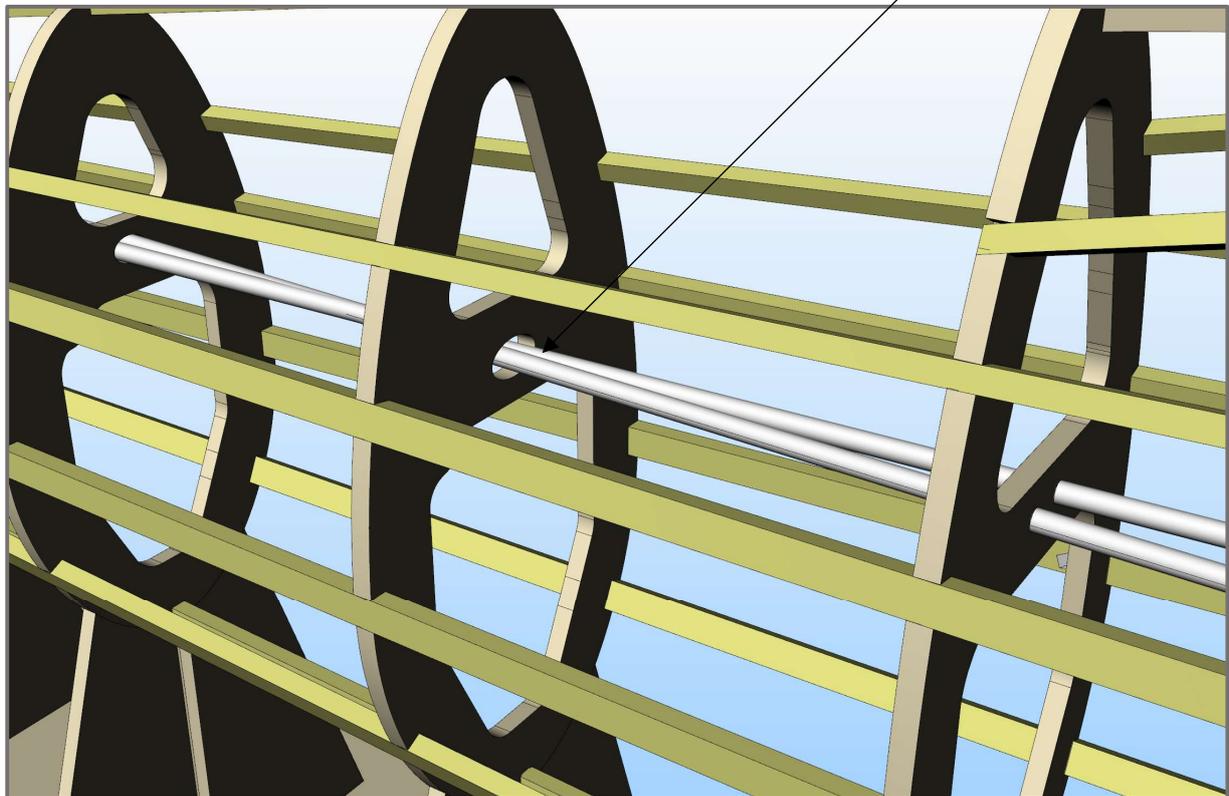
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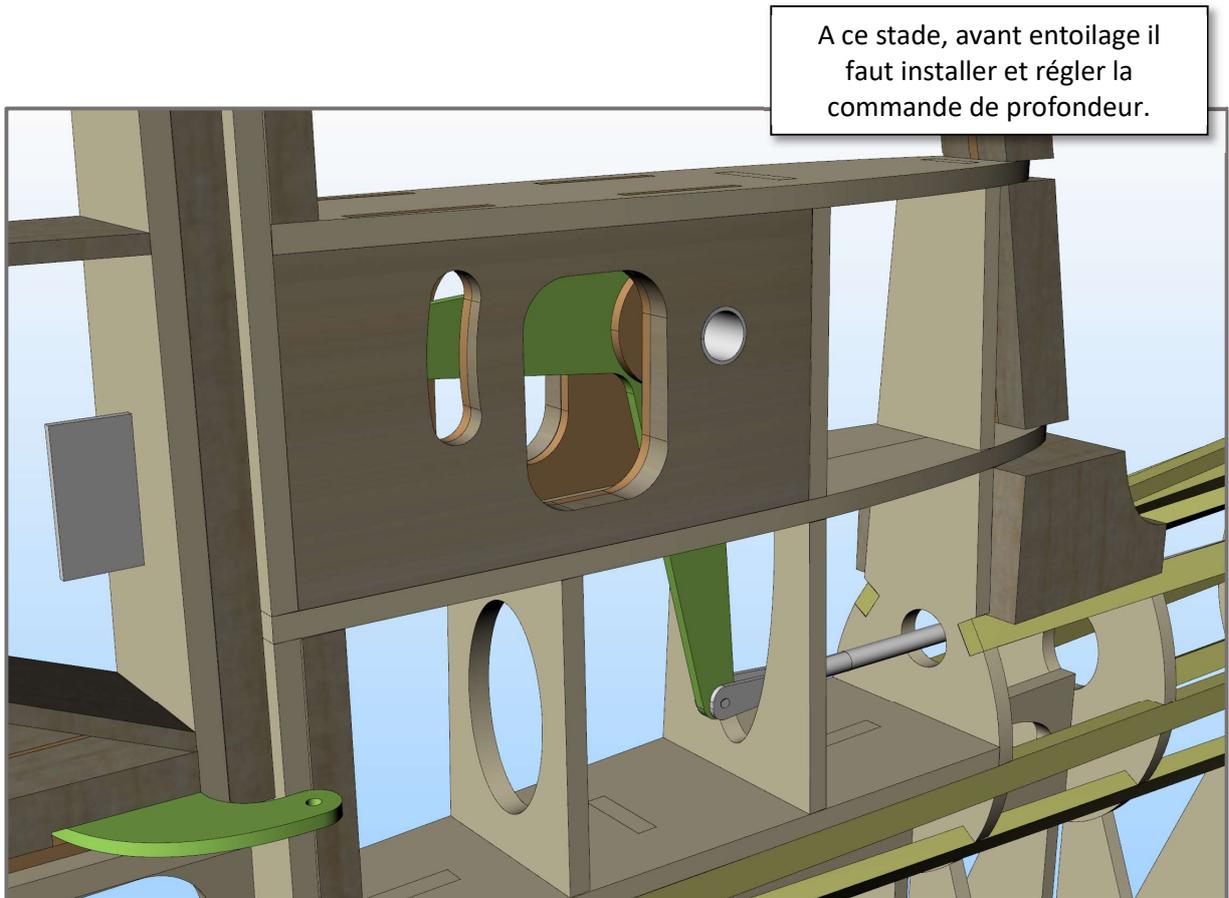
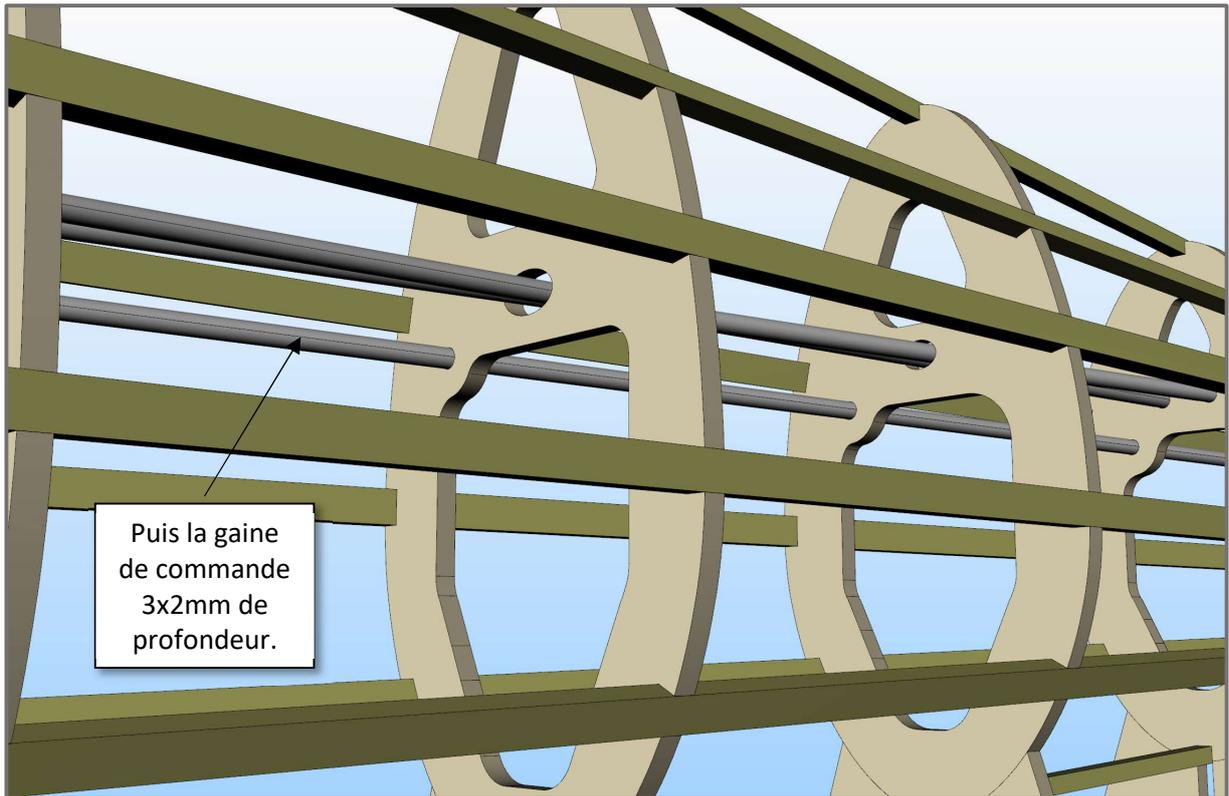
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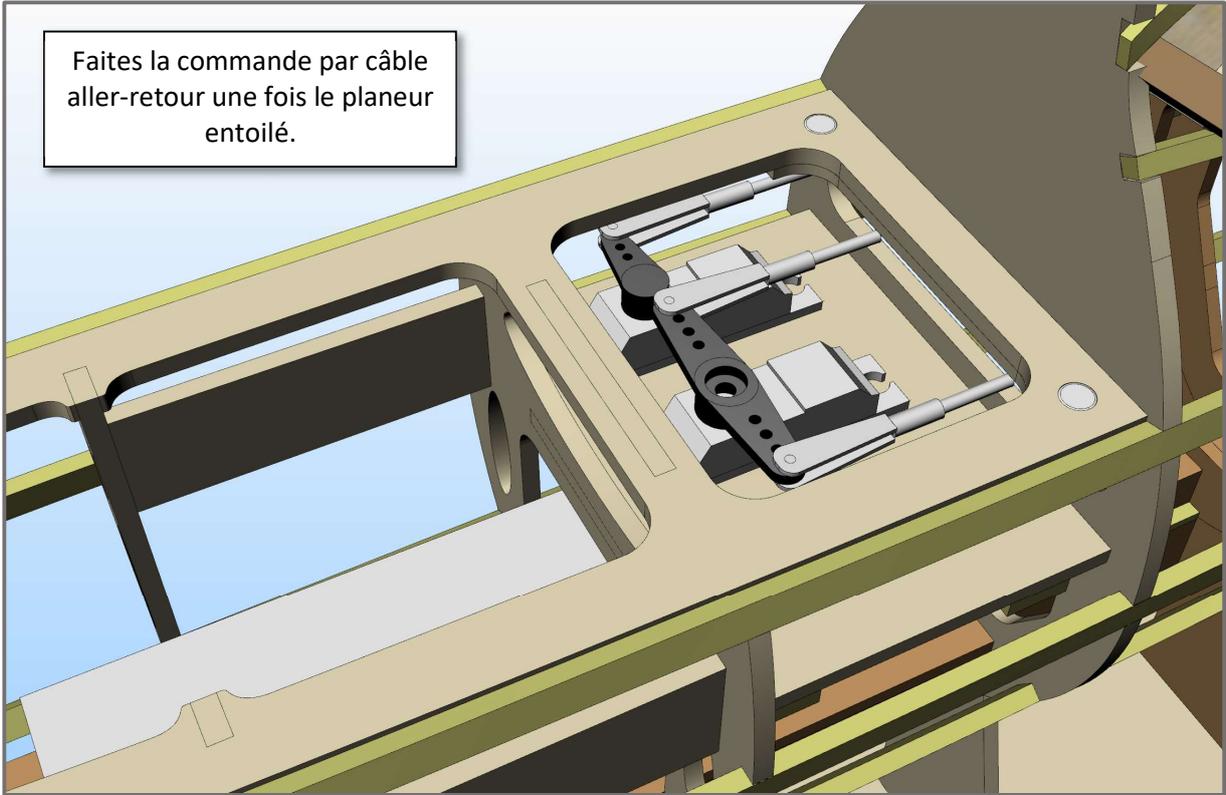
Posez et collez en place les gaines de commande 3x2mm pour la dérive, elles se croisent au couple **C12**.



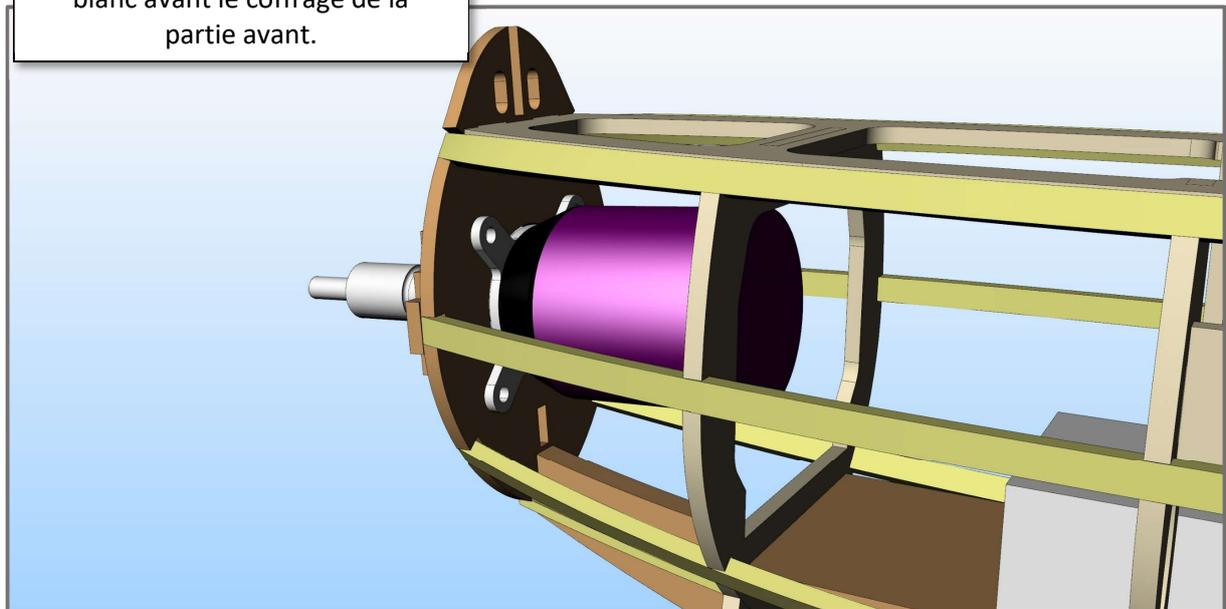
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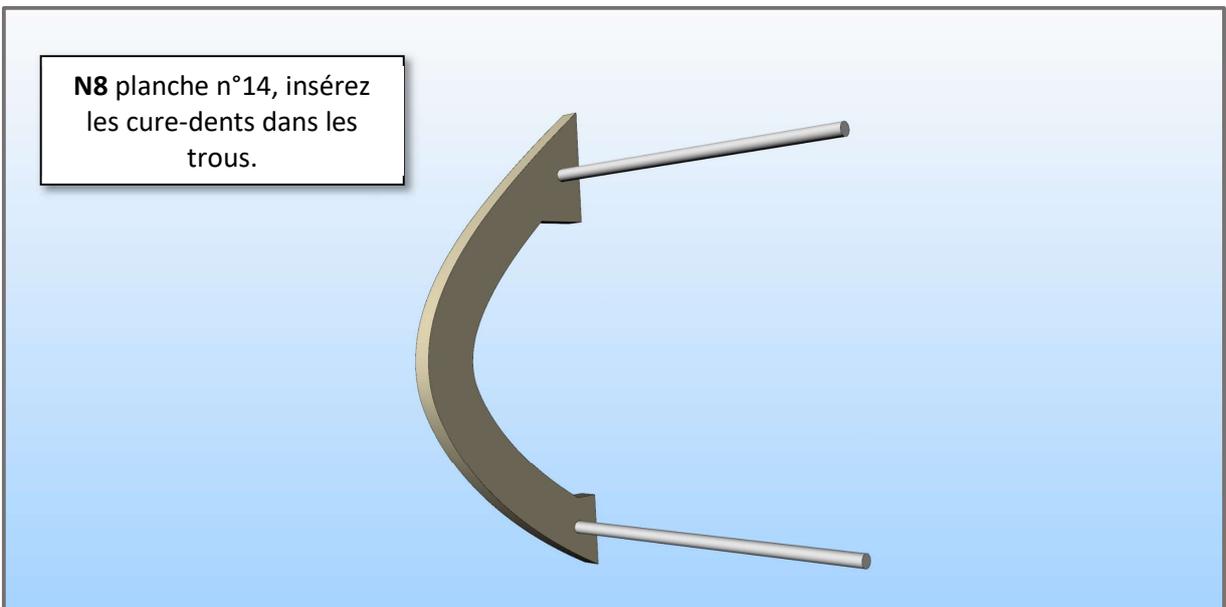
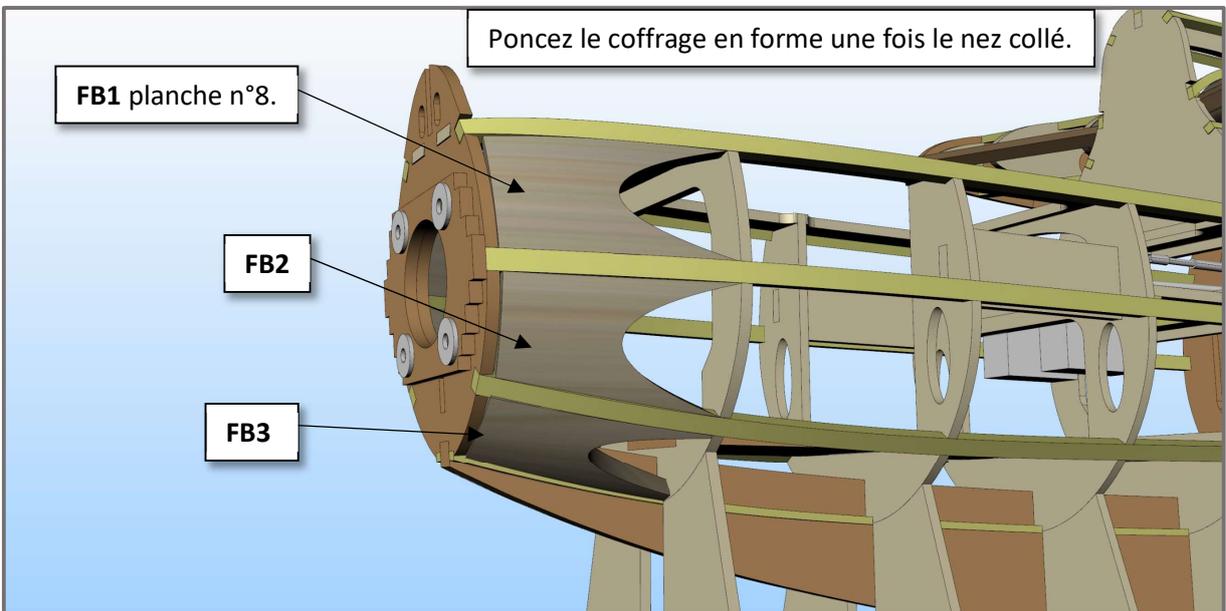
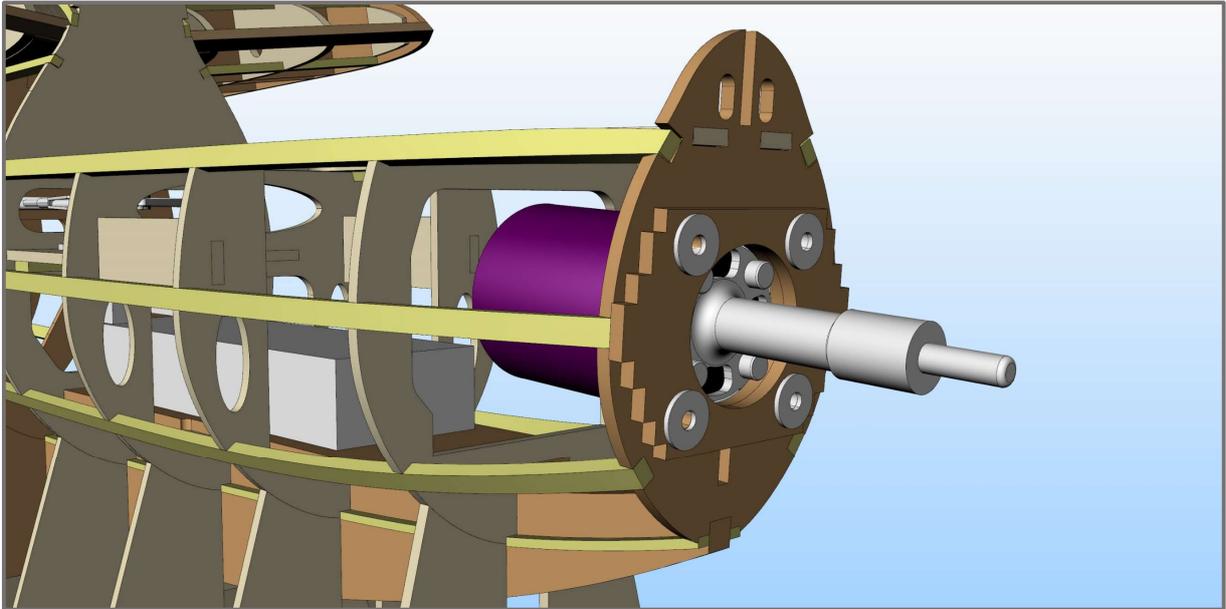
Faites la commande par câble aller-retour une fois le planeur entoilé.



Pour les utilisateurs qui souhaitent équiper leur planeur d'un moteur, faites un montage à blanc avant le coffrage de la partie avant.

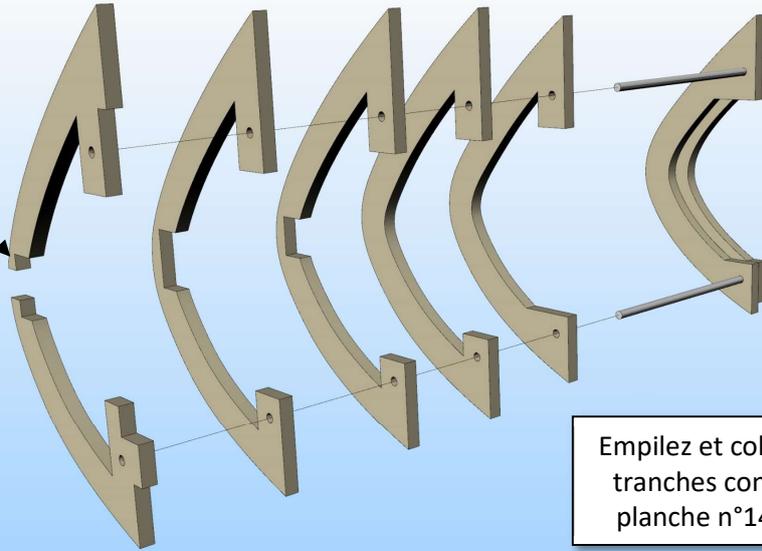


# Bannspërber

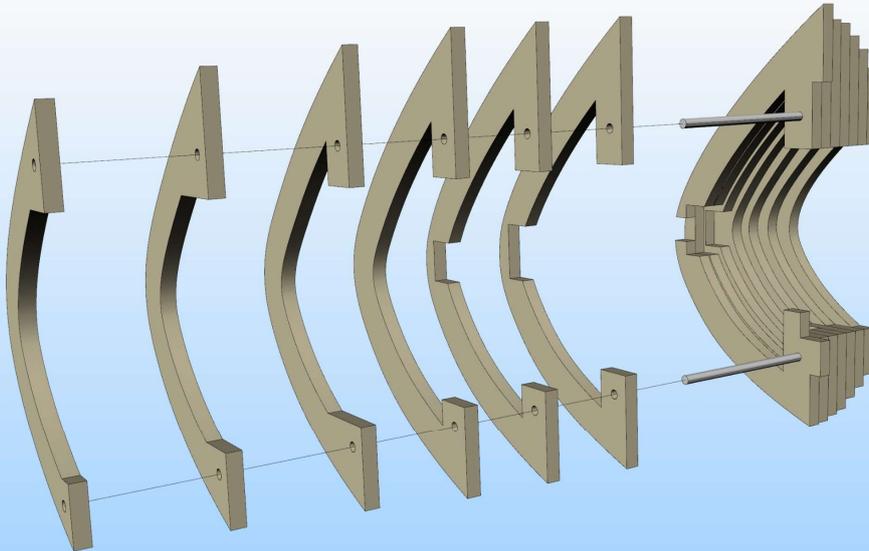


# Bannsperber

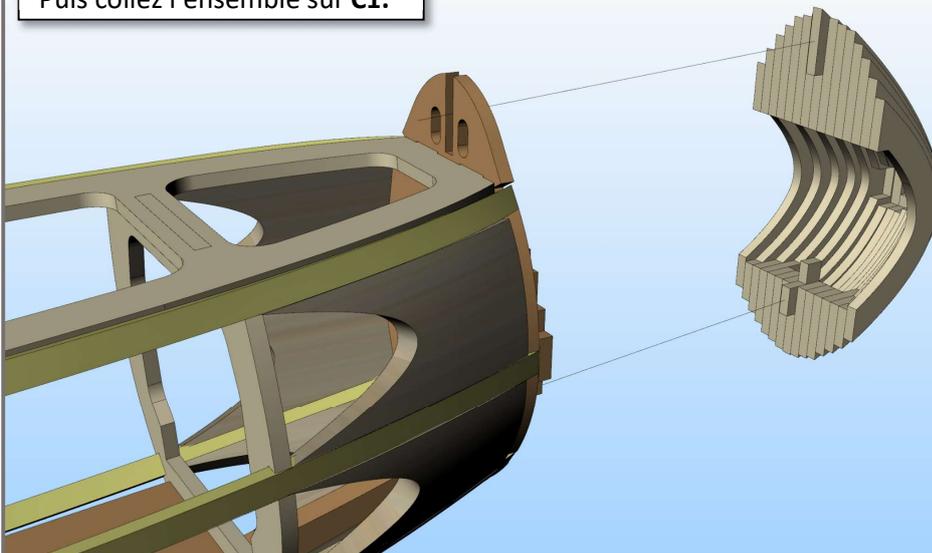
Pour ceux qui souhaitent installer un moteur, faites une entaille dans N0 au centre correspondant au diamètre de l'axe du moteur + 2mm.



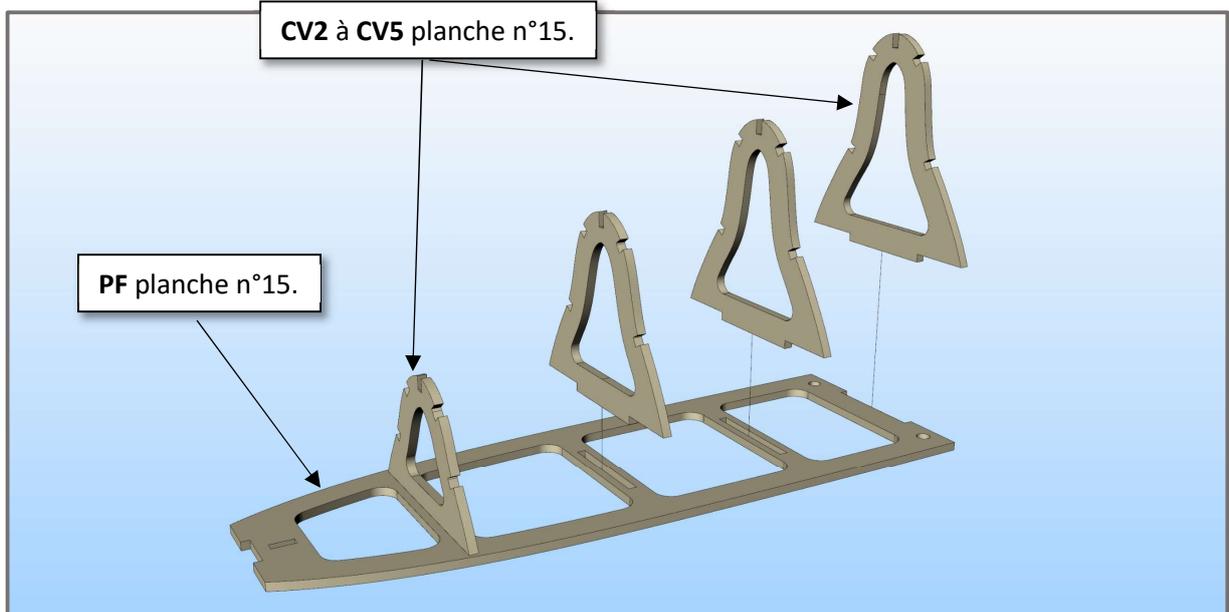
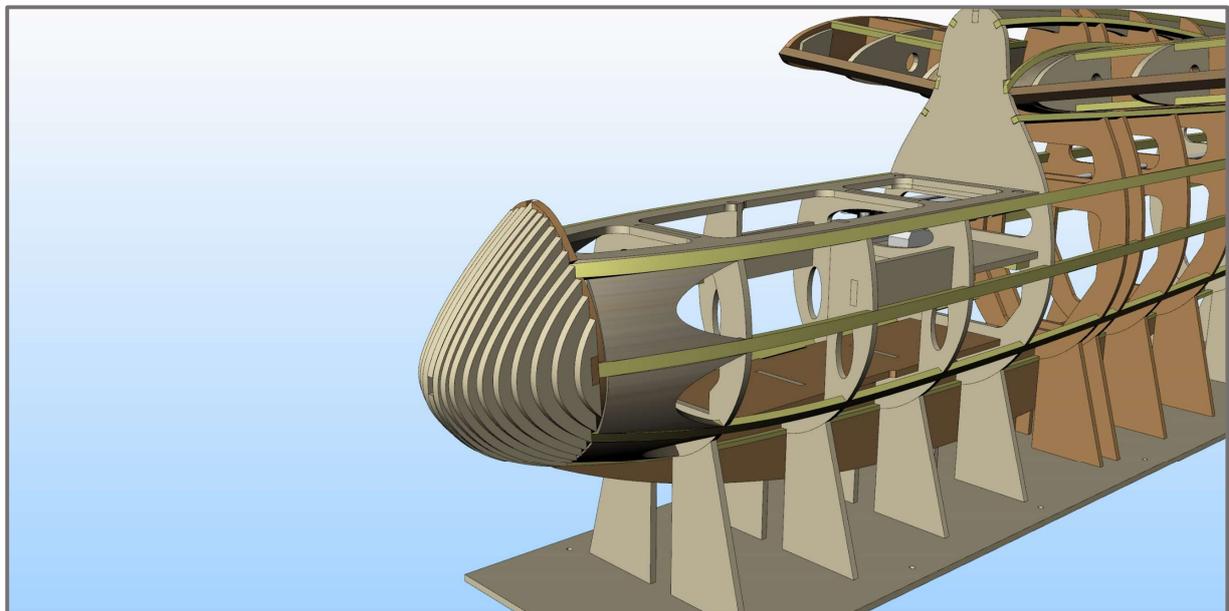
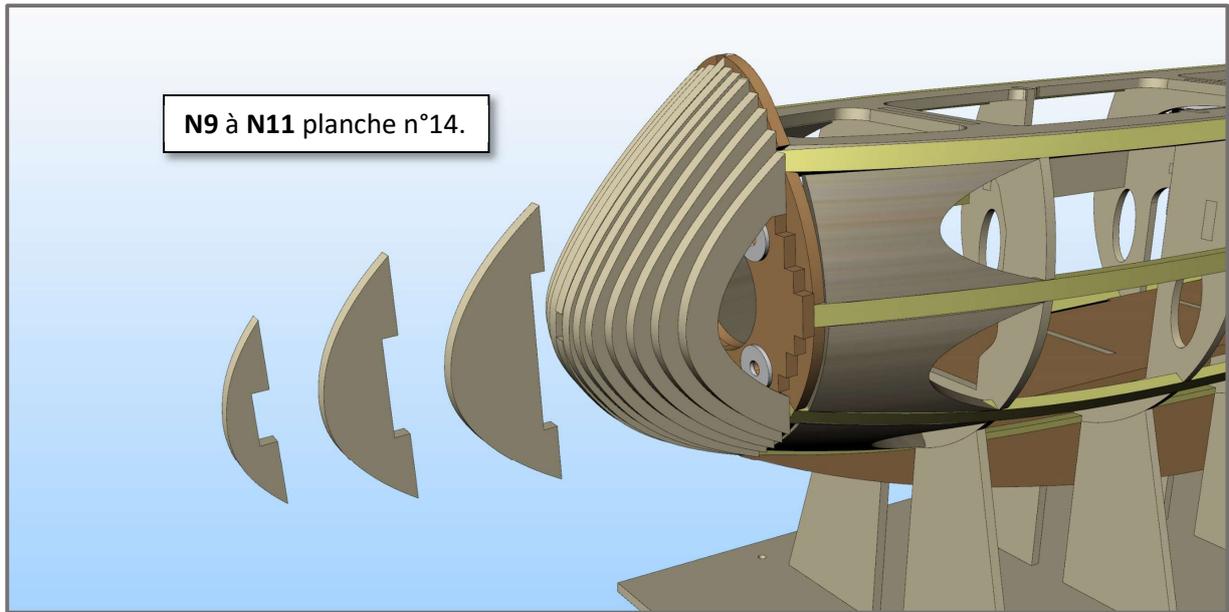
Empilez et collez une à une les tranches constituant le nez planche n°14 N8 à N0 à N8.



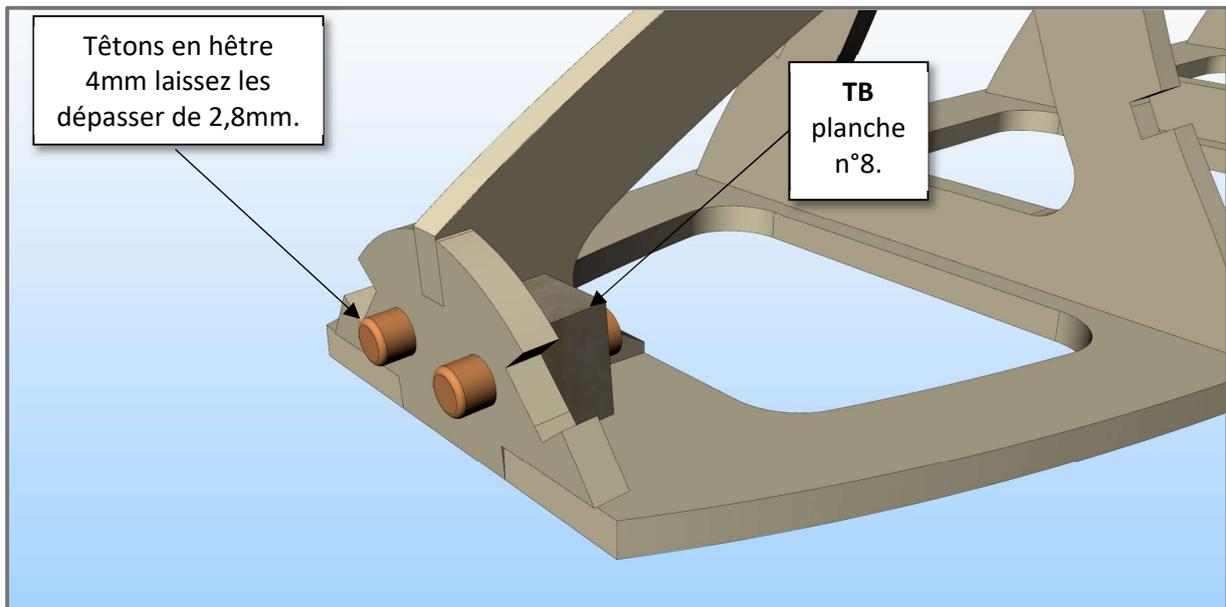
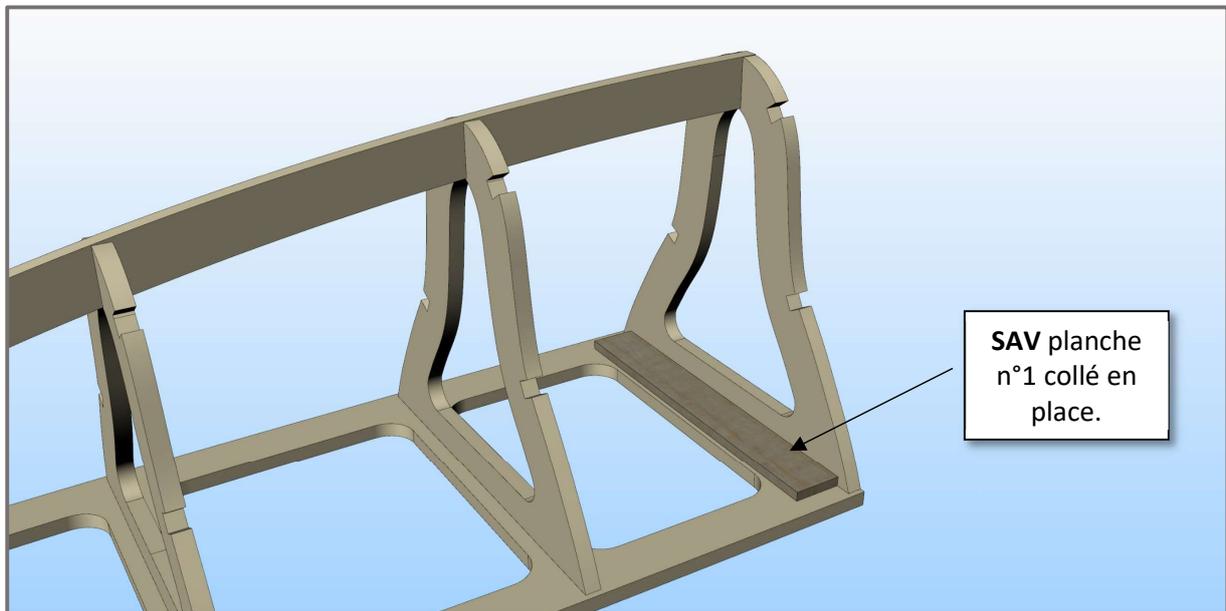
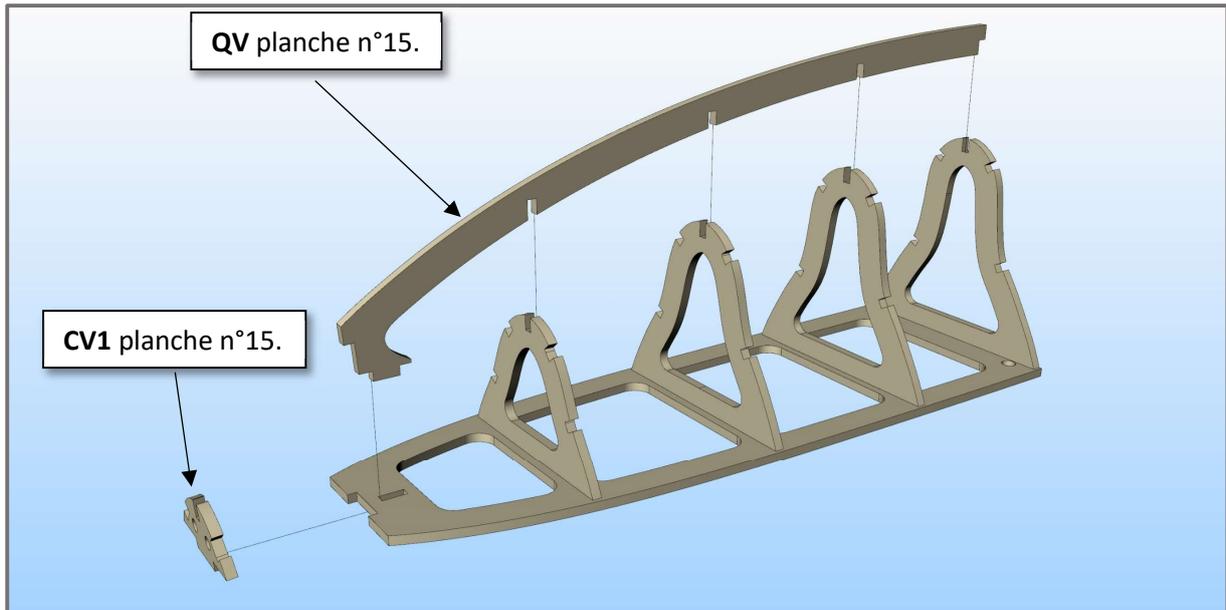
Puis collez l'ensemble sur C1.



# Bannsperber

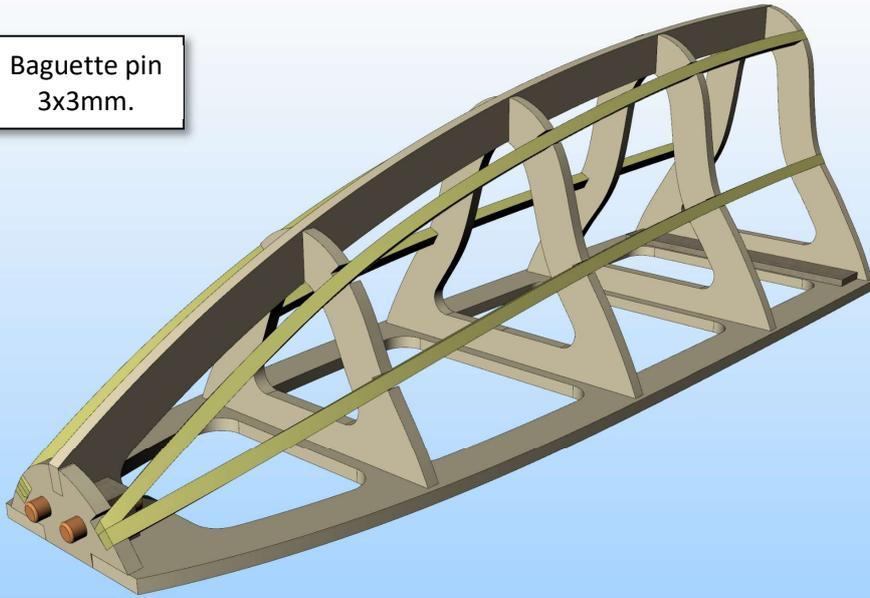


# Bannsperber

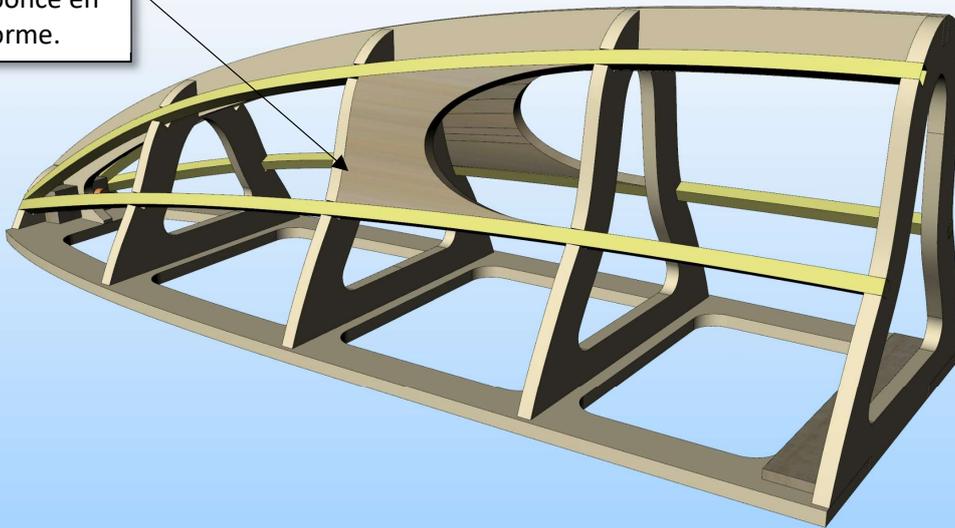


# Bannsperber

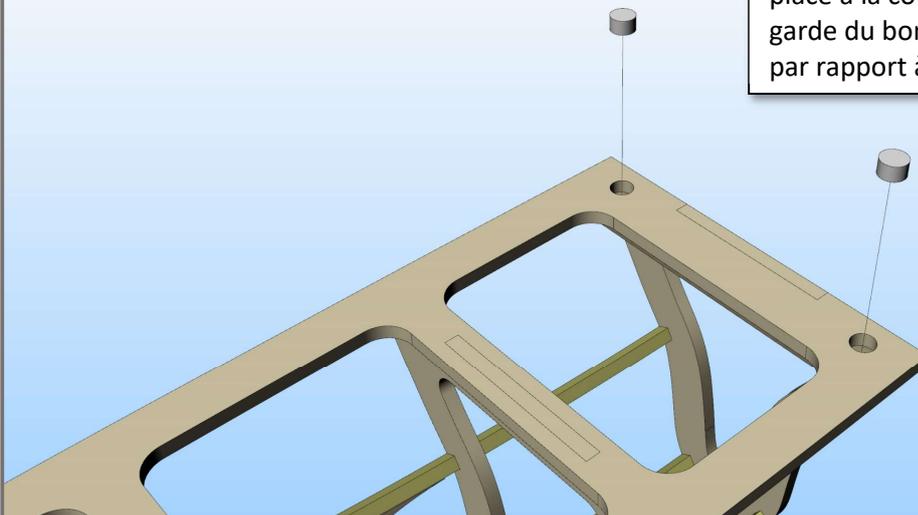
Baguette pin  
3x3mm.



VB planche  
n°8 poncé en  
forme.

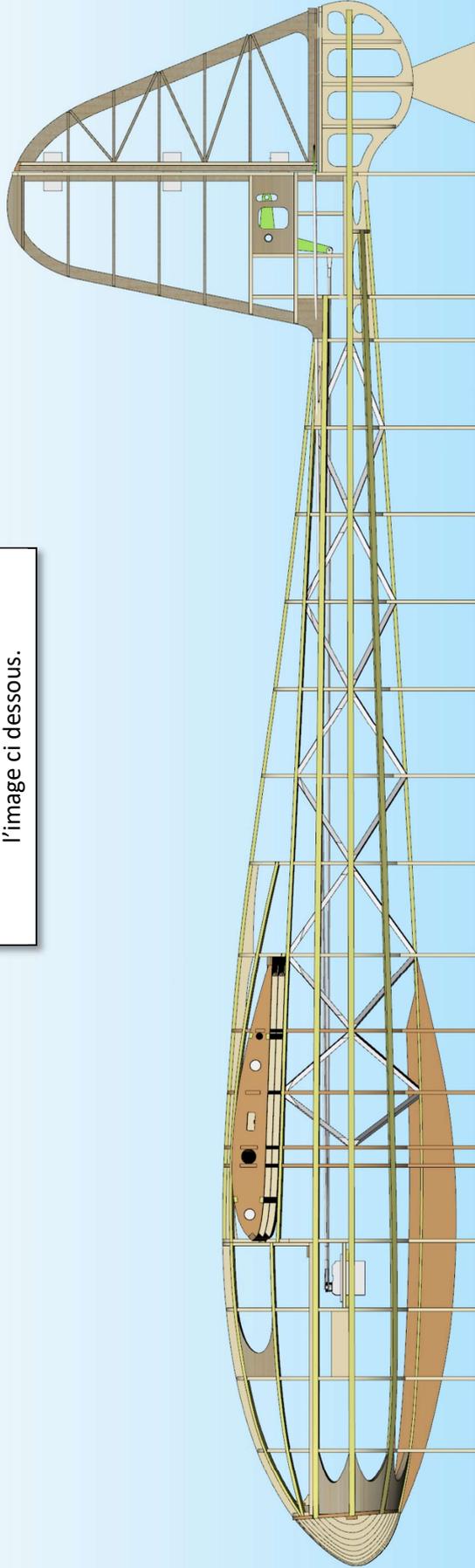


**Attention!** Collez les aimants en  
place à la colle époxy en prenant  
garde du bon sens de la polarité  
par rapport à ceux du fuselage.

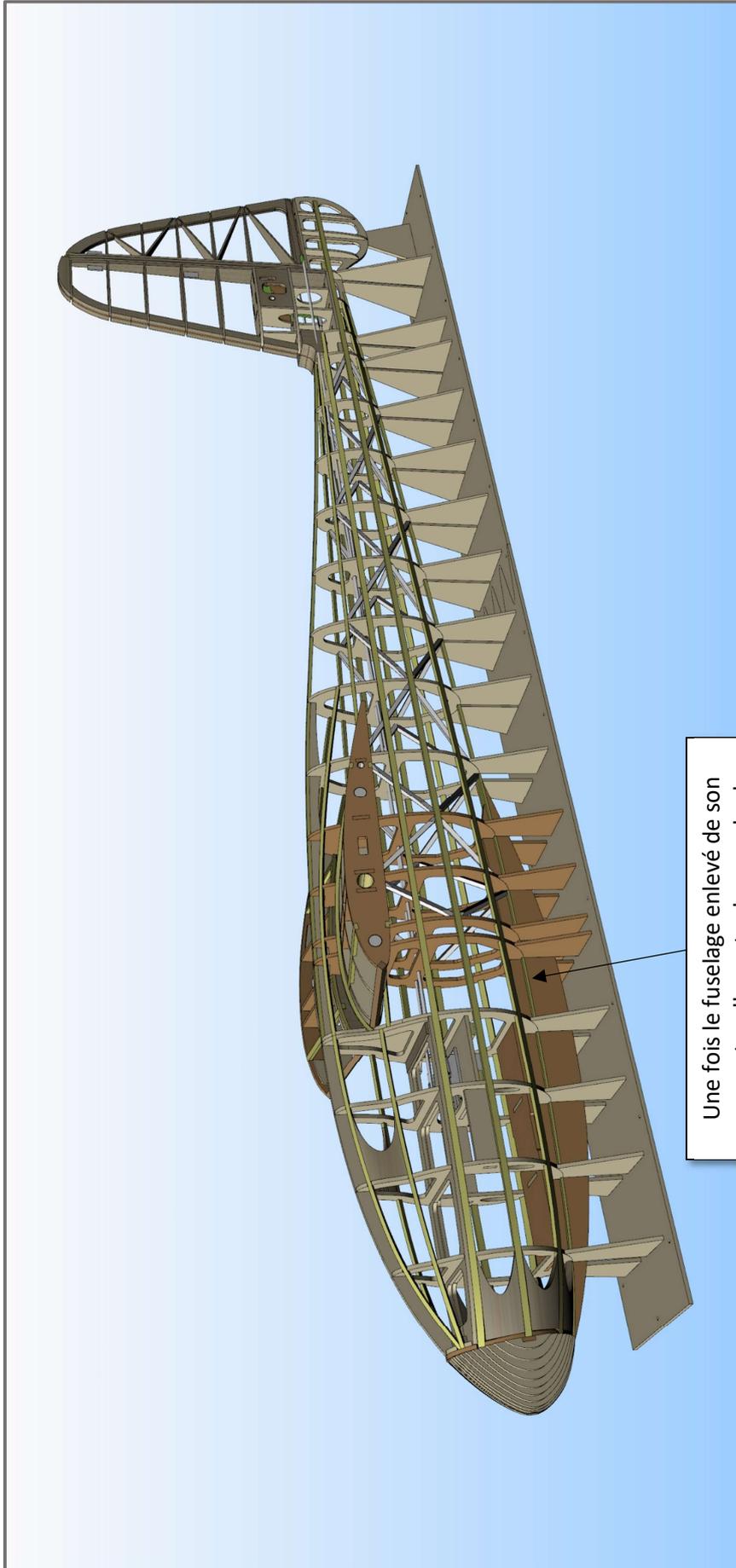


# Bannsperber

Réalisez l'étrésillonnage du fuselage en baguette balsa 4x4mm comme l'image ci dessous.



# Bannspërber

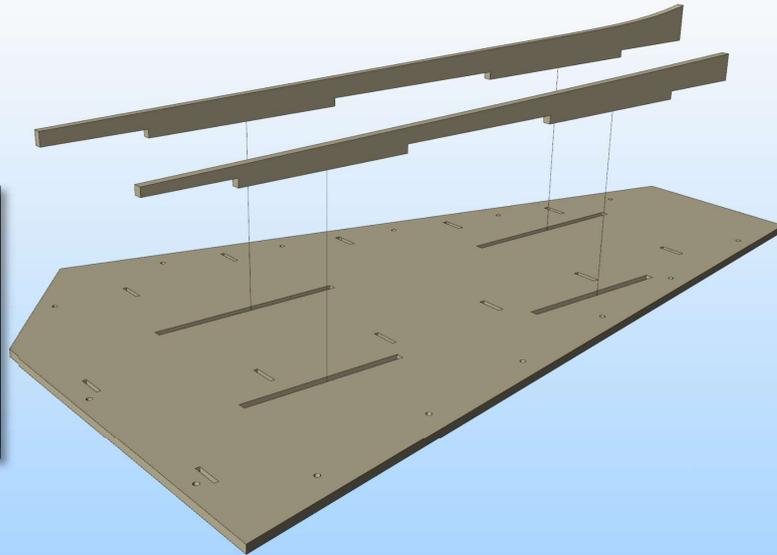


Une fois le fuselage enlevé de son support, collez entre les couples la baguette balsa 5x5mm.

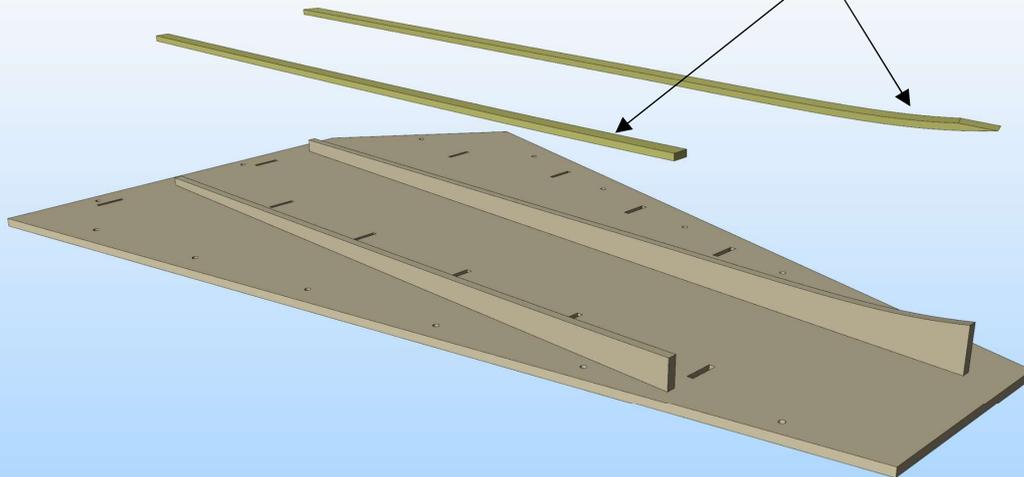
# Bannsperber

## Stabilisateur

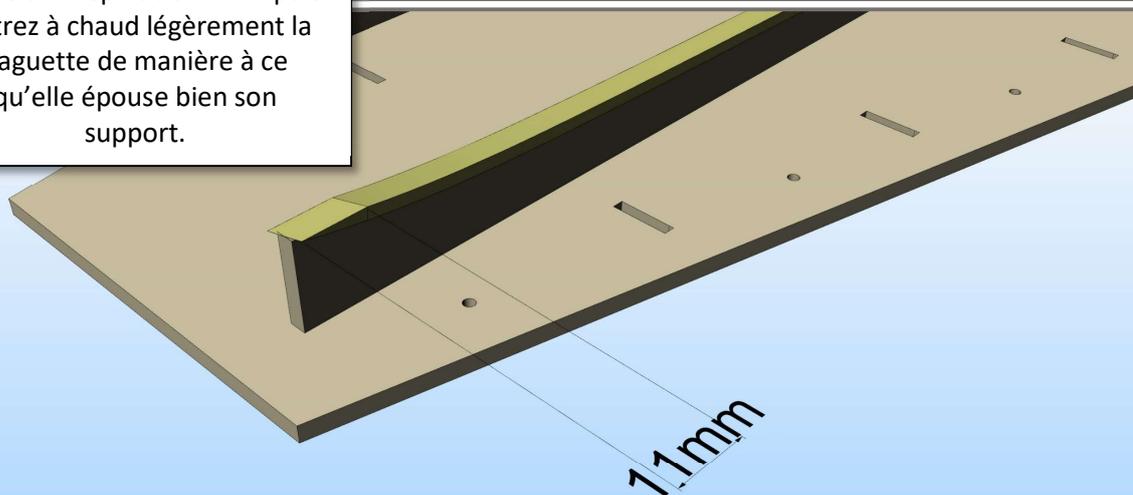
Vissez en place le gabarit de stab sur un support bien plat, puis venez encaster les cales de longerons se trouvant planche n°14.



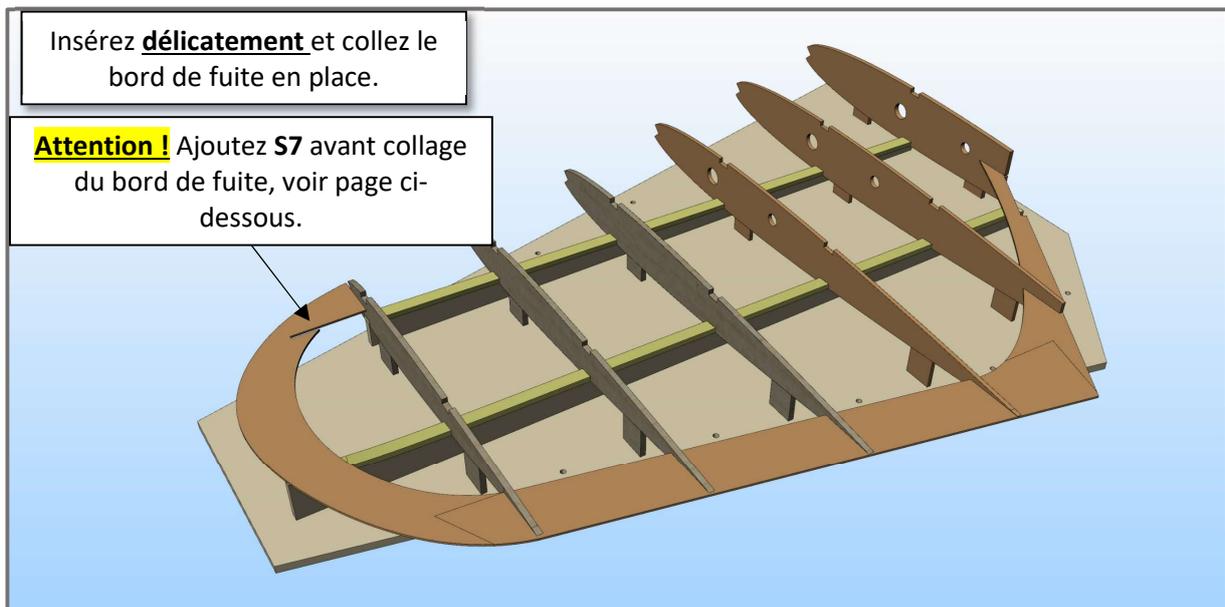
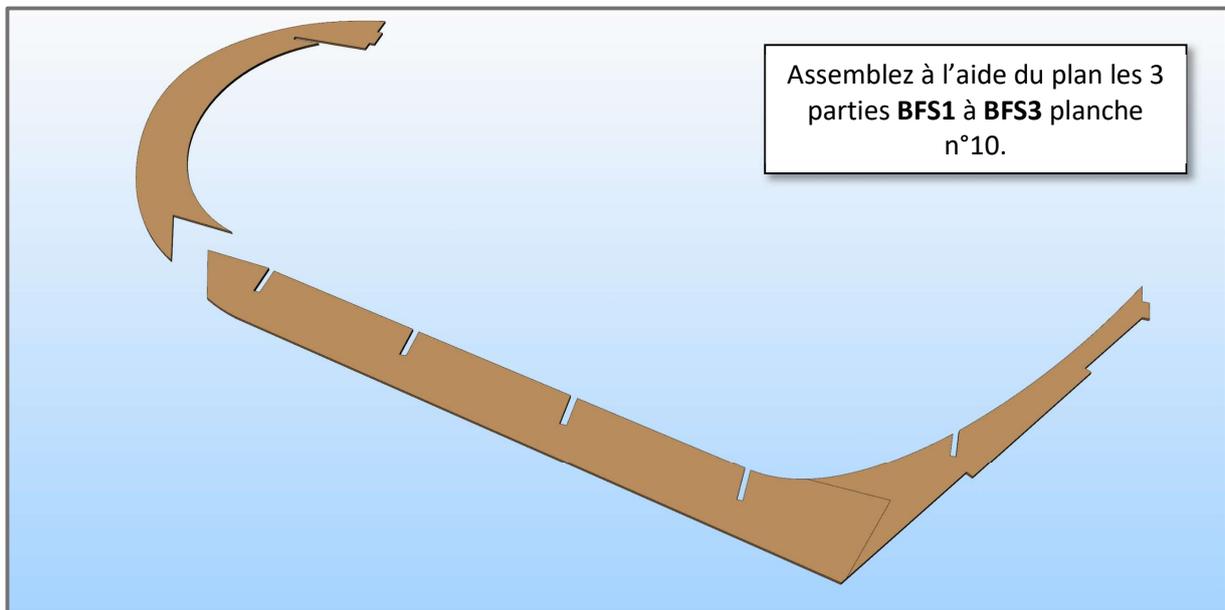
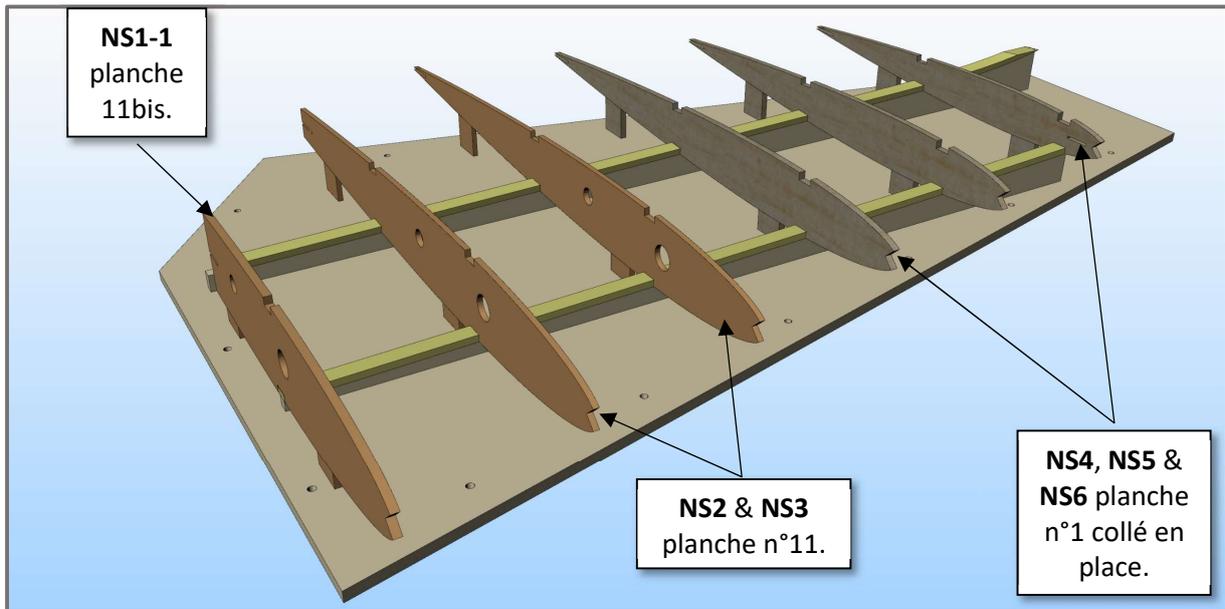
Baguette pin 5x2mm.



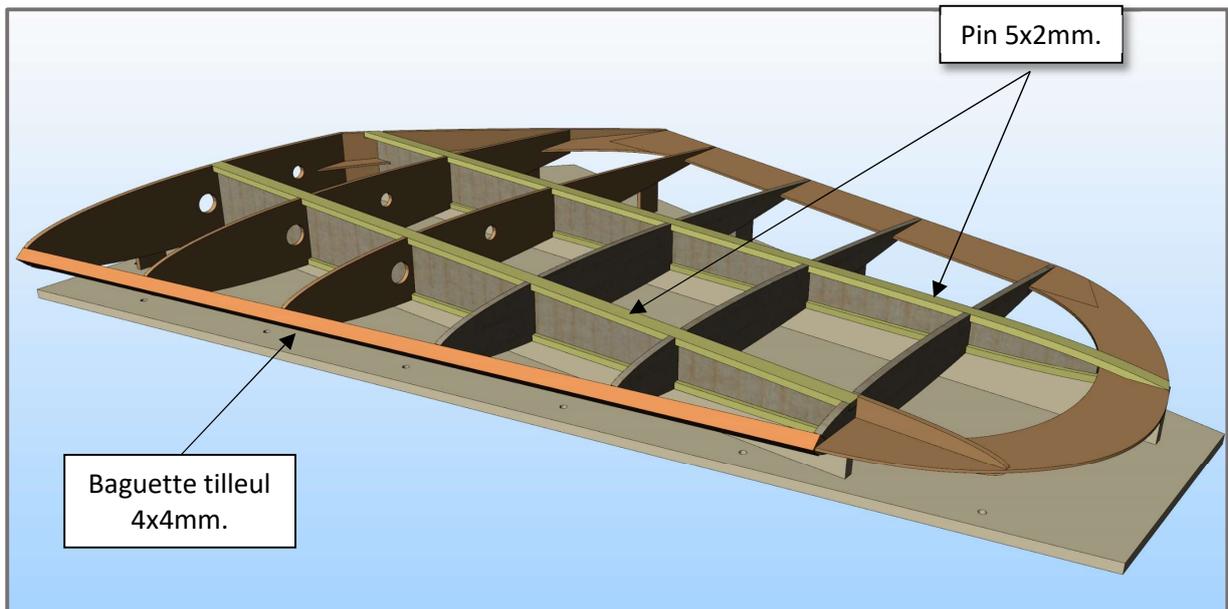
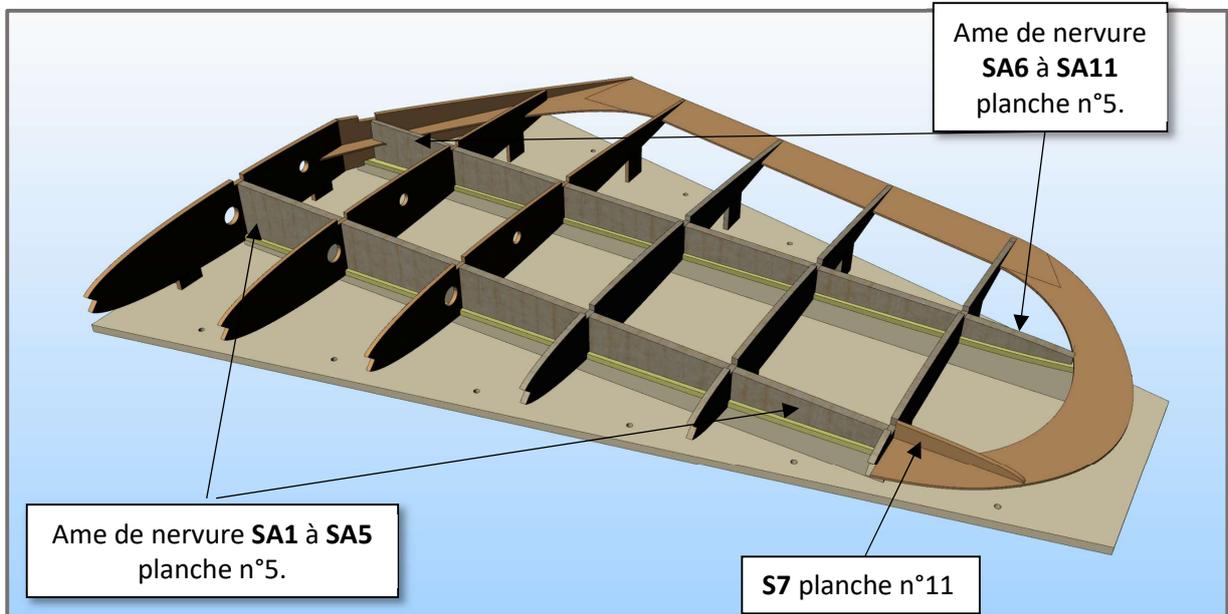
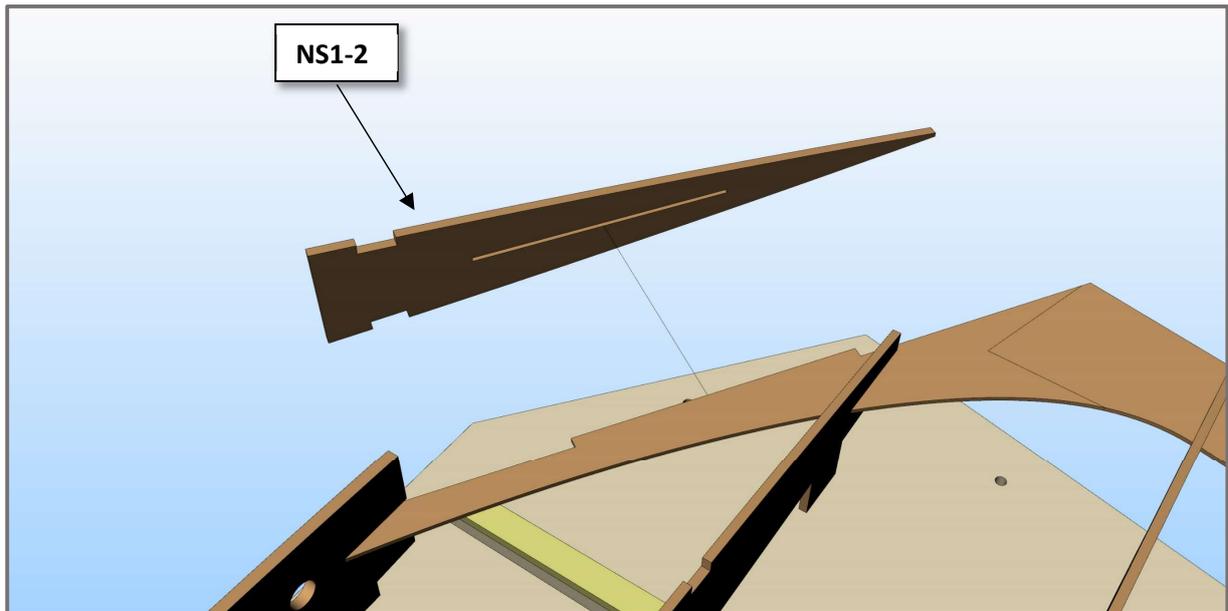
Faites un méplat de 11mm puis cintrez à chaud légèrement la baguette de manière à ce qu'elle épouse bien son support.



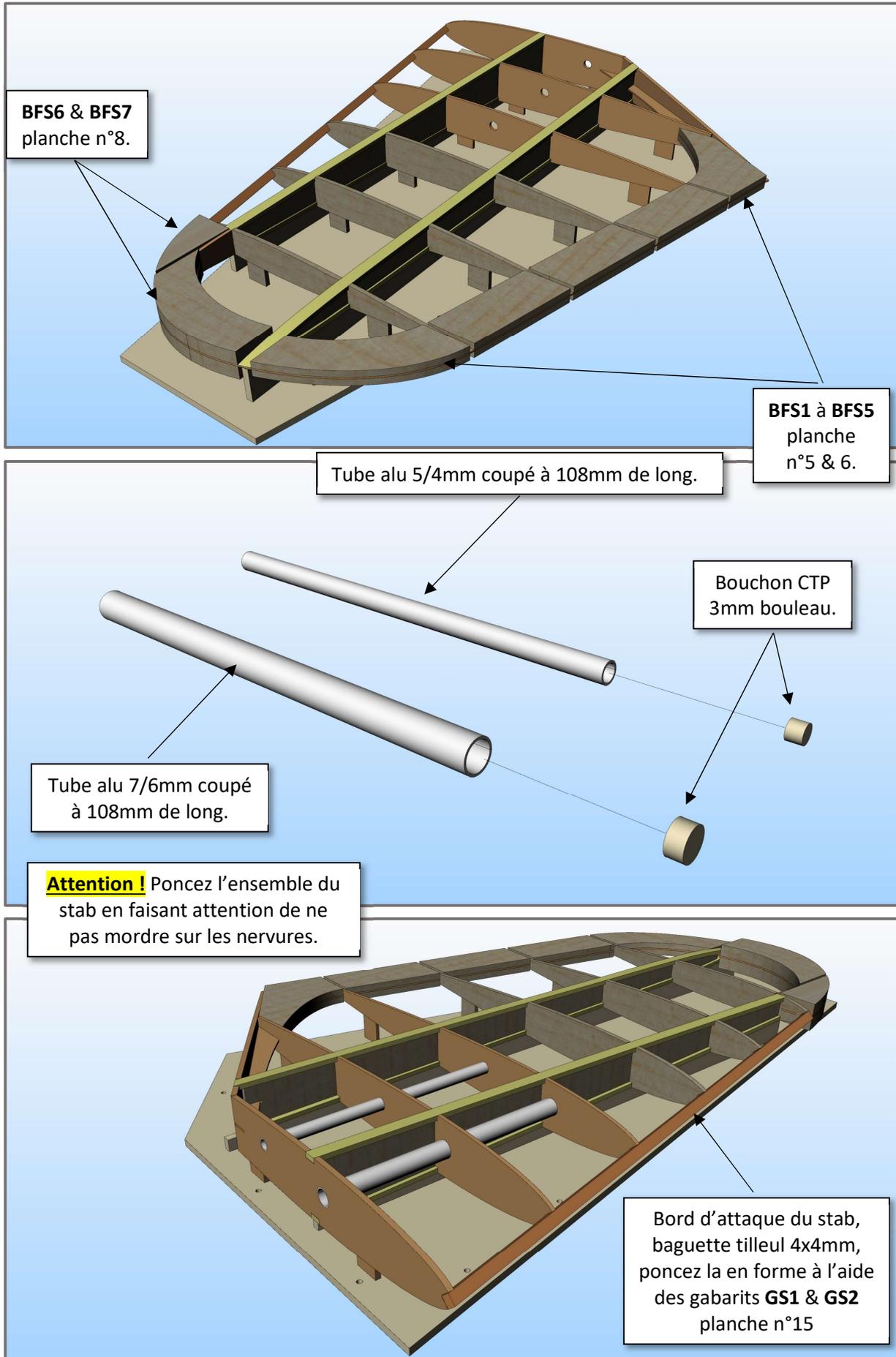
# Bannsperber



# Bannspërber

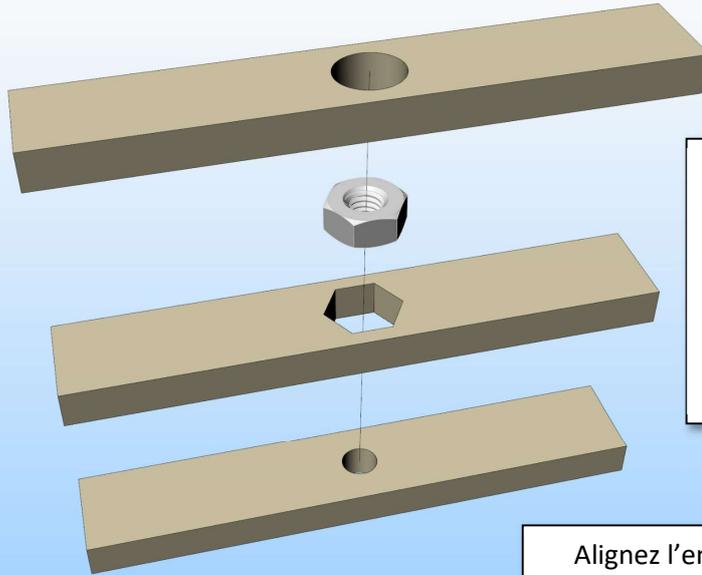


# Bannsperber



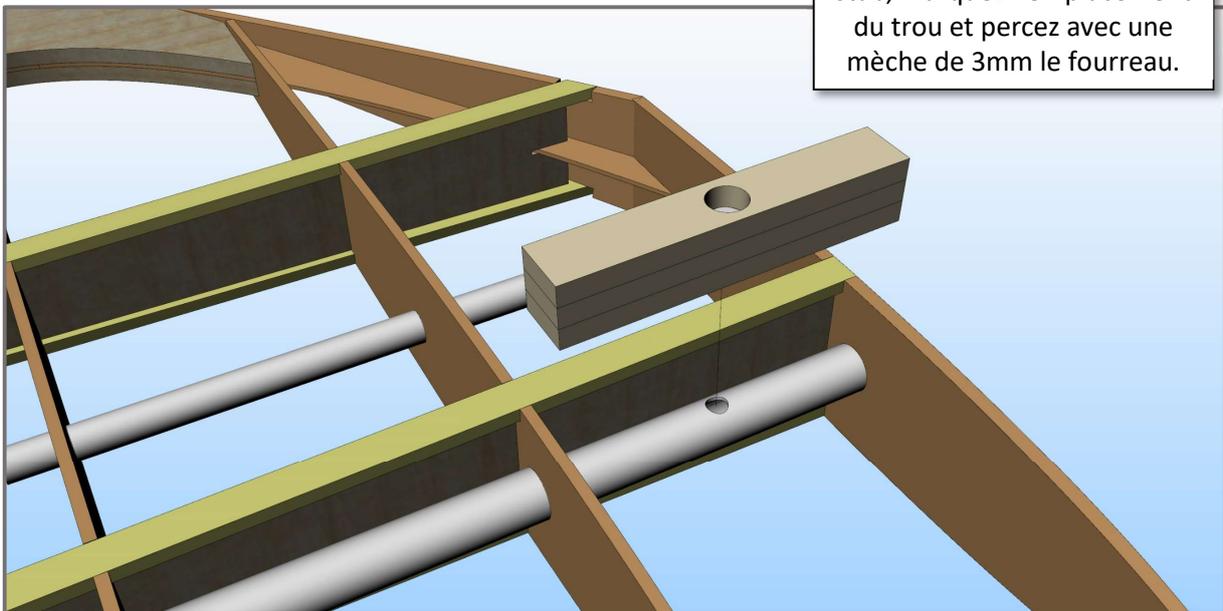
## Bannsperber

Enlever le stab de son chantier.  
Le retourner.  
Coller le système de maintien du côté où se trouvent les jambettes de nervure.  
Respecter le sens du stab, voir page 73.

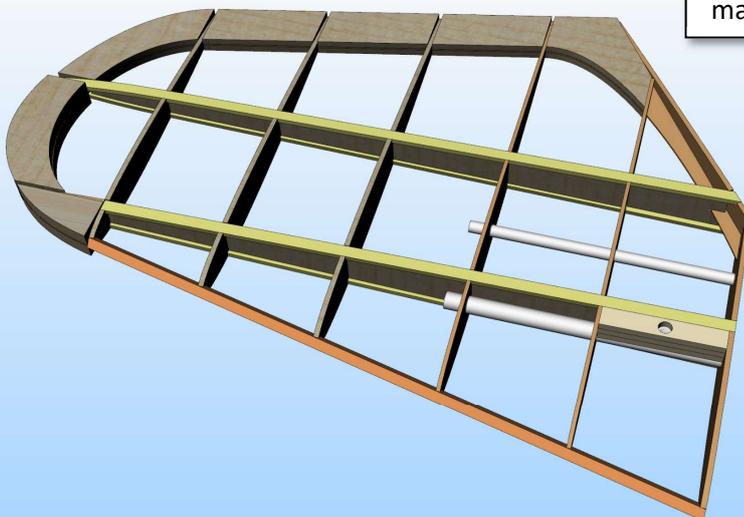


Système de serrage du stab FS1 à FS3 planche n°14 collés ensemble, l'écrou M3 doit être collé dans son logement à la colle époxy.

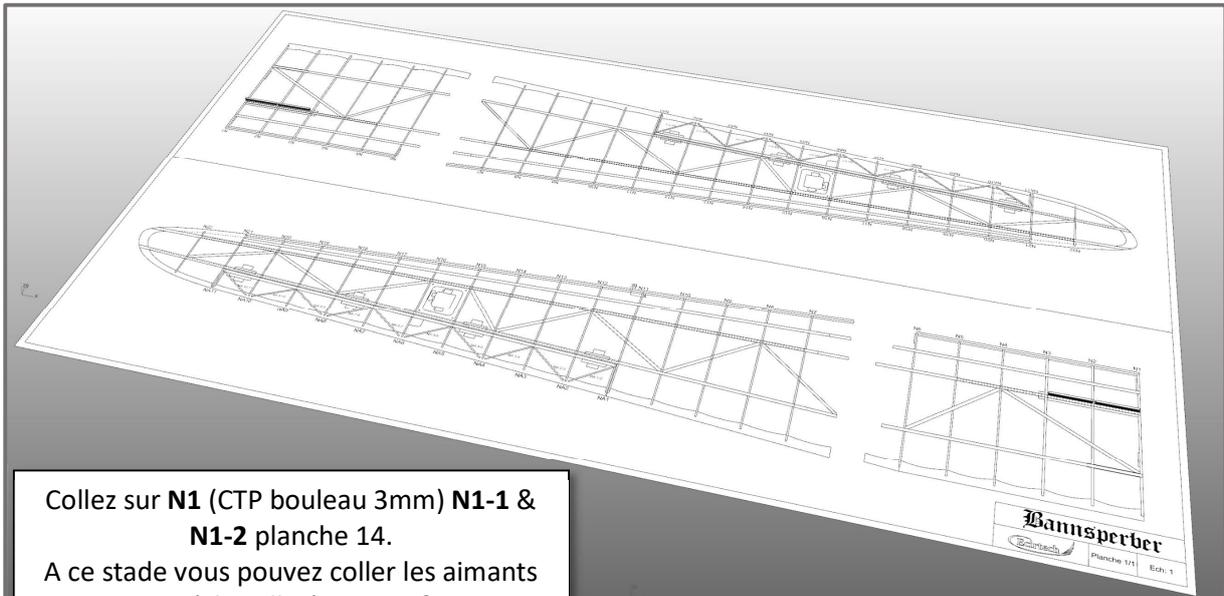
Alignez l'ensemble sur le stab, marquez l'emplacement du trou et percez avec une mèche de 3mm le fourreau.



Puis collez le système de maintien à la colle époxy.

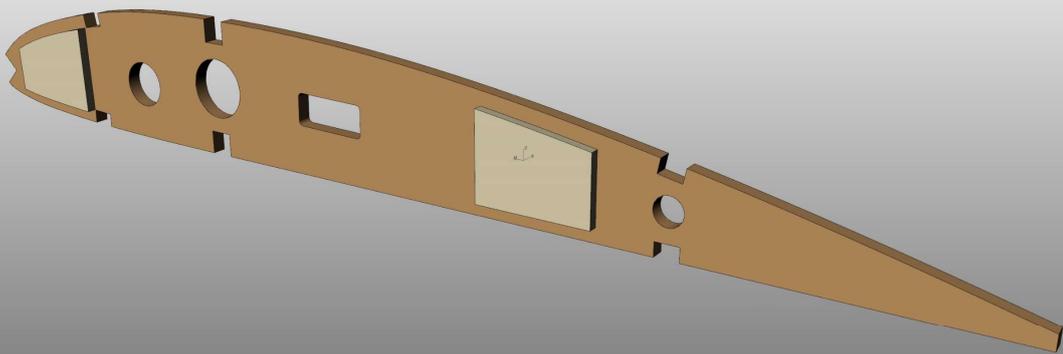


## Ailes



Collez sur **N1** (CTP bouleau 3mm) **N1-1** & **N1-2** planche 14.

A ce stade vous pouvez coller les aimants 10x3mm à la colle époxy en faisant attention de bien respecter le sens de la polarité par rapport au fuselage.

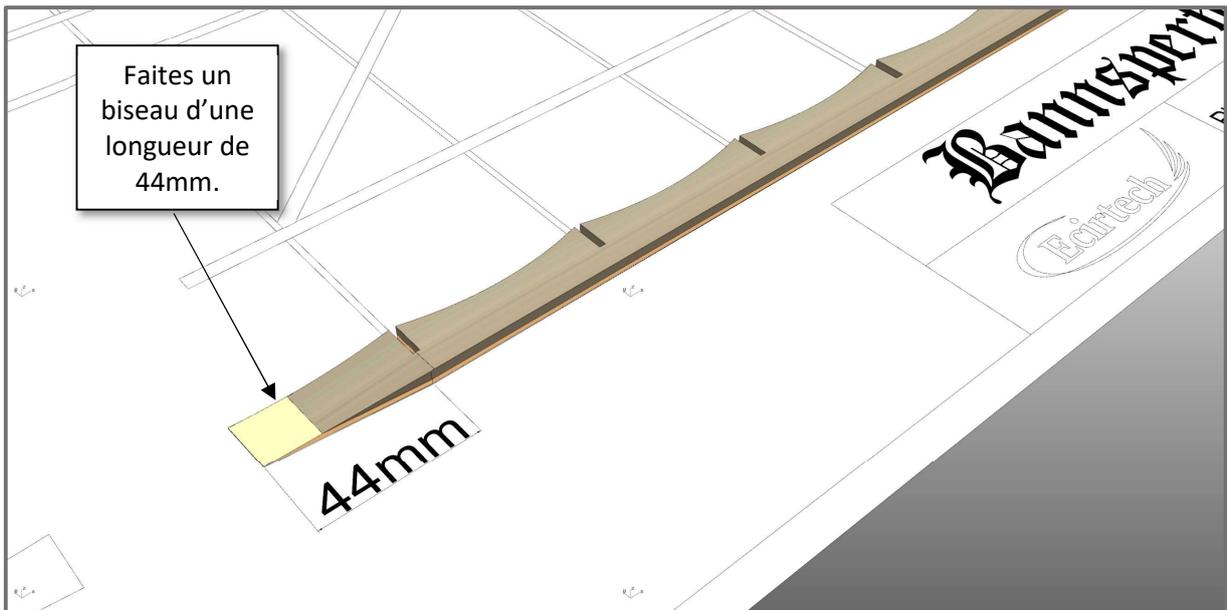
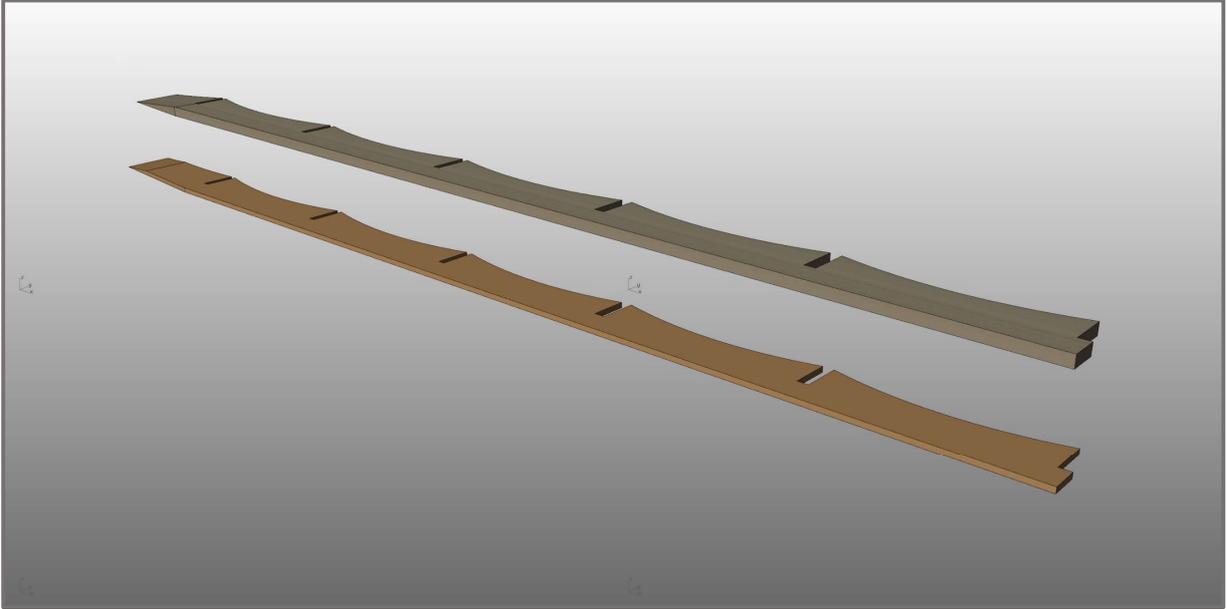


Collez **N6-1** sur **N6** en la centrant à l'aide de rond en hêtre 2mm fourni dans le kit.

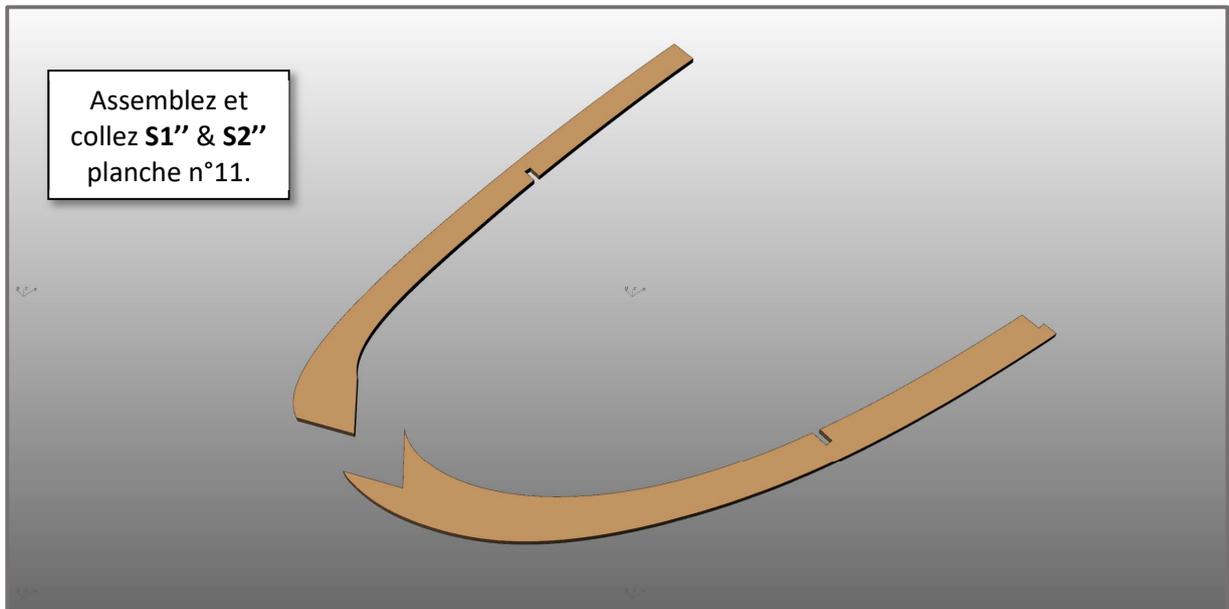
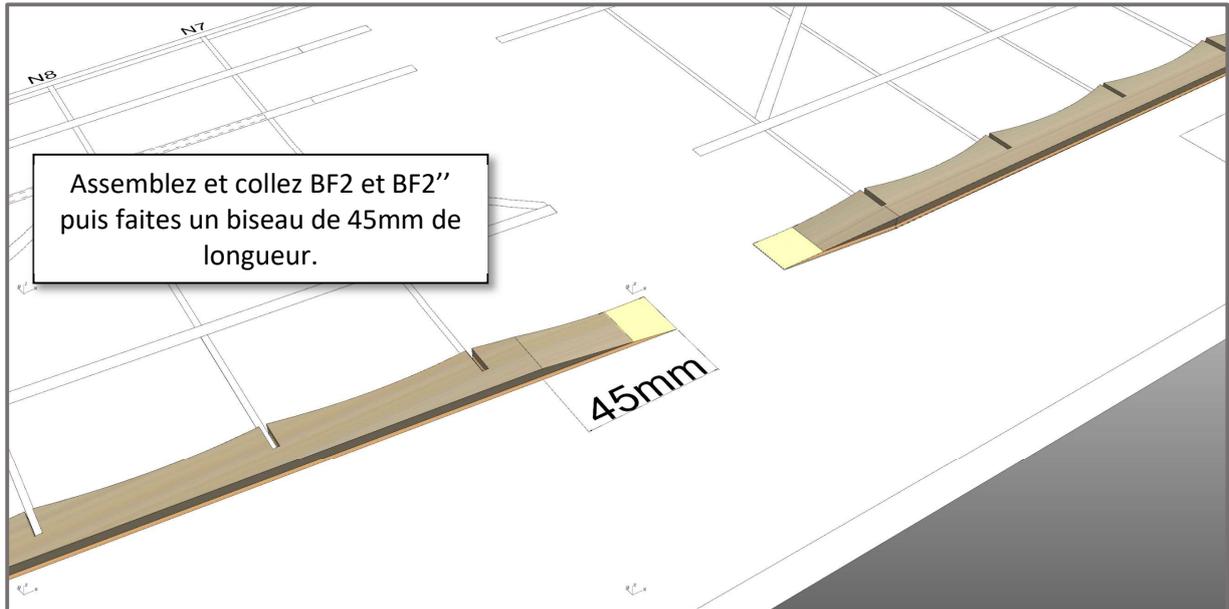


# Bannisperber

Bord de fuite du 1<sup>er</sup> tronçon de l'aile, collez BF1 planche n°6 et BF1'' planche n°11 ensemble en les alignants parfaitement.

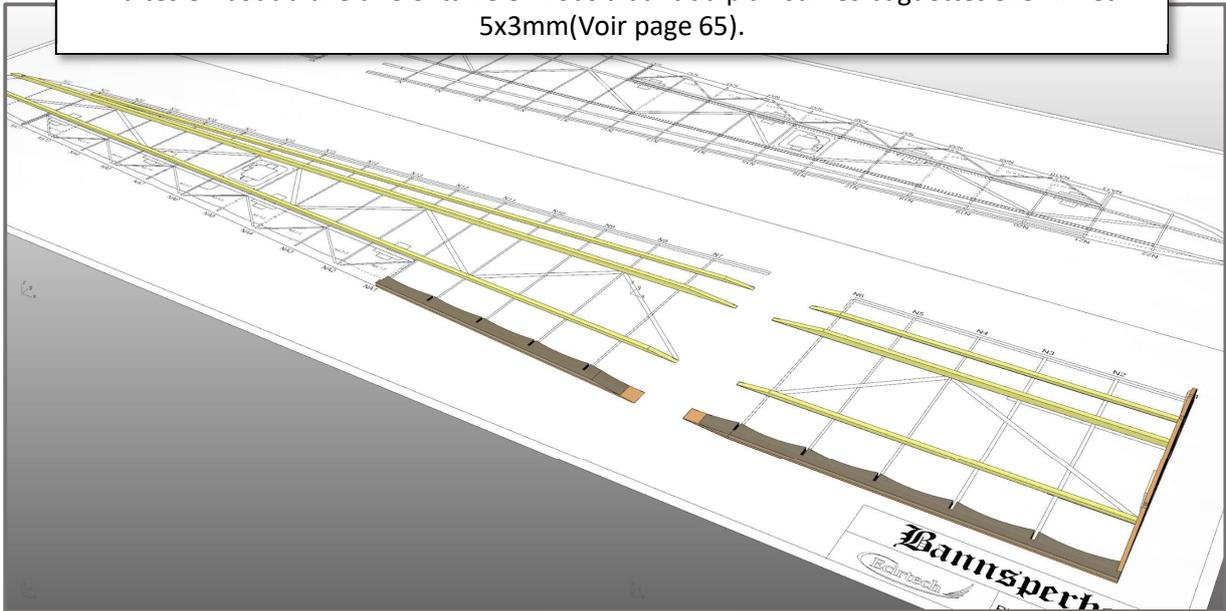


# Bannsperber



# Bannsperber

Alignez les baguettes sur le plan, pour les longueurs supérieures à 1m il sera nécessaire de coller les baguettes ensemble en faisant des entures de 40 à 50mm de long. Faites en bout d'aile une entaille en vous aidant du plan sur les baguettes 5x5mm et 5x3mm (Voir page 65).



**Attention !** Pour un parfait assemblage des deux tronçons les biseaux doivent être exactement aux longueurs indiquées ci-dessous.

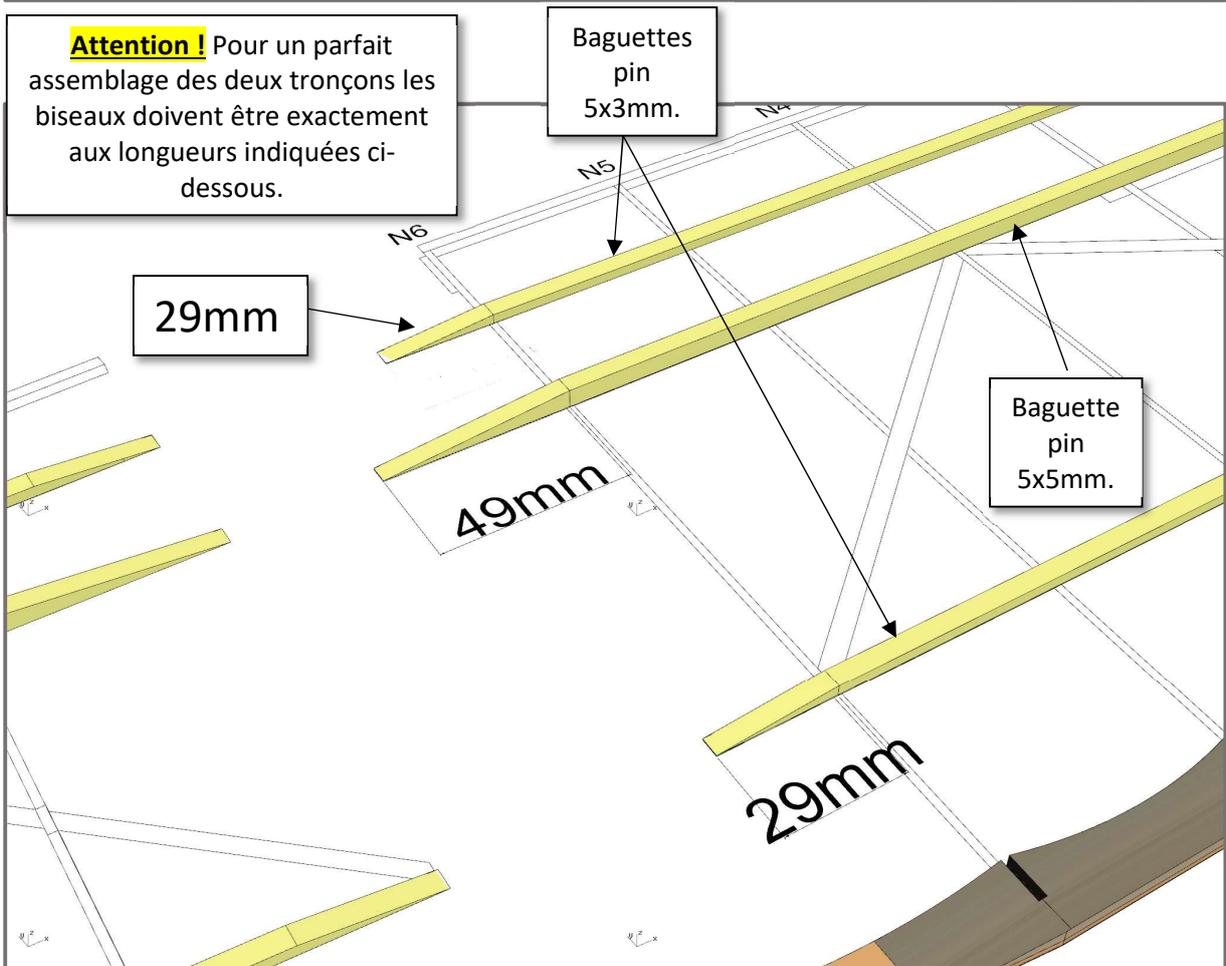
Baguettes pin 5x3mm.

Baguette pin 5x5mm.

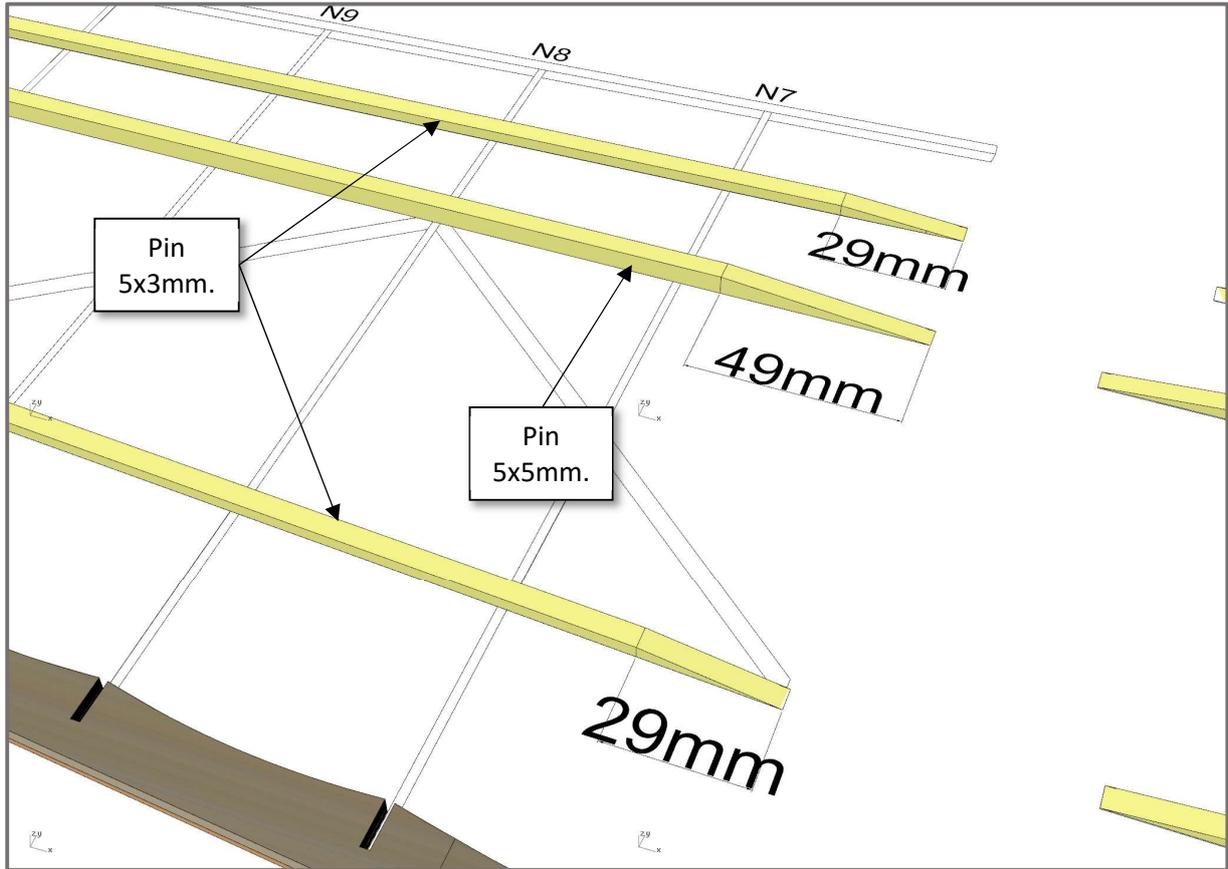
29mm

49mm

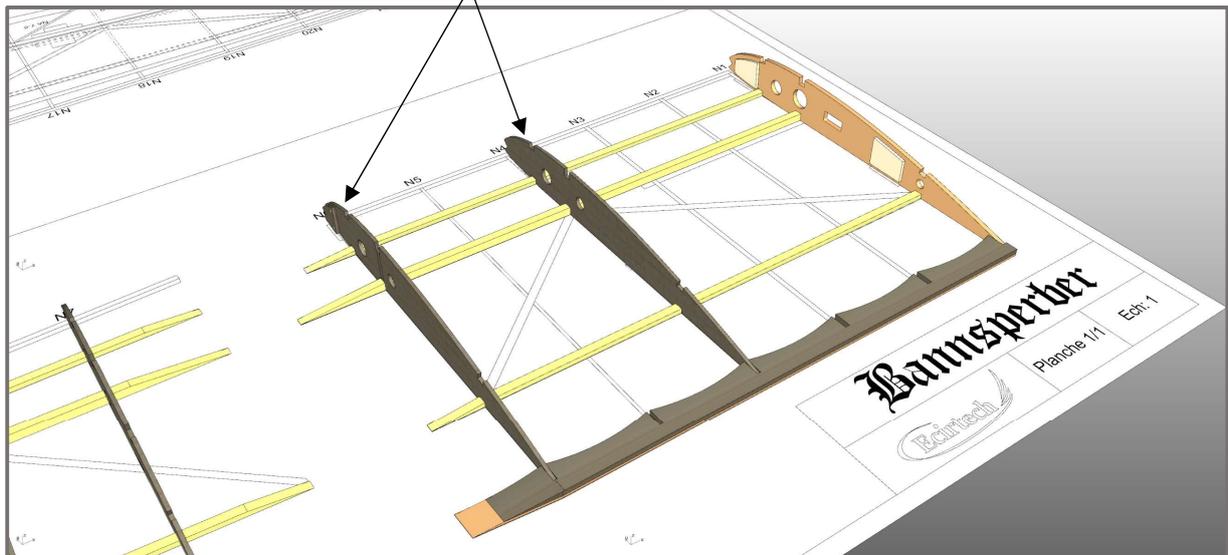
29mm

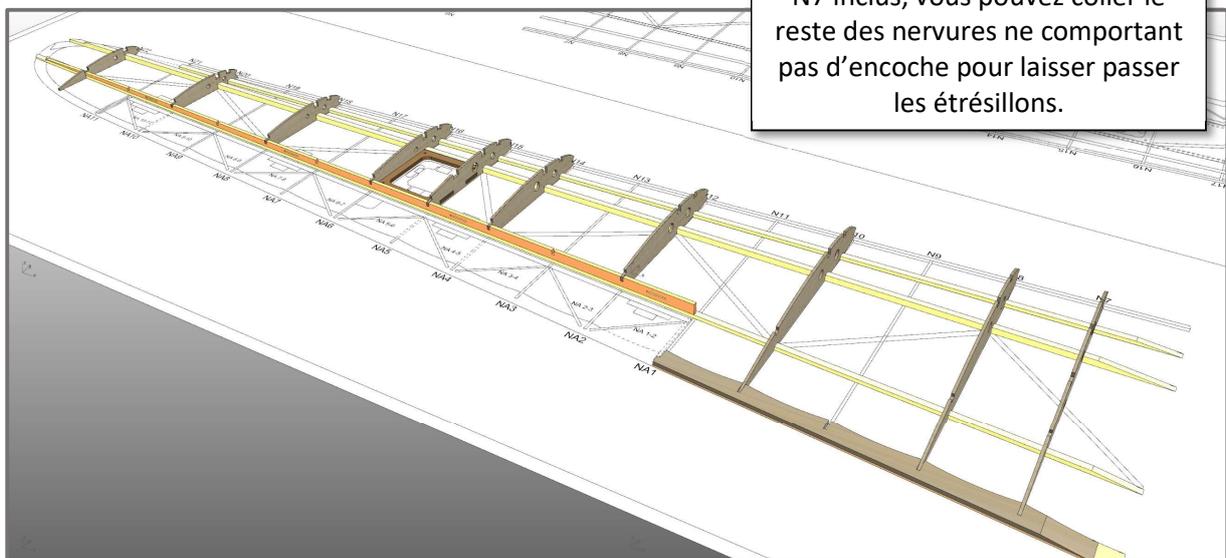
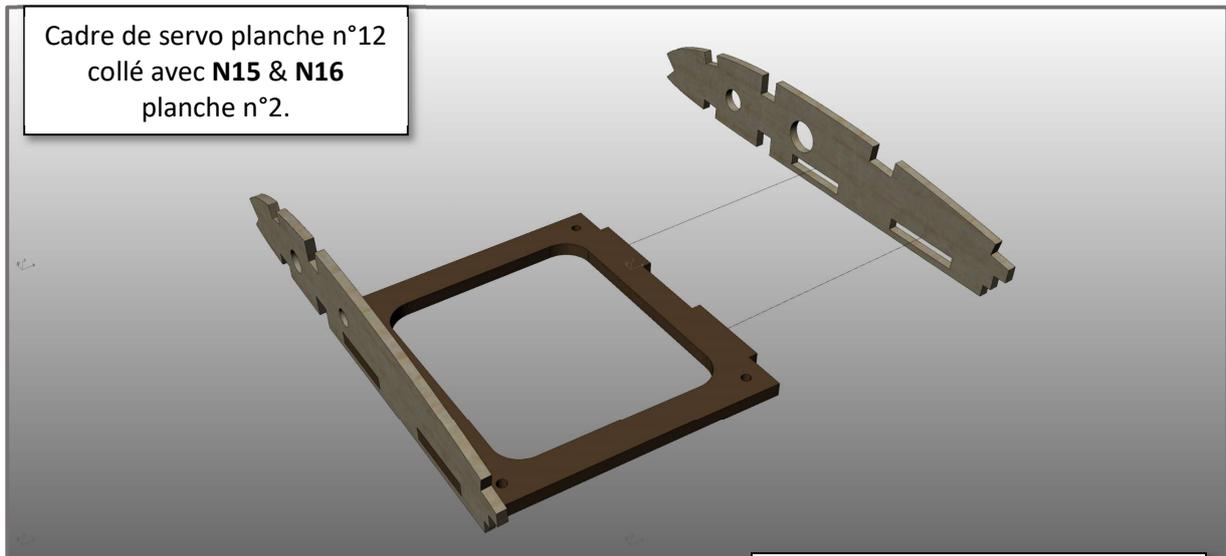
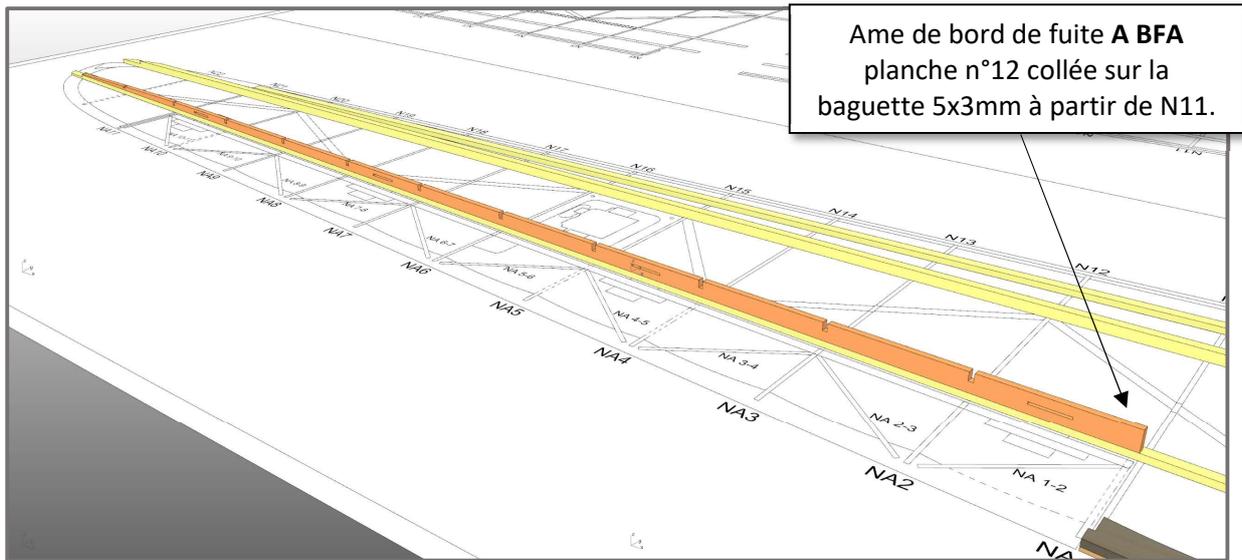


# Bannspërber

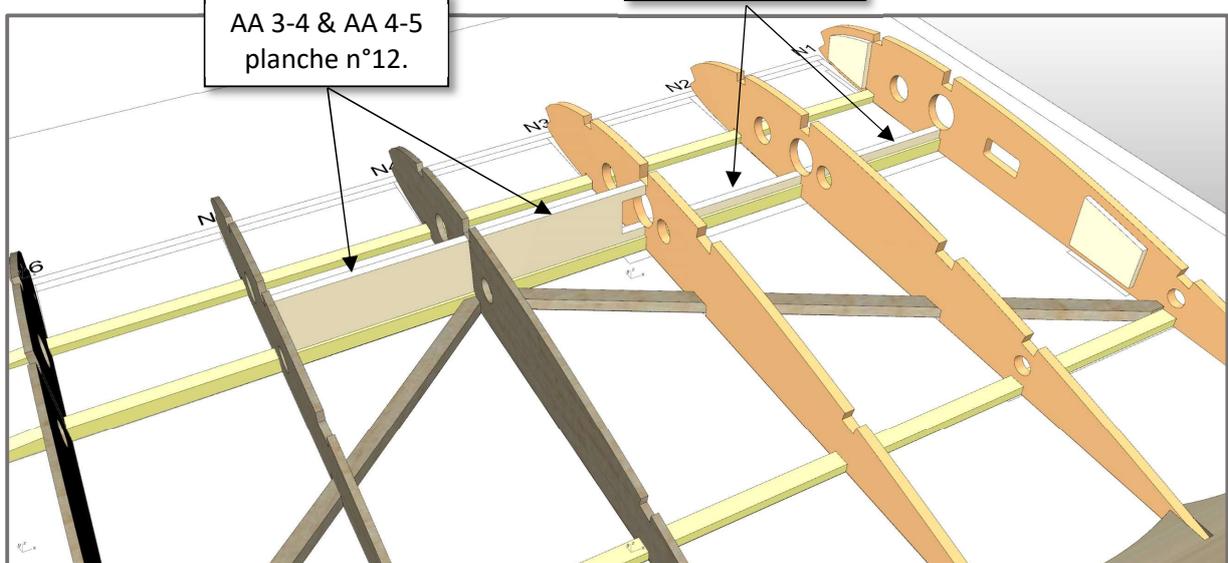
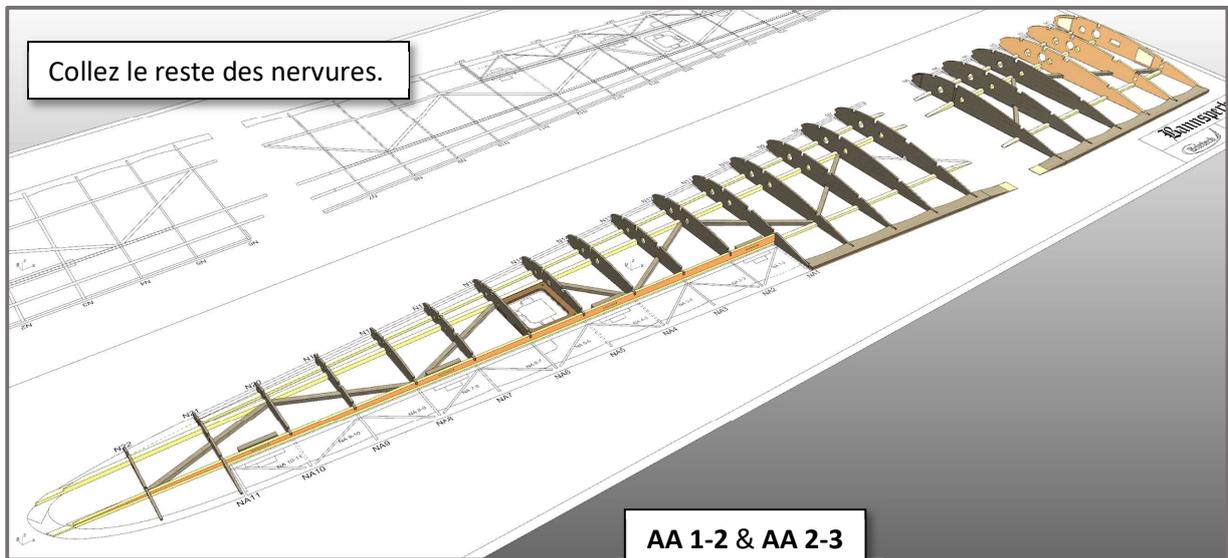
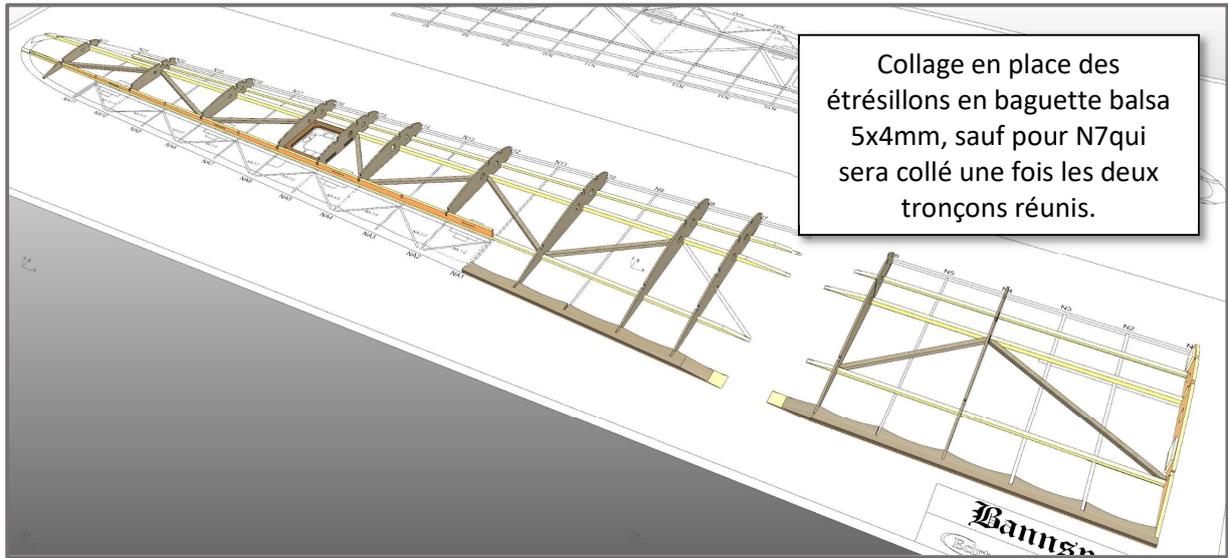


Collez N4 & N6 planche n°2.

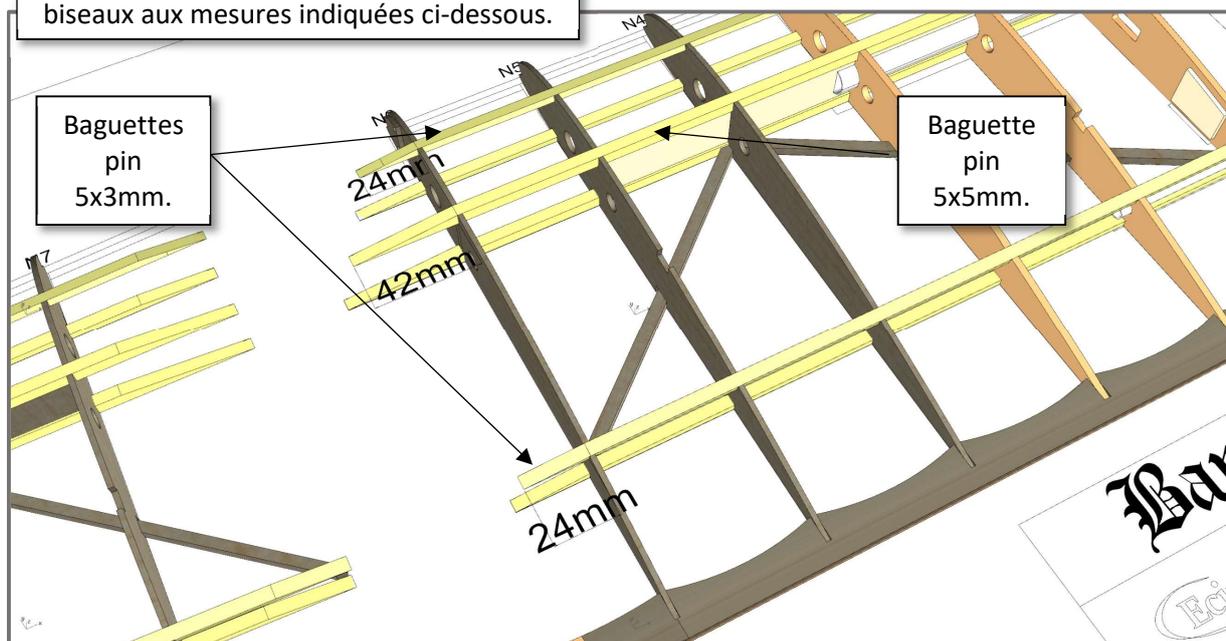
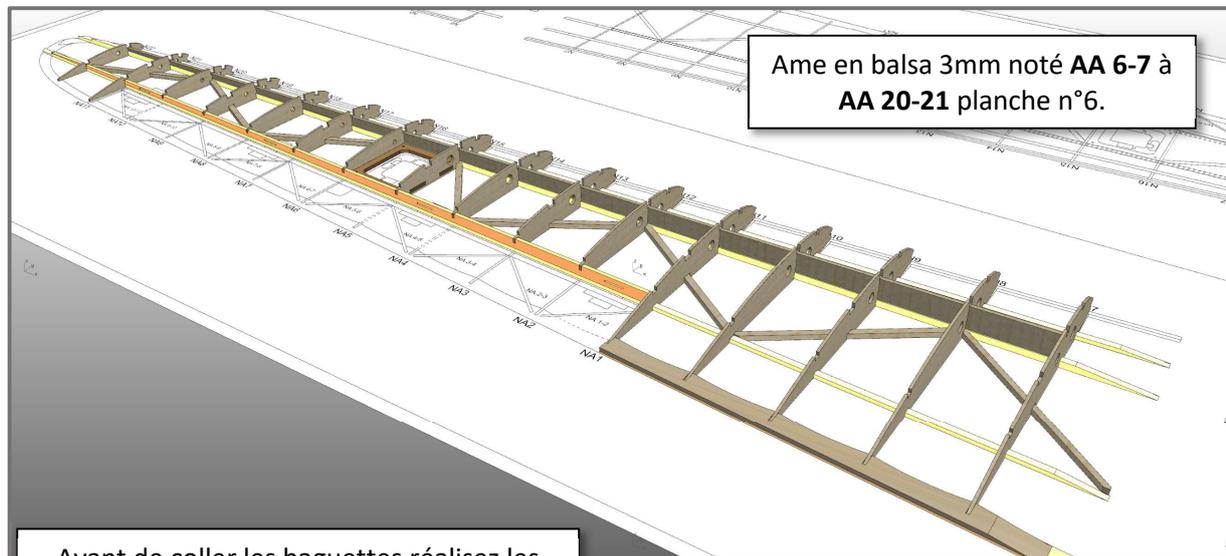
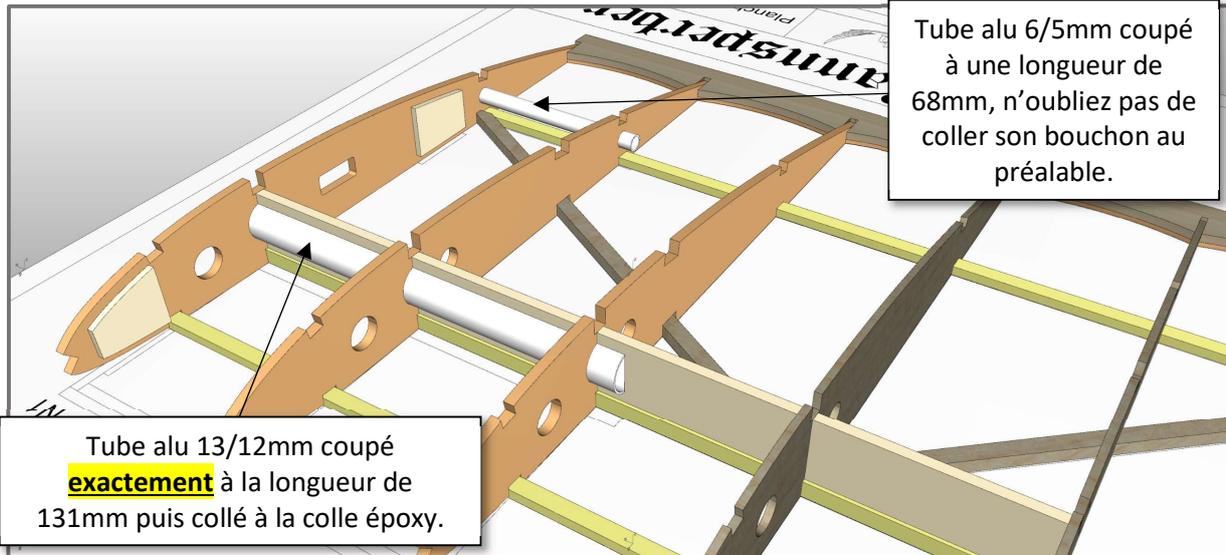




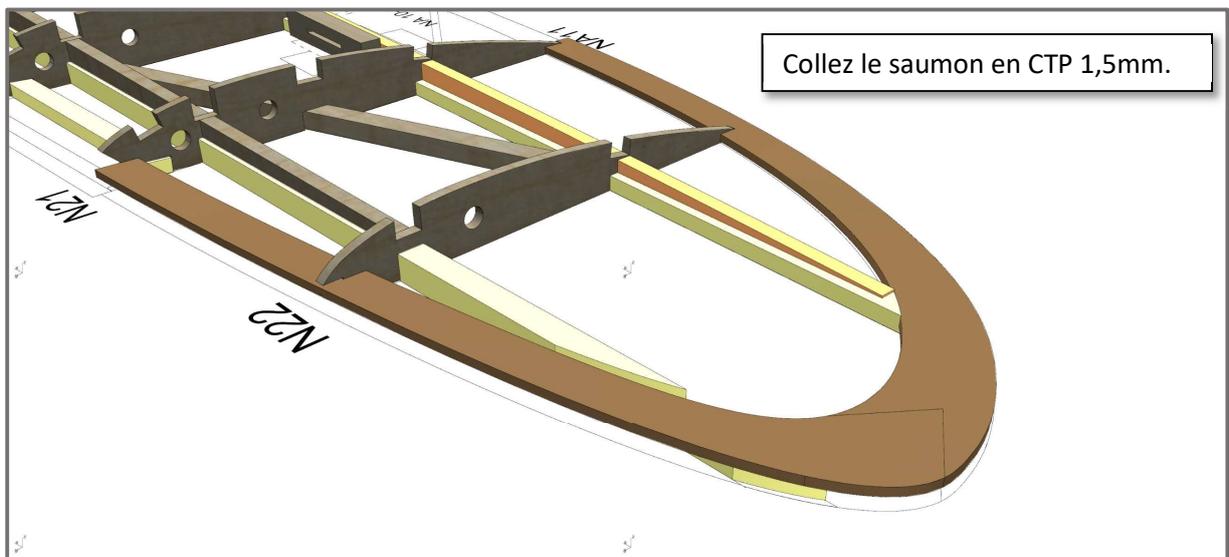
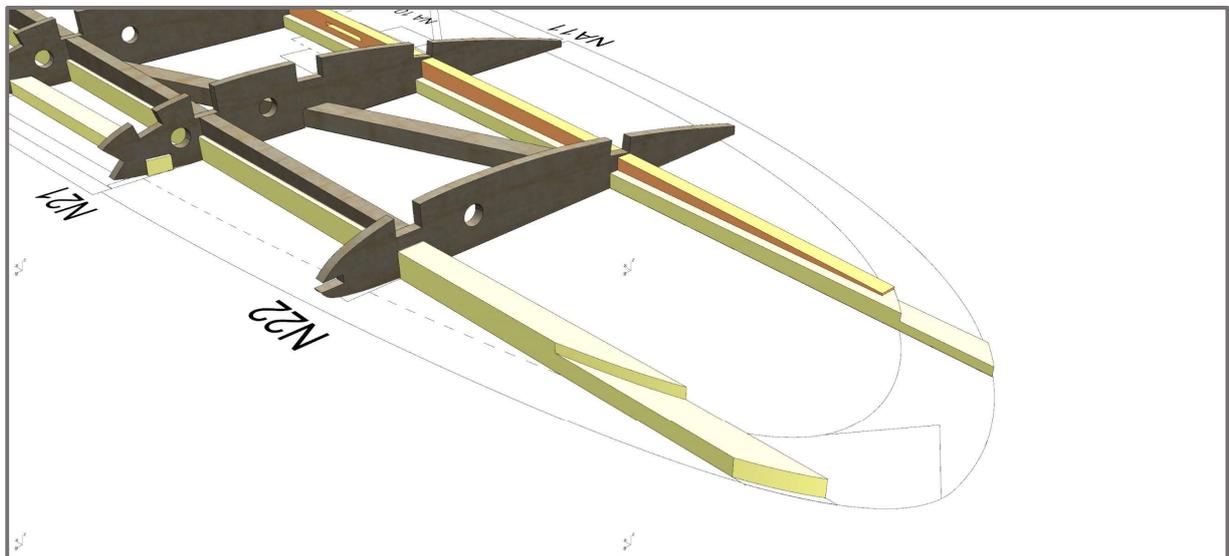
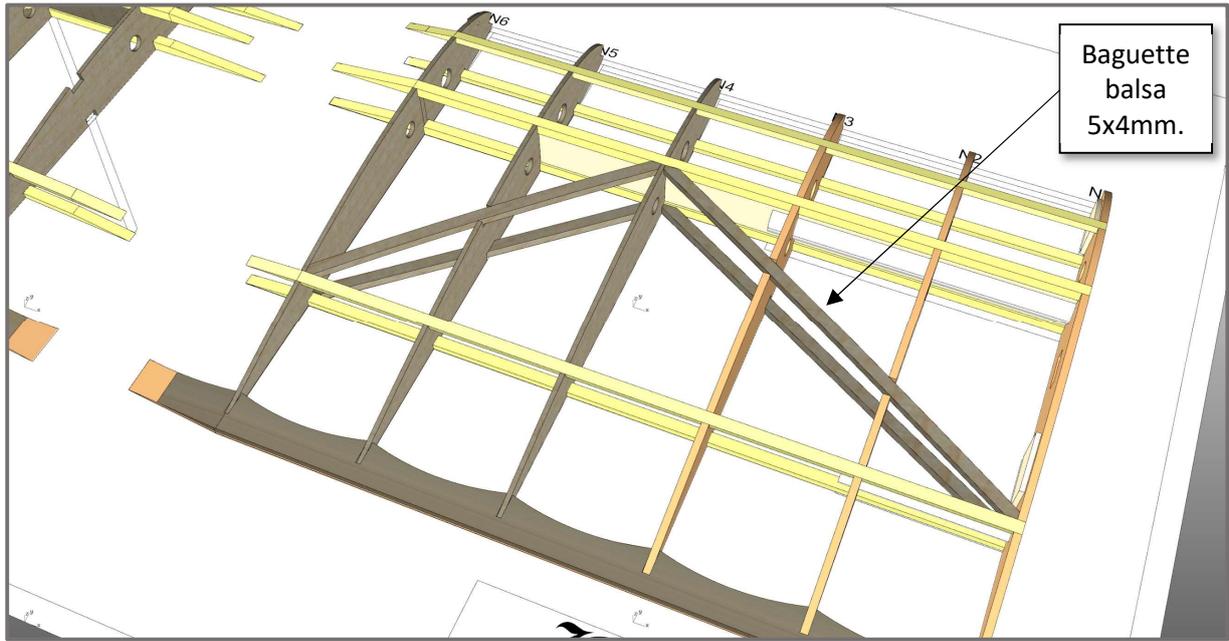
# Bannsperber



# Bannsperber

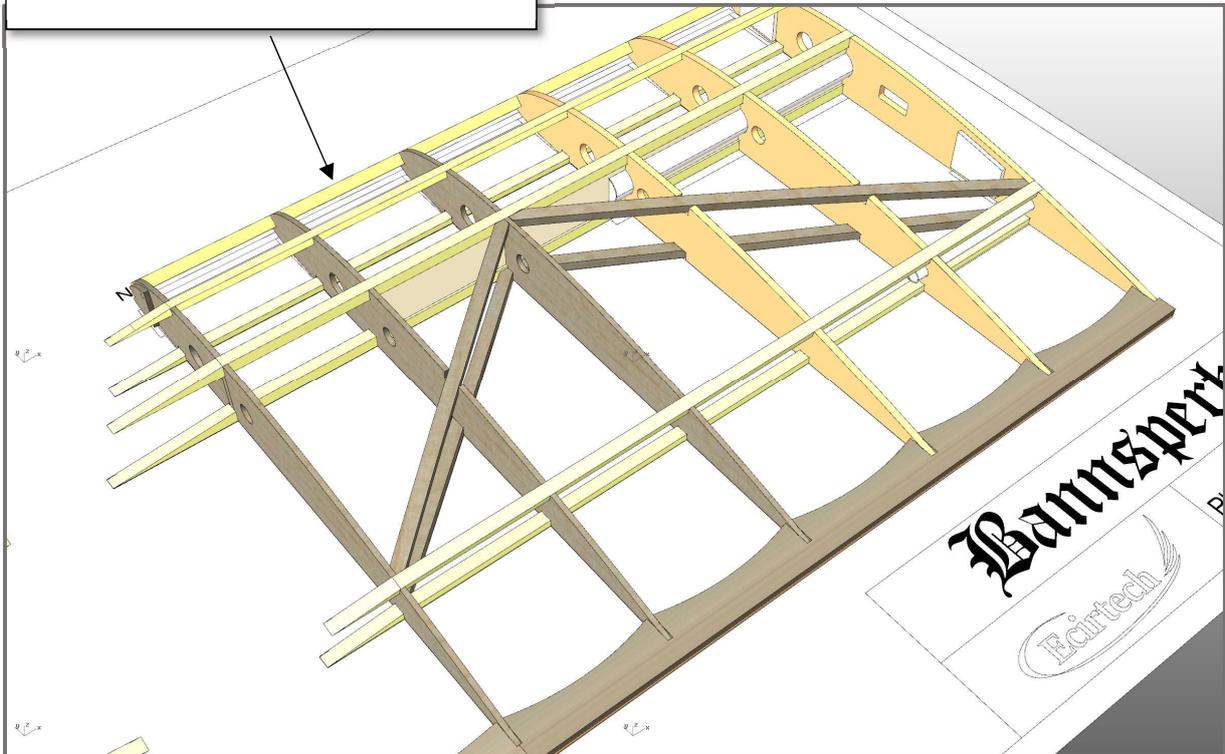


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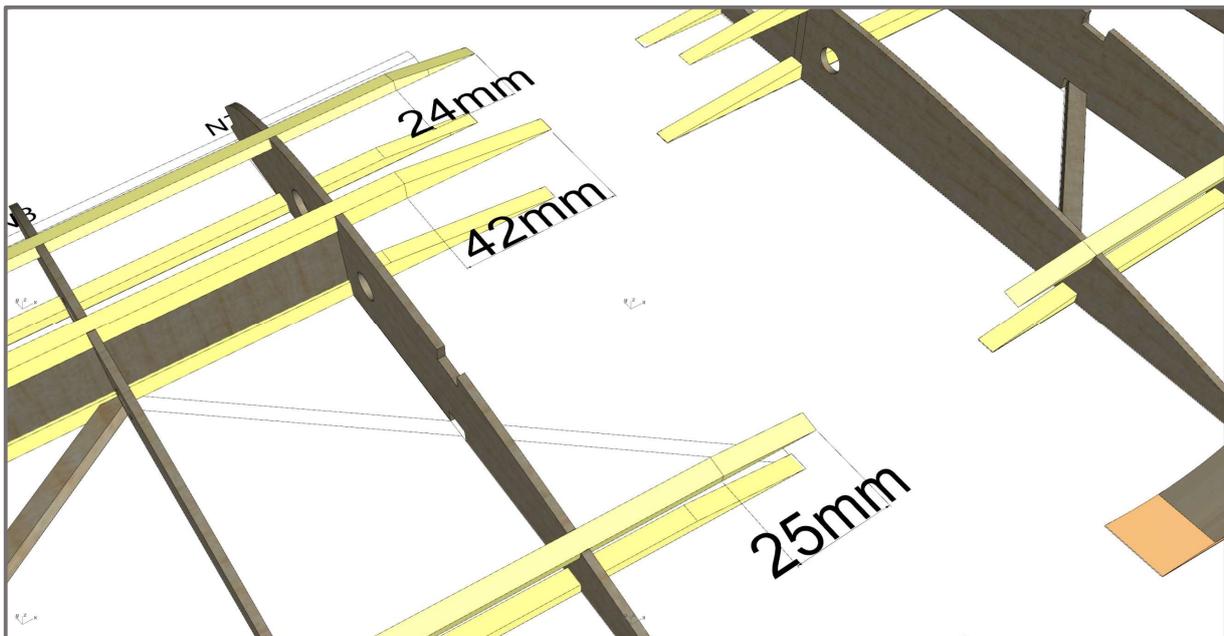


# Bannisperber

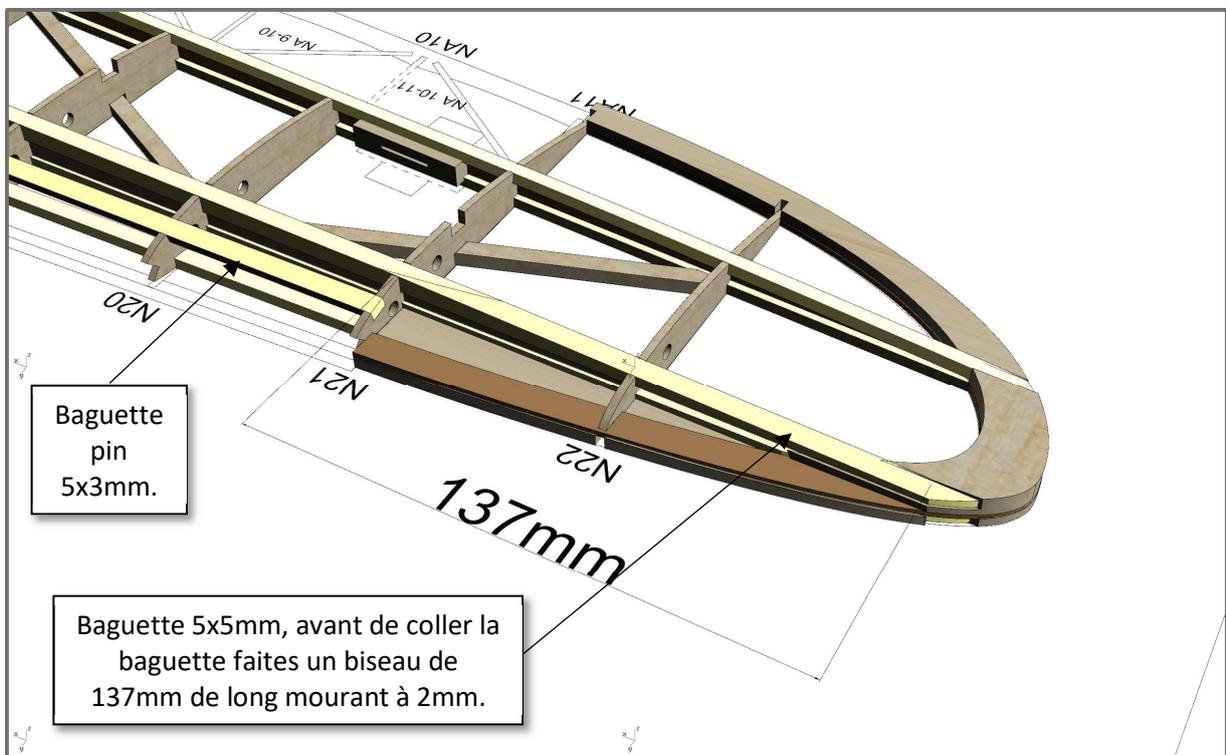
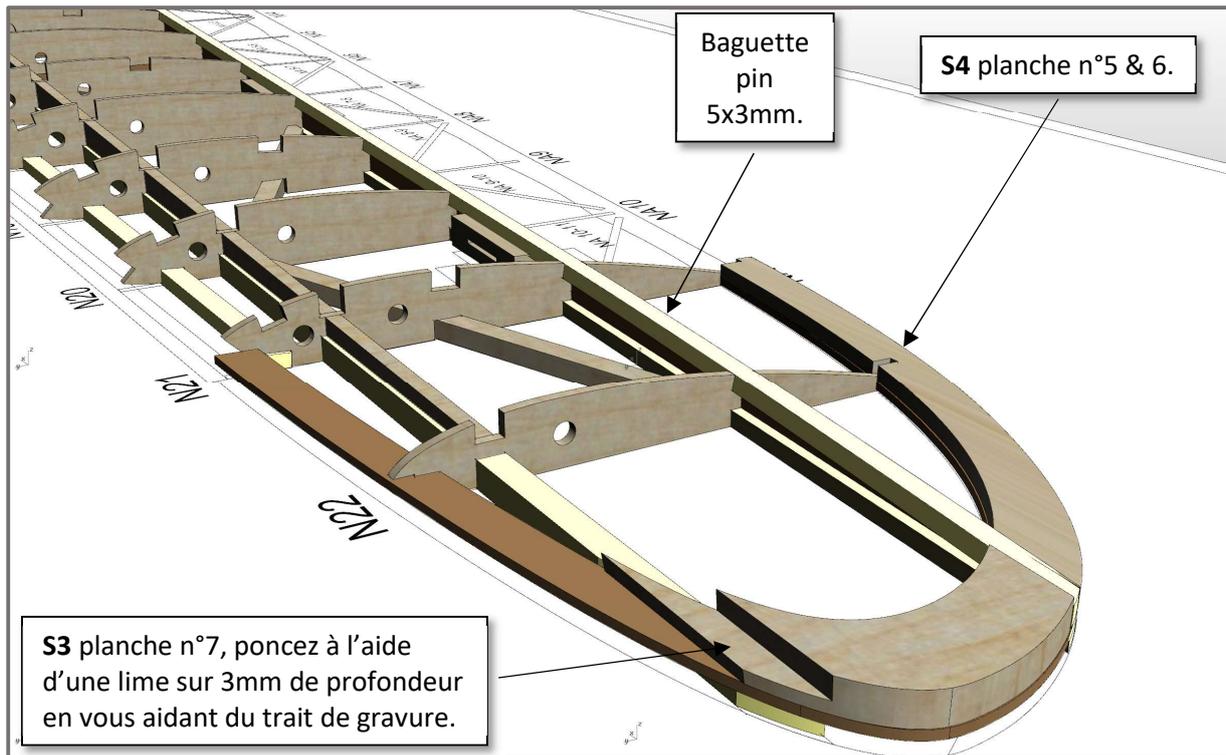
Bord d'attaque, baguette tilleul 5x5mm, poncé en forme à l'aide des gabarits G1 à G3 planche n°15.

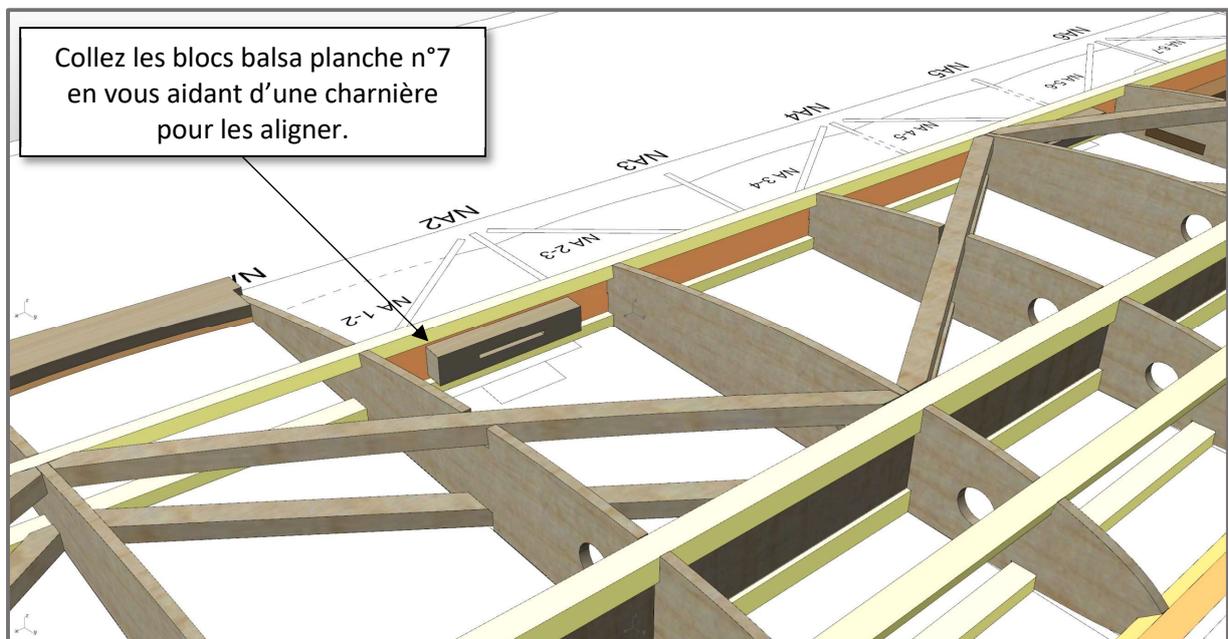
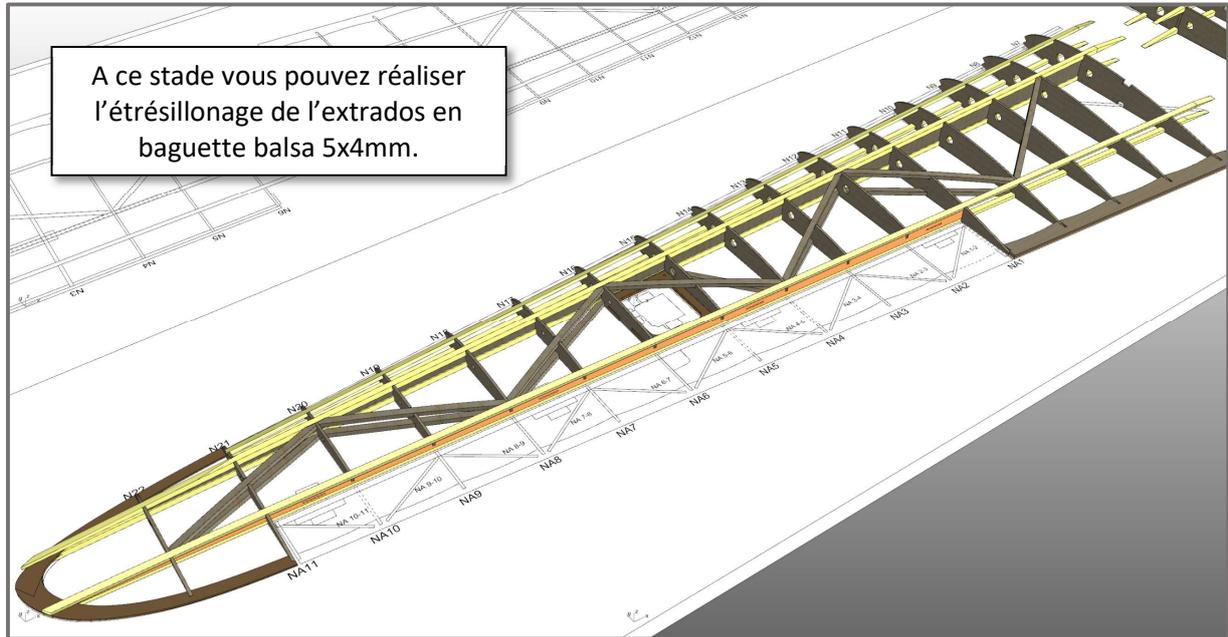


Réalisez les biseaux avant de coller les baguettes.

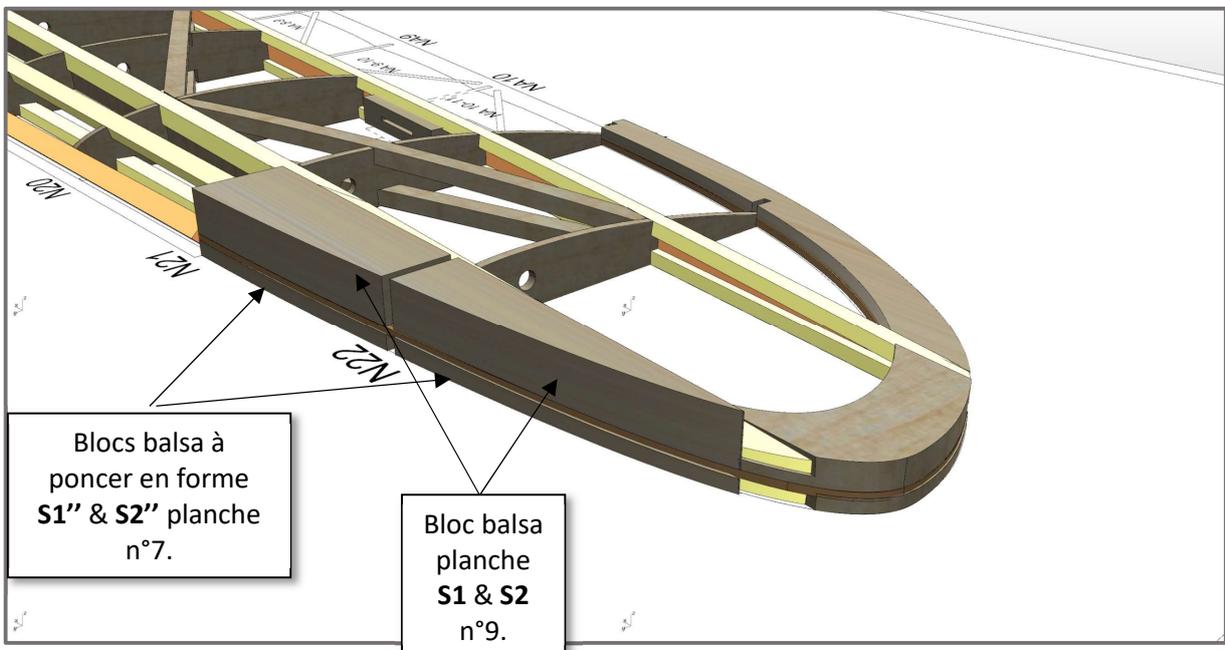
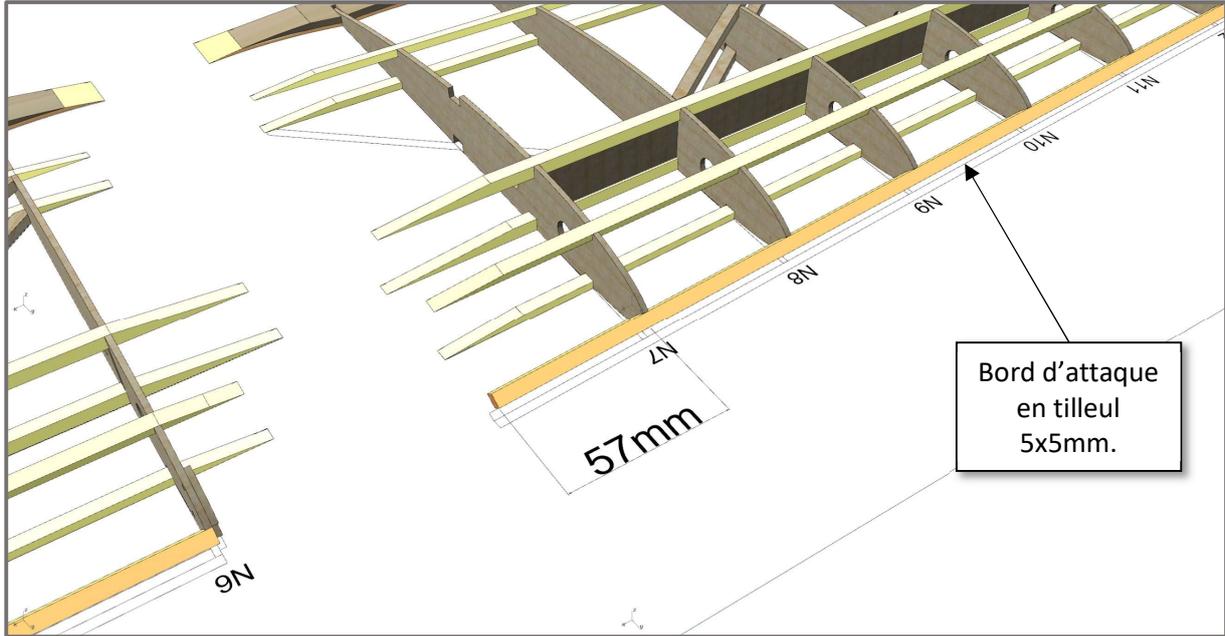


# Bannsperber

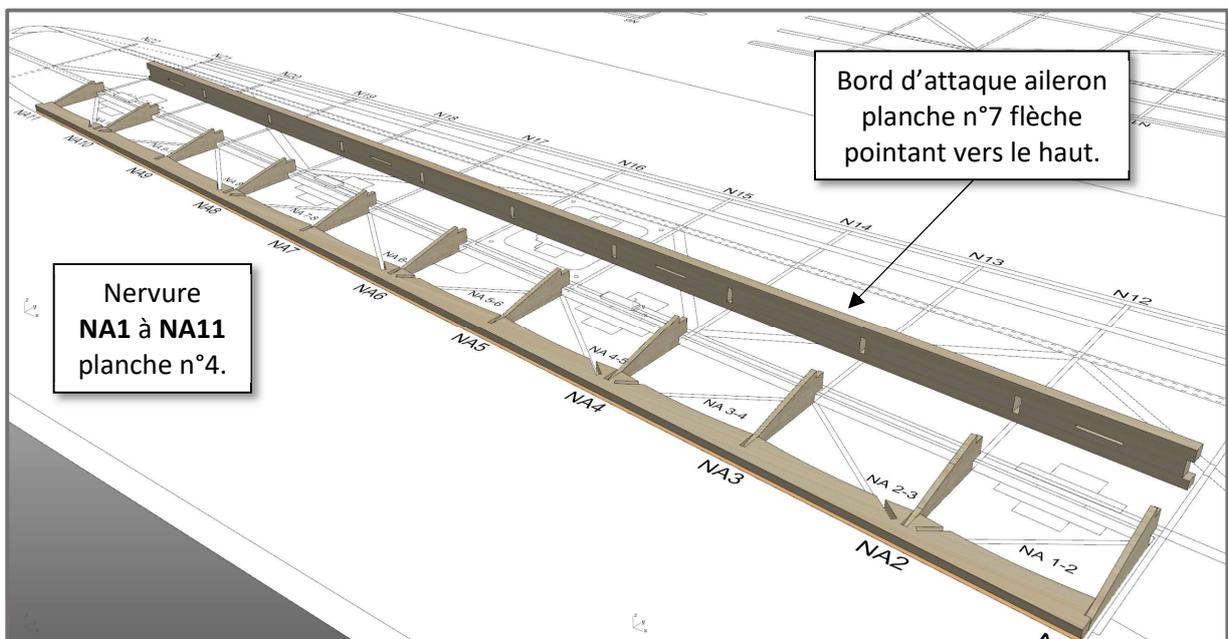
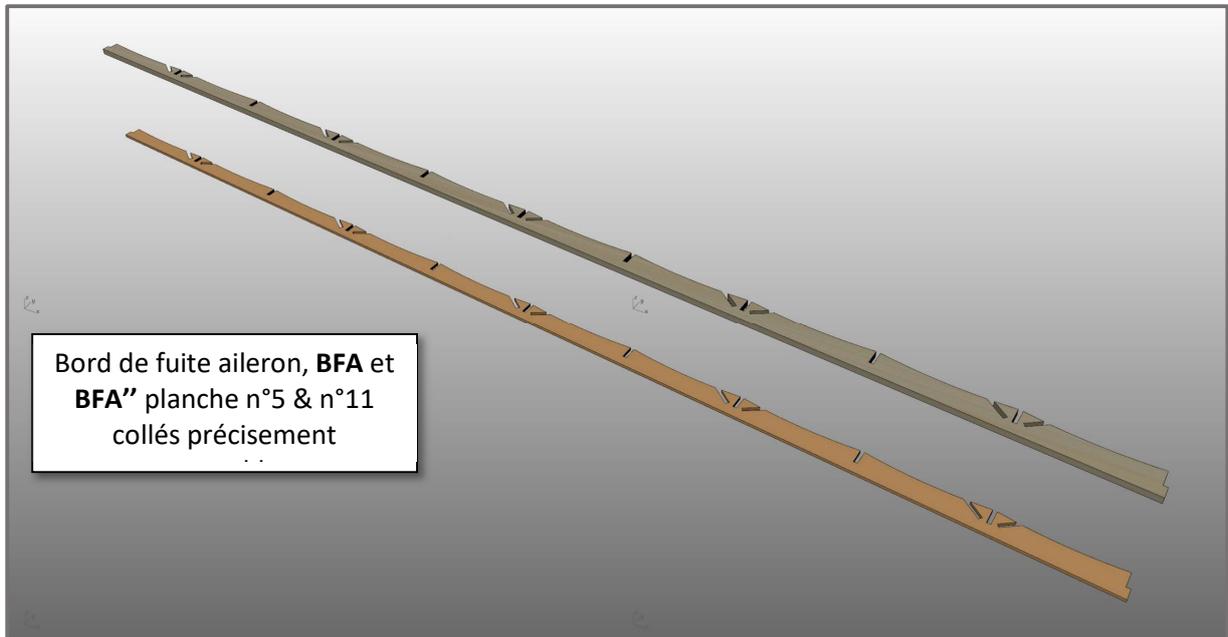




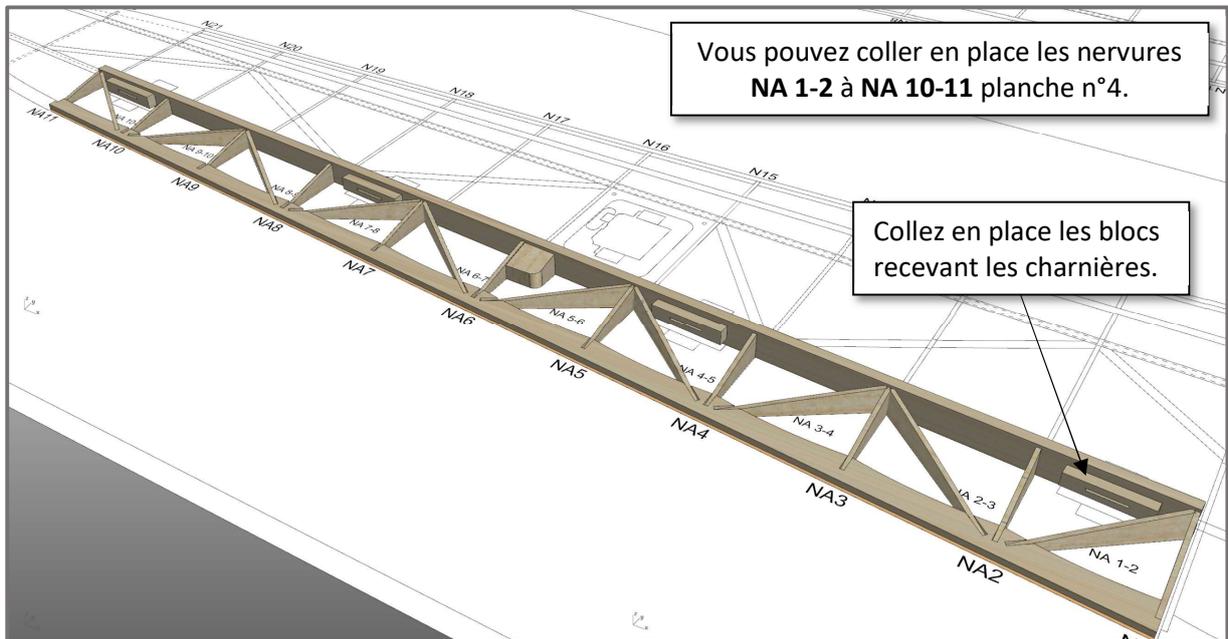
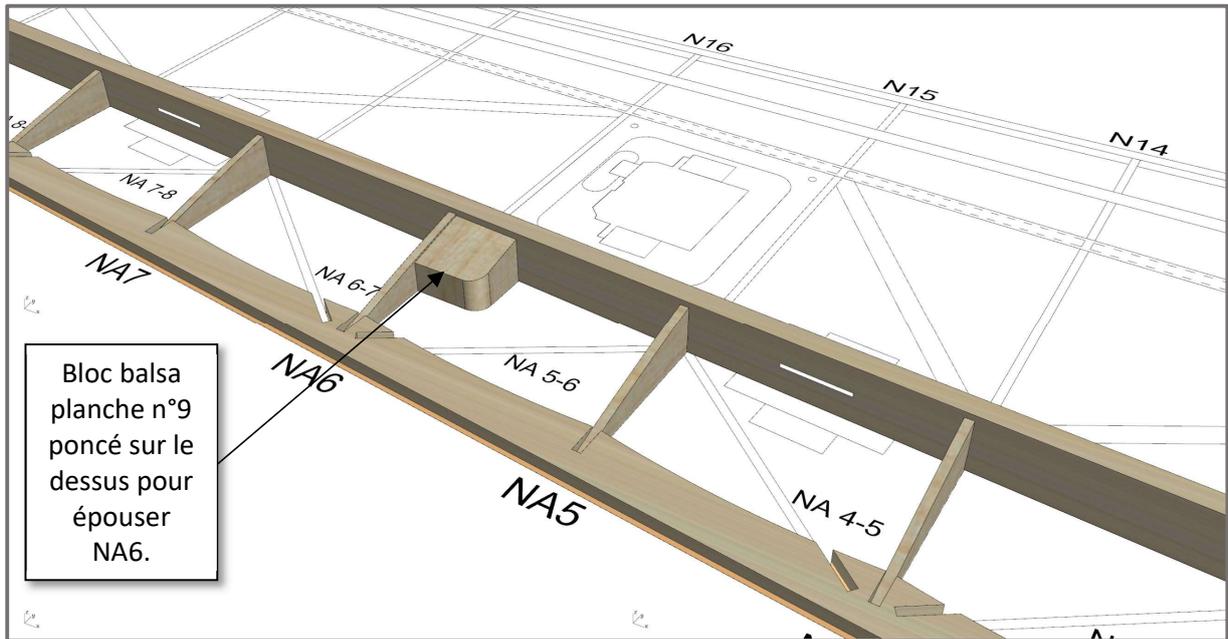
# Bannsperber



# Bannsperber

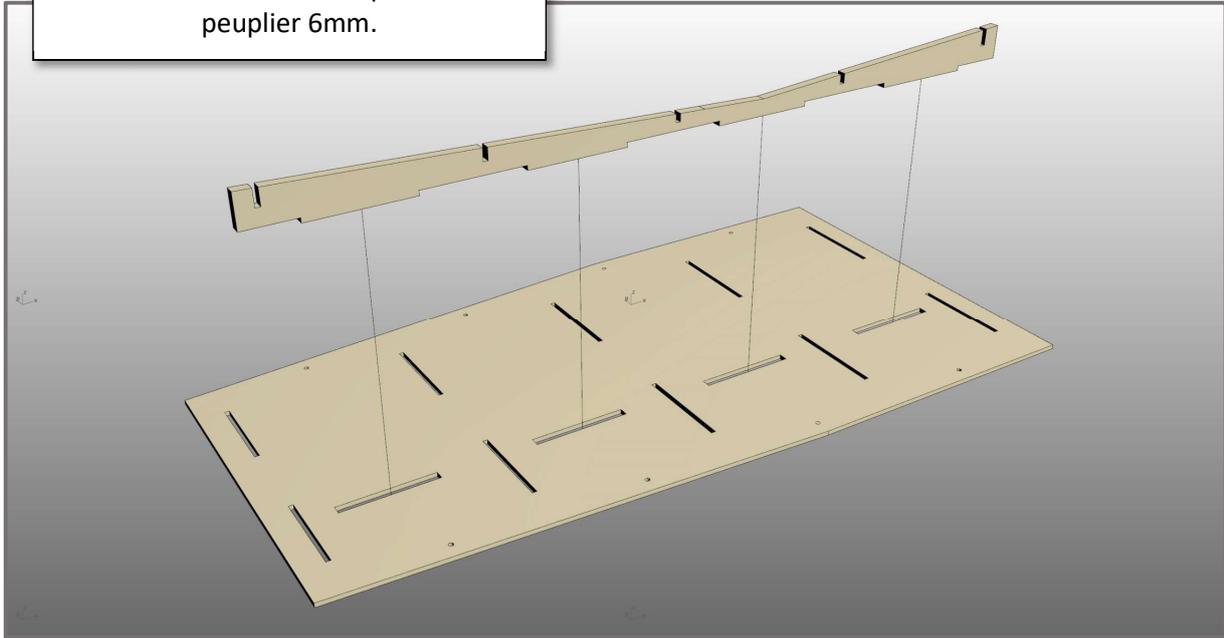


# Bannspërber

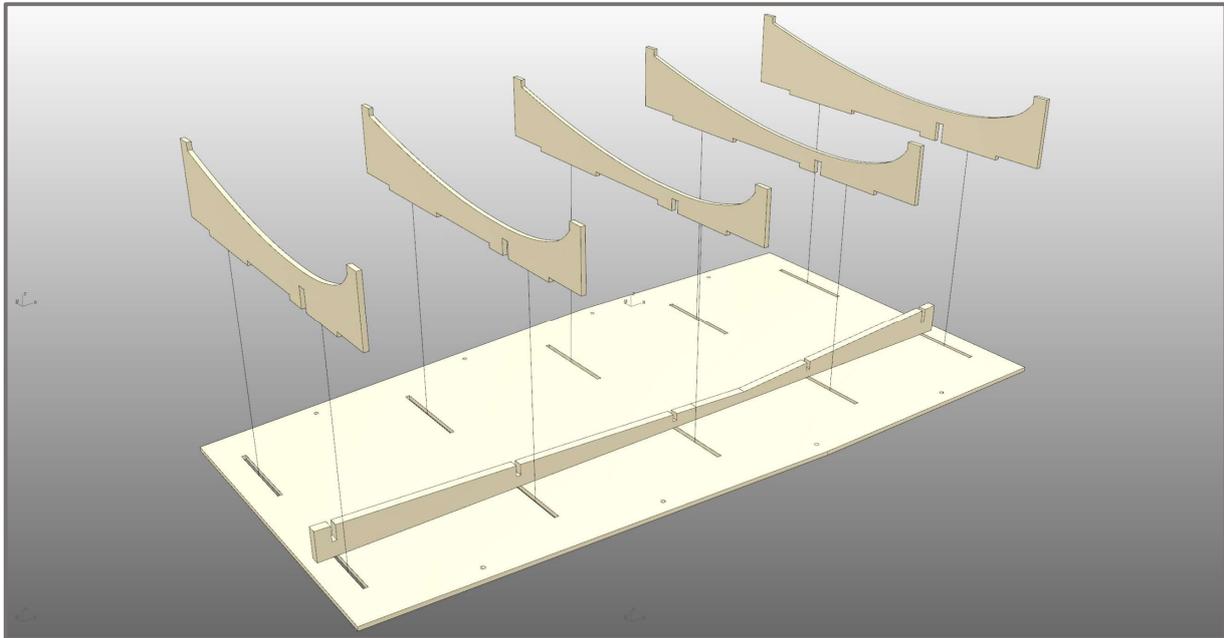


## Bannsperber

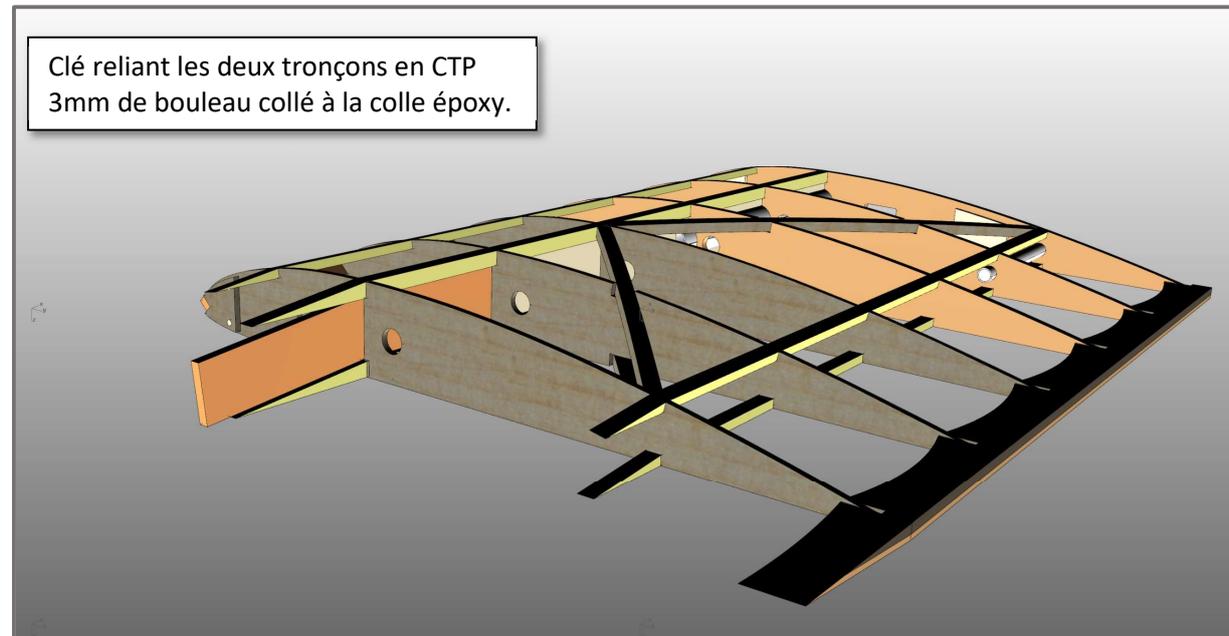
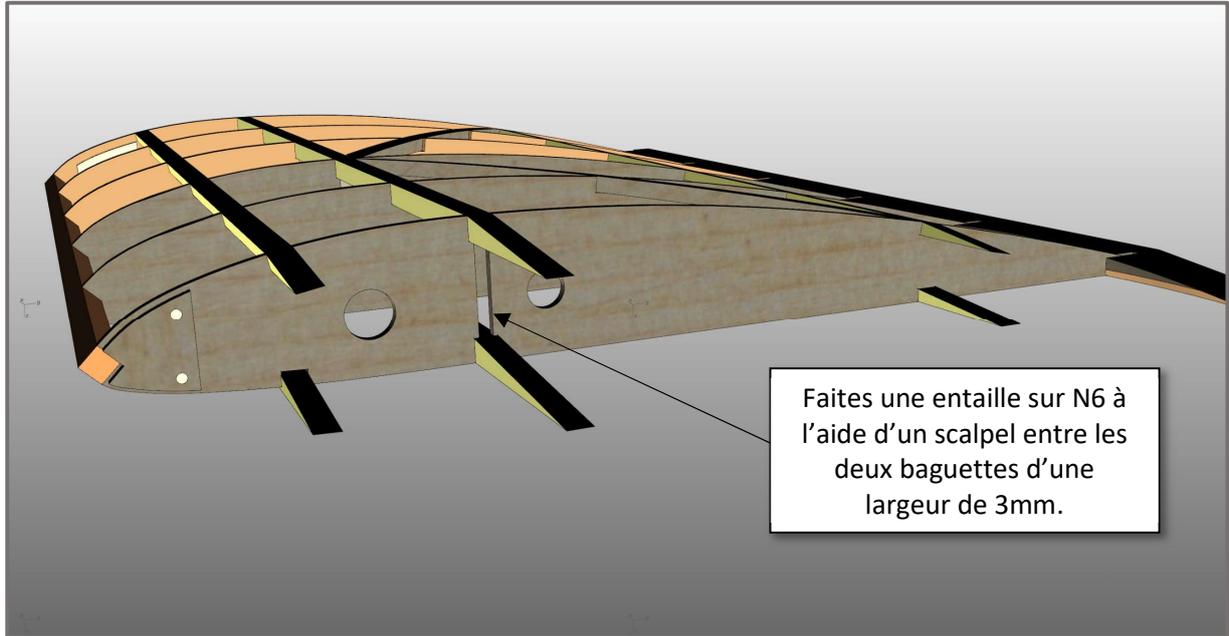
Chassis pour l'assemblage des ailes,  
encastrez sans la coller la pièce en CTP  
peuplier 6mm.



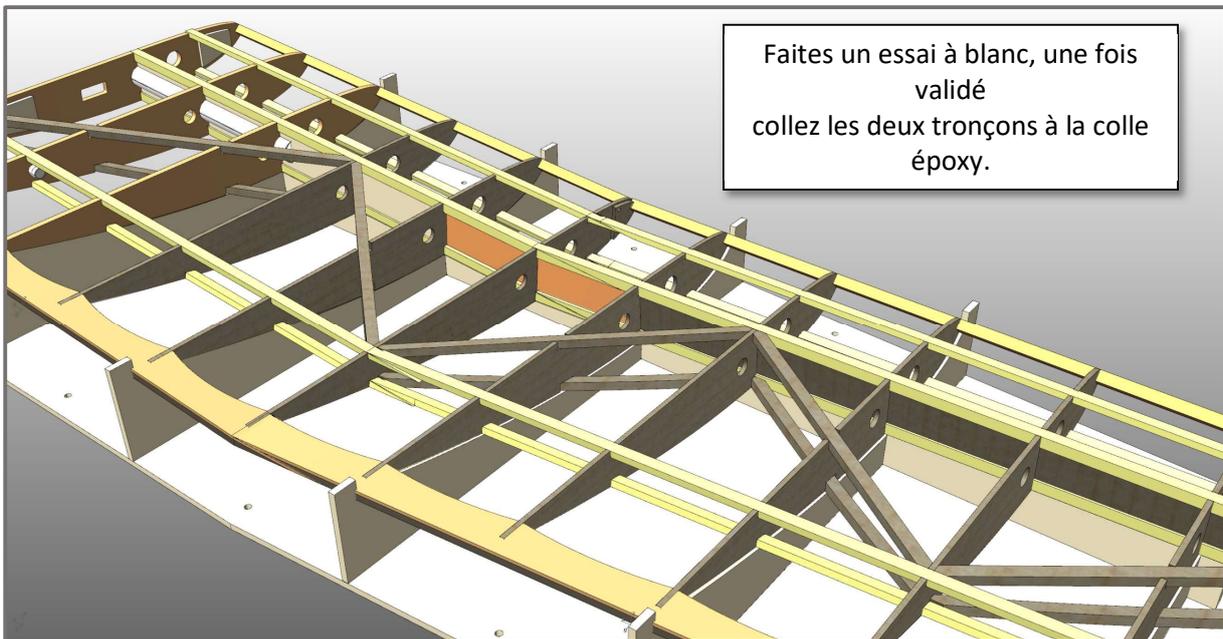
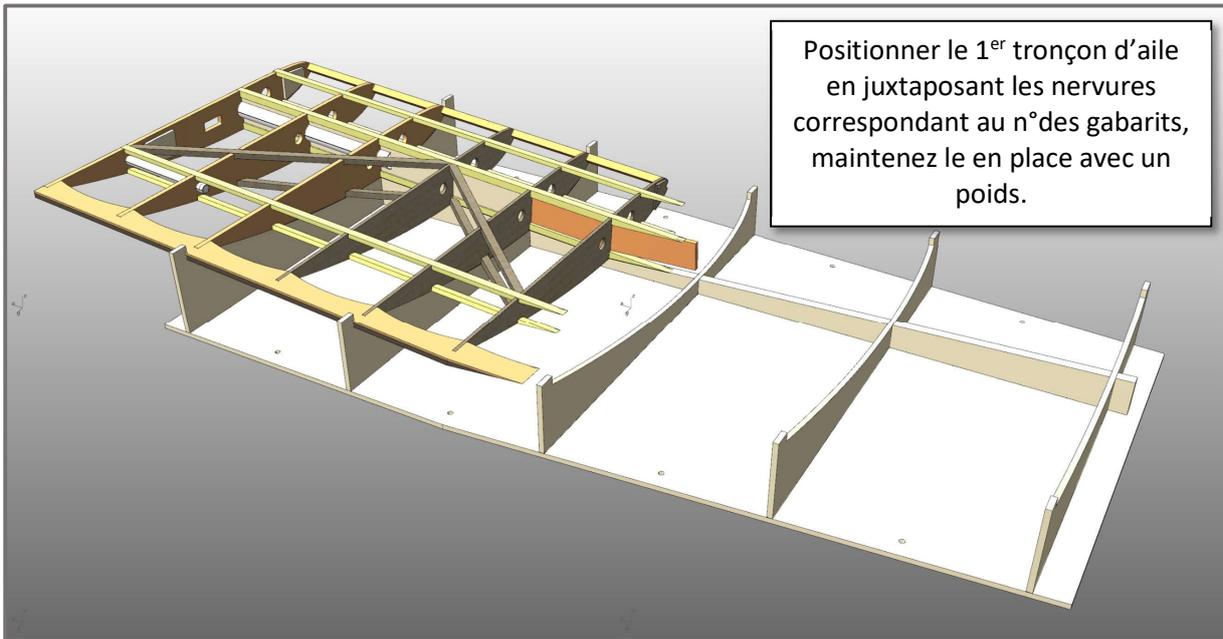
Encastrer les gabarits **GN5** à **GN11** planche n°17.



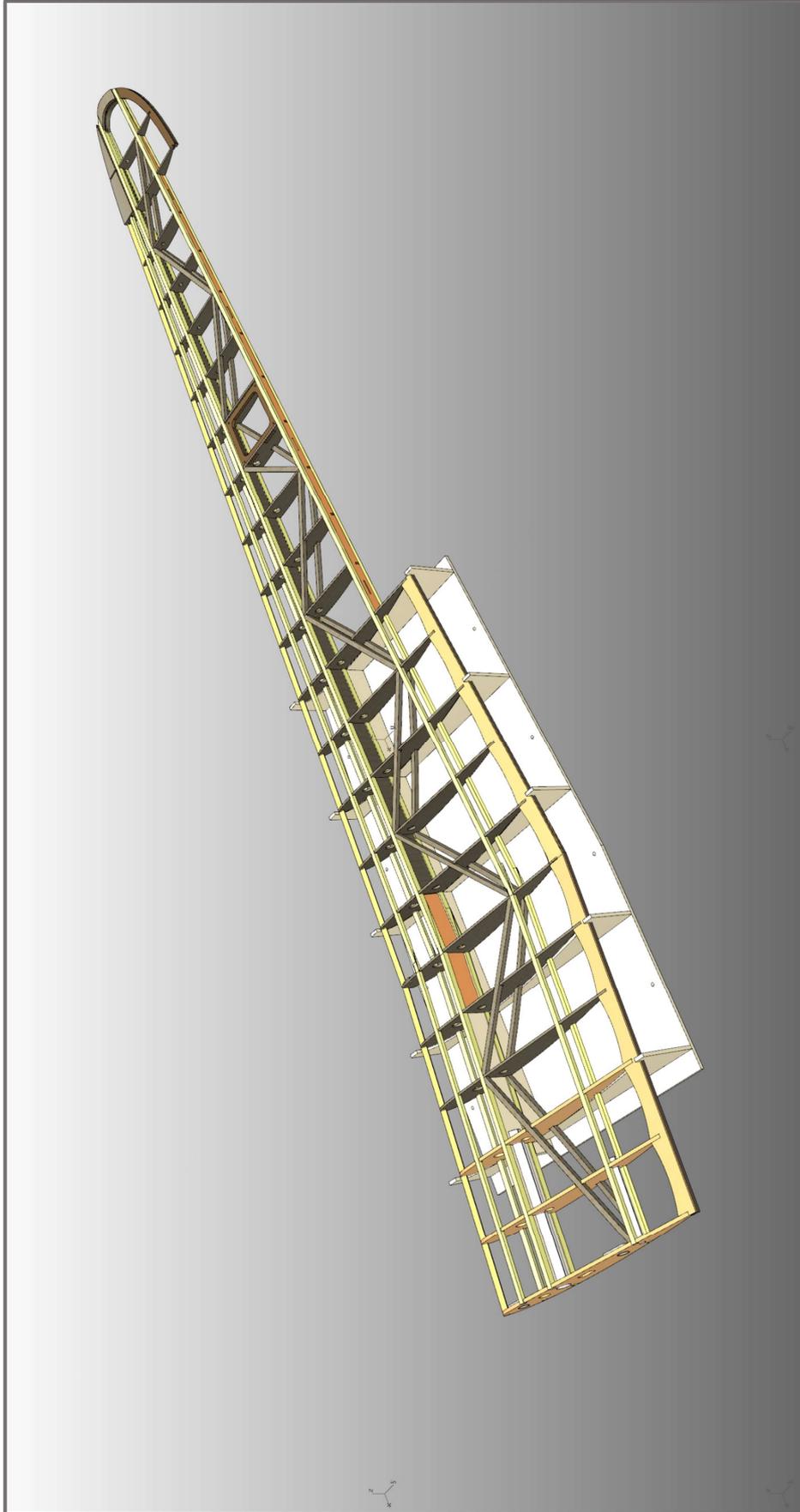
# Bannspërber



## Bannsperber

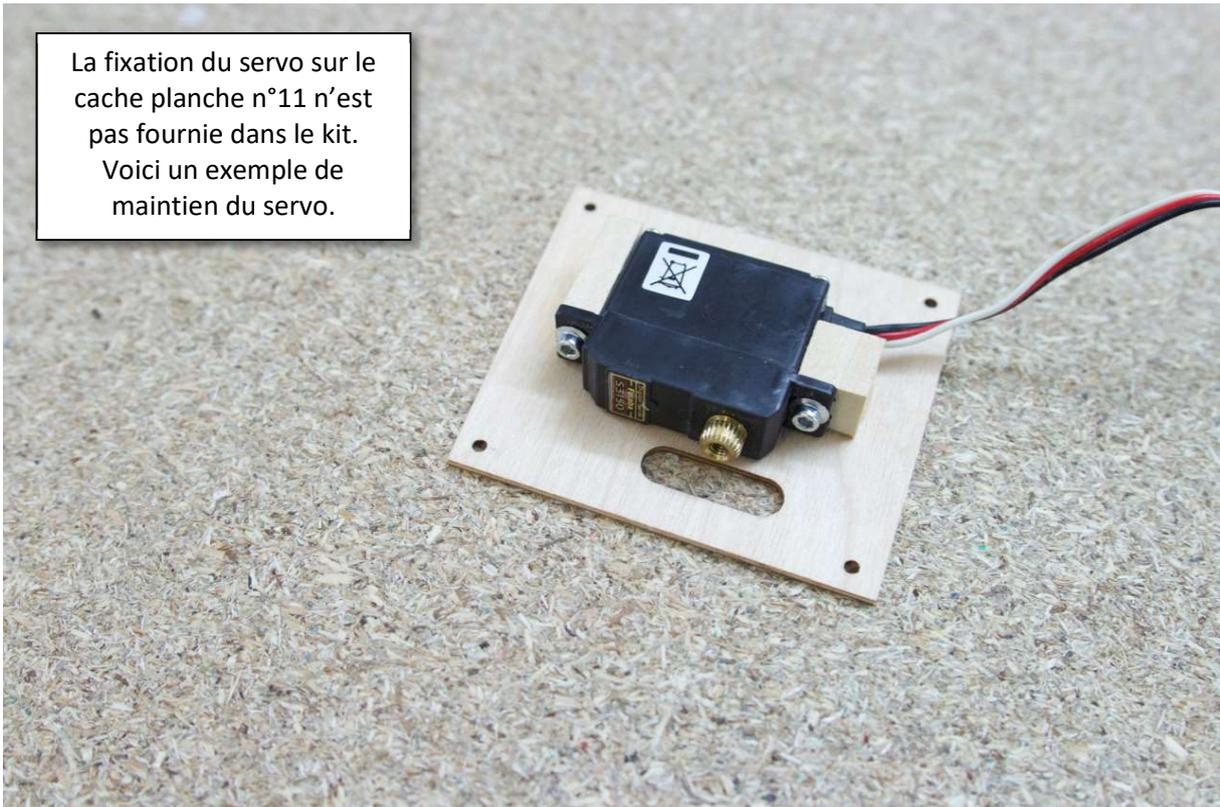


# Bannsperber



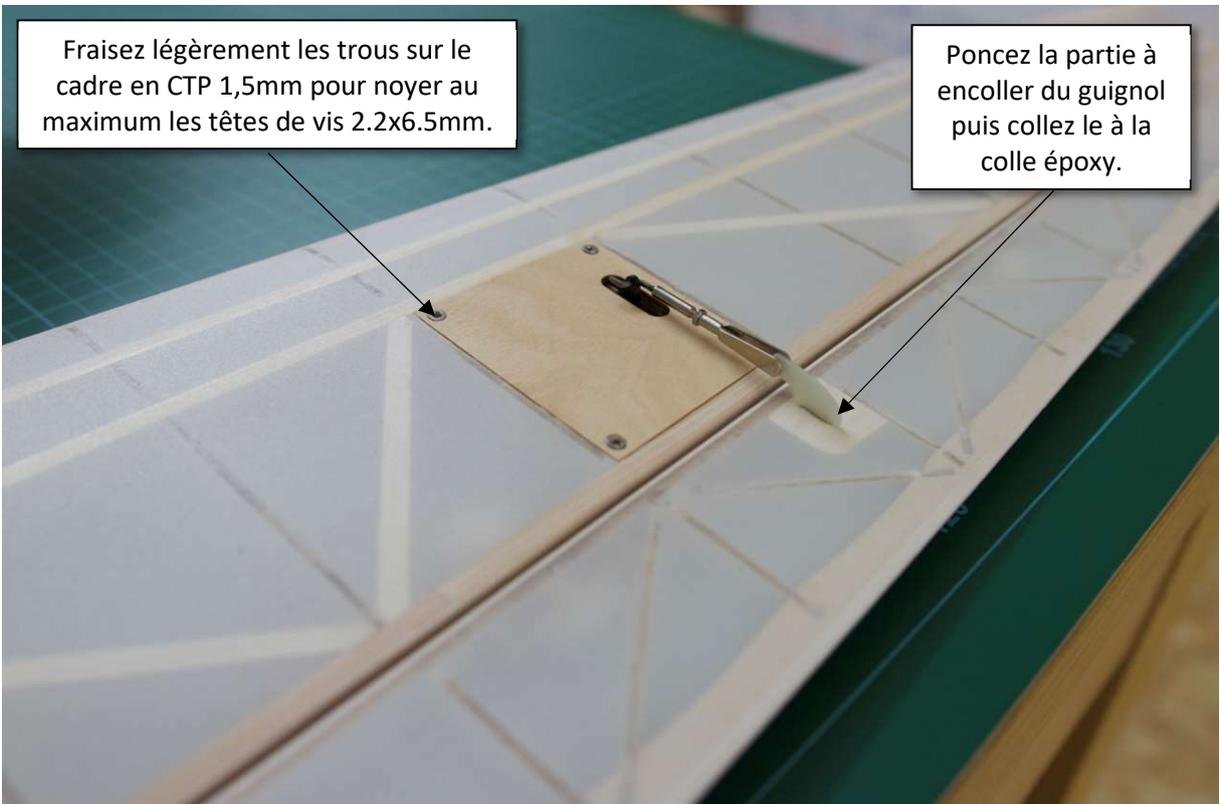
## Bannspërber

La fixation du servo sur le cache planche n°11 n'est pas fournie dans le kit. Voici un exemple de maintien du servo.



Fraisez légèrement les trous sur le cadre en CTP 1,5mm pour noyer au maximum les têtes de vis 2.2x6.5mm.

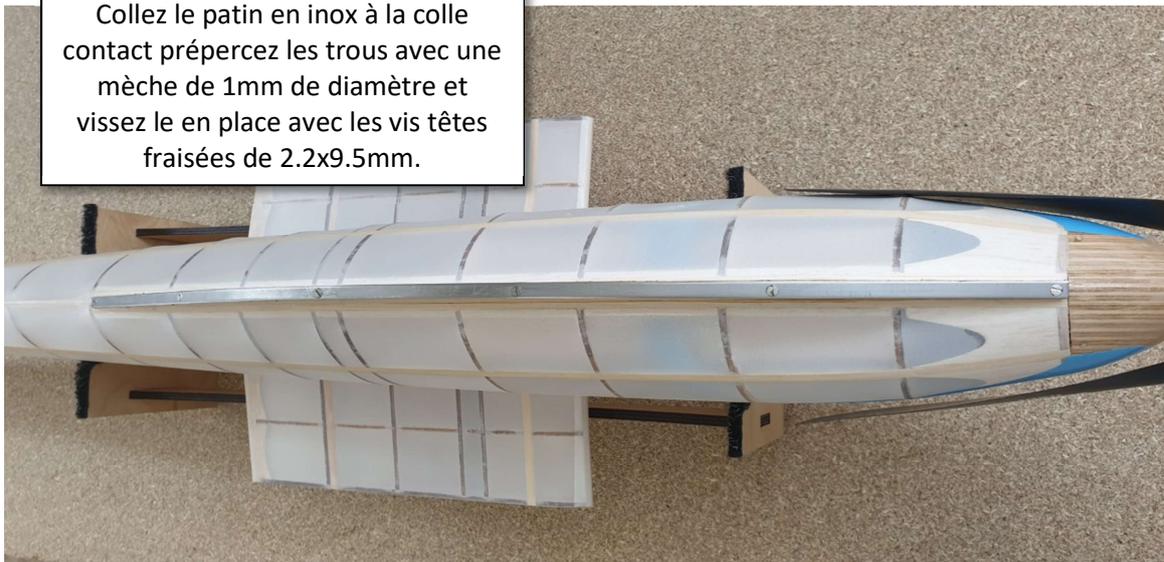
Poncez la partie à encoller du guignol puis collez le à la colle époxy.



## Bannsperber



Collez le patin en inox à la colle contact prépercez les trous avec une mèche de 1mm de diamètre et vissez le en place avec les vis têtes fraisées de 2.2x9.5mm.



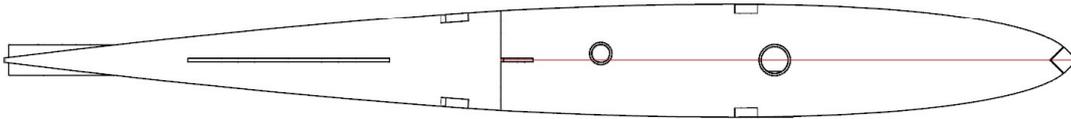
### Réglages

- Centre de gravité : 111mm du bord d'attaque à l'emplanture.  
Débattements ailerons : 15mm vers le haut, 8mm vers le bas.  
Débattements profondeur : 14mm vers le haut, 14 vers le bas.  
V longitudinal : -1° (Quand l'aile est calé à 0° le stab doit être à -1°,  
afinez le réglage en vol avec le trim de la profondeur)  
Pour ceux qui ne possède pas d'incidencemètre voir page ci-Dessous.

## Bannsperber

Emplanture de stab, faites attention à bien respecter le sens du stab lors du calage, axe de commande légèrement décalé vers le haut.

Extrados



Intrados

Calage du stab à l'aide d'un réglet

