



# HRP TOP WING ASSEMBLY INSTRUCTIONS

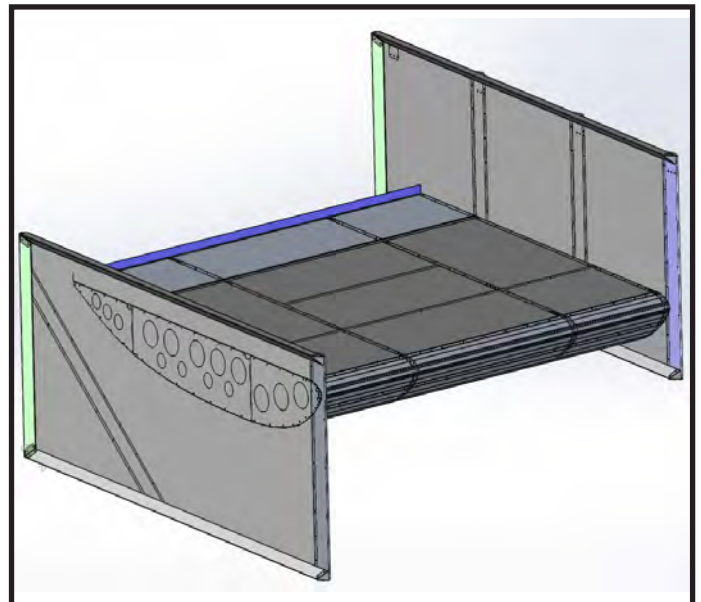
## FOR

# FLT TOP WING

**MOST USED SPRINTCAR WING IN THE WORLD!**



*Wind Tunnel Tested*  
*Cad Designed and Engineered*  
*Tested with Air Flow Simulations*  
*CNC Processed for Accuracy*



Please read these directions thoroughly and check for all parts before starting.

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Note: If a Specialty Side Board has been purchased, then read through the General Side Board Assembly Guides on pages 13 - 23 and assemble the specialty board similarly.

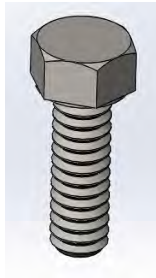
## FASTENER PARTS LIST



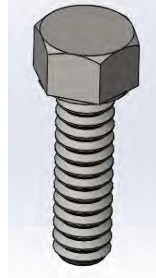
3/16" Rivets  
x200



1/8" Rivets  
x1000



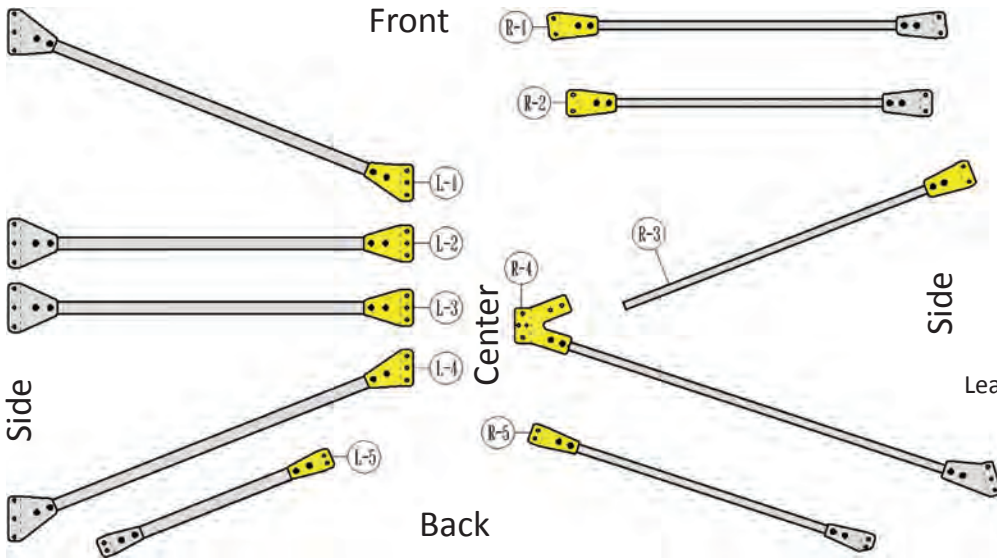
1/4-20 x5/8  
Bolt x8



1/4-20 x3/4  
Bolt x4



1/4-20  
Bolt x12



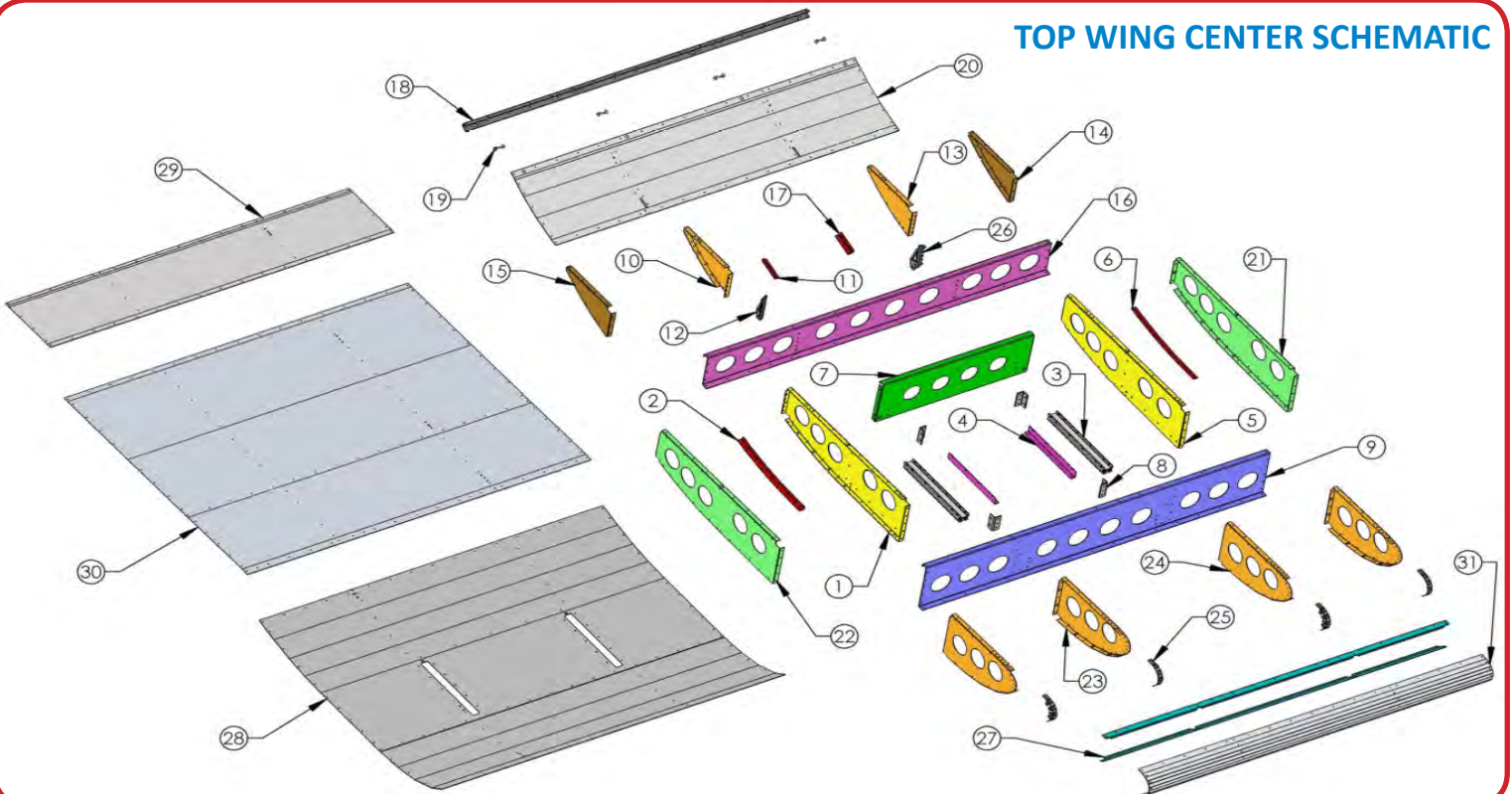
## BRACE KIT SCHEMATIC

Brace #  
Left or Right  
Wing Style

4 L SKD  
2.0

Lead of board or style  
of board

Yellow end should be labeled



## Side Board Type:

RH: \_\_\_\_\_ LH: \_\_\_\_\_

### TOP WING CENTER PARTS LIST

SKU #	HRP #	PART DESCRIPTION	QUA	CHECK
1	FLT5003-RH	RH Inner Center Profile	1	
2	FLT5022-RH	RH Center Profile Strip	1	
3	VT5016	Runner	2	
4	VFT5015	Center Skin Support	2	
5	FLT5003-LH	LH Inner Center Profile	1	
6	FLT5022-LH	LH Center Profile Strip	1	
7	FLT5008	Middle Cross Rib	1	
8	VFT5023	Runner Supports	4	
9	FLT5009	Front Cross Rib	1	
10	FLT5005-RH	RH Inner Rear Profile	1	
11	FLT5013-RH	RH Back Brace	1	
12	VFT5014-RH	RH Rear Wing Mount	1	
13	FLT5005-LH	LH Inner Rear Profile	1	
14	FLT5004-LH	LH Outer Rear Profile	1	
15	FLT5004-RH	RH Outer Rear Profile	1	
16	FLT5007	Rear Cross Rib	1	
17	FLT5013-LH	LH Back Brace	1	
18	FLT5006	Back Edge	1	
19	HRP0301	D-ZEUS Spring	4	
20	FLT5020	Bottom Rear Skin	1	
21	FLT5002-LH	LH Outer Center Profile	1	
22	FLT5002-RH	RH Outer Center Profile	1	
23	FLT5001-LH	LH Nose Profile	2	
24	FLT5001-RH	RH Nose Profile	2	
25	FLT5010	Nose Wrap	4	
26	VFT5014-LH	LH Rear Wing Mount	1	
27	FLT5011	Nose Backer	2	
28	FLT5019	Bottom Skin	1	
29	FLT5017	Top Rear Skin	1	
30	FLT5018	Top Skin	1	
31	FLT5012	Nose Cap	1	

### BRACE PARTS LIST

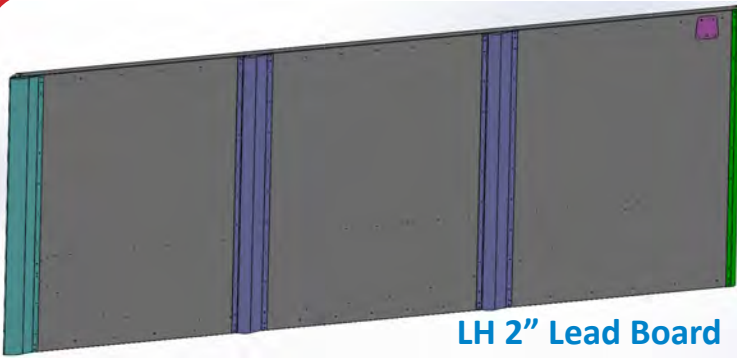
SKU #	HRP #	PART DESCRIPTION	CHECK
L-1	FLT5110	LH #1 Brace	
L-2	FLT5111	LH #2 Brace	
L-3	FLT5112	LH #3 Brace	
L-4	FLT5113	LH #4 Brace	
L-5	FLT5114	LH #5 Brace	
R-1	FLT5115	RH #1 Brace	
R-2	FLT5116	RH #2 Brace	
R-3	FLT5117	RH #3 Brace	
R-4	FLT5118	RH #4 Brace	
R-5	FLT5119	RH #5 Brace	

### HARDWARE PARTS LIST

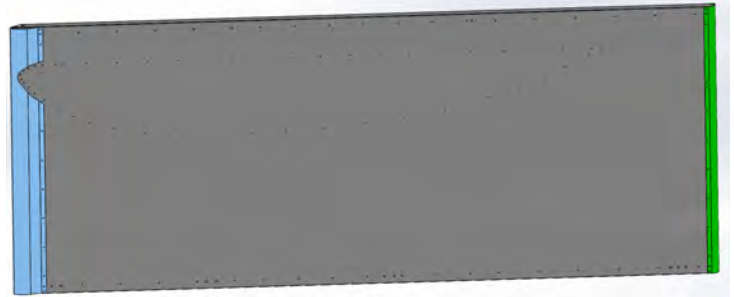
HRP #	PART DESCRIPTION	QUA	CHECK
AD41-43BS	1/8" Rivet	1000	
AD62-64BS	3/16" Rivet	200	
HCS 1/4-20 5/8-Z	Hex Head Bolt 1/4-20 5/8	8	
HCS 1/4-20 3/4-Z	Hex Head Bolt 1/4-20 3/4	4	
NYLOCK 25-20_Zic	Nylock Nut 1/4 x 20	12	
HRP0310	D-ZEUS Button	4	
VFT5021	Entry Plate	2	
HRP8811- HD	Easy Glide Post	2	
HRP9003	8" Oval Sticker	2	
HRP9010	15" Oval Sticker	1	



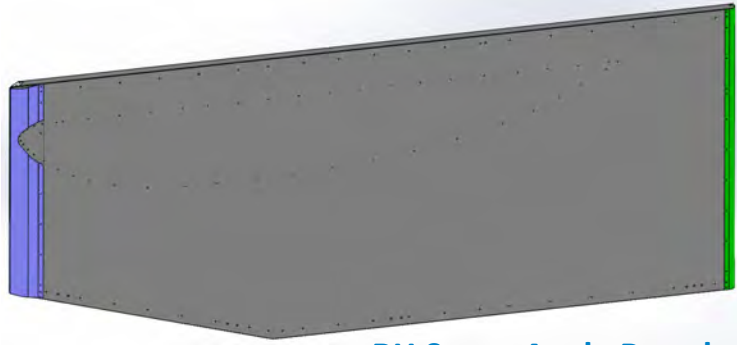
## COMMON SIDE BOARDS



LH 2" Lead Board



RH Super Board



RH Super Angle Board



## PRE ASSEMBLY PARTS CHECK

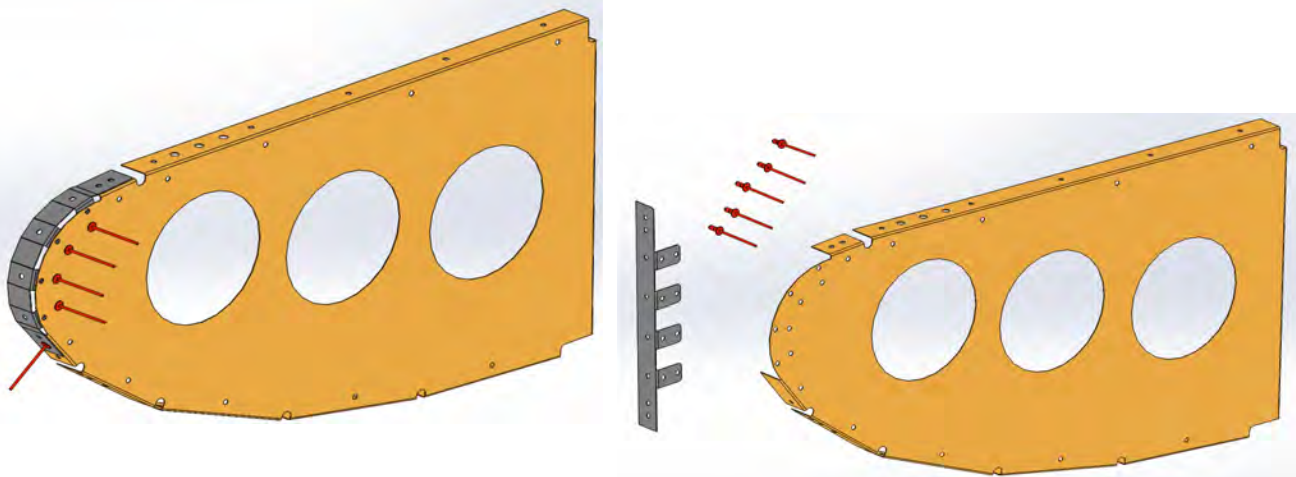
Verify that all quantities of parts are included by first checking them off of the checklist on page 4




## TOOLS NEEDED:

- Rivet Gun (1/8" & 3/16")
- Drill (1/8" & 3/16" Bits)
- 7/16" open Wrench
- 7/16" Socket Ratchet
- Hammer
- Pin Punch
- Large Clean Work Area

## STEP 1

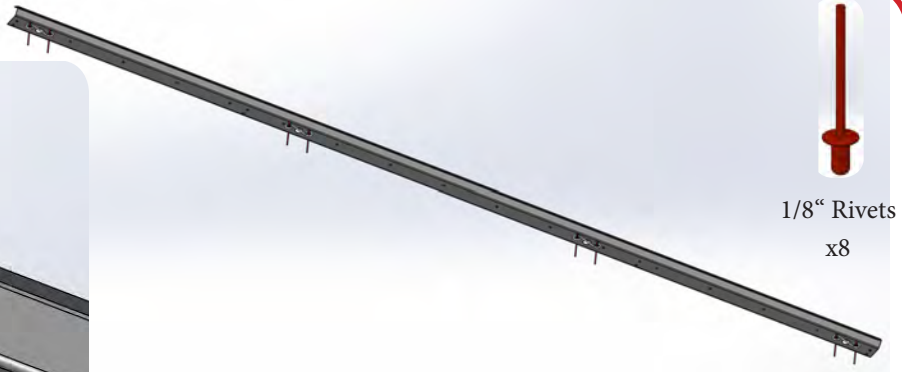
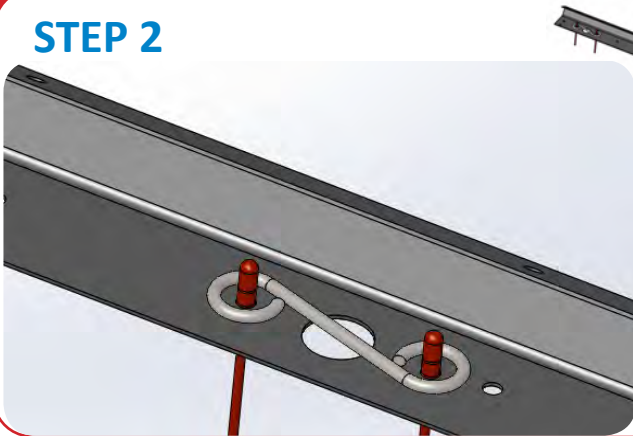


  
1/8" Rivets  
x20

Rivet the Nose Wrap (25) to the Nose Profile (23, 24)

Repeat: 2x LH  
2x RH

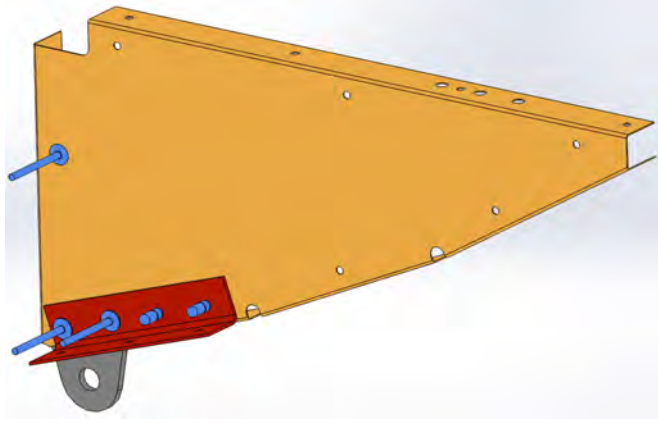
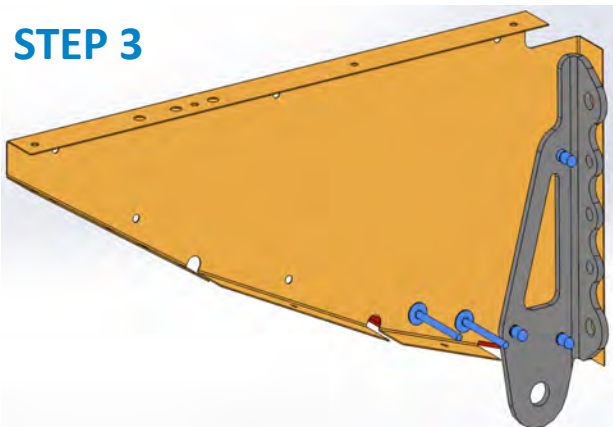
## STEP 2



  
1/8" Rivets  
x8

Rivet 4x D-ZEUS Springs (19) onto the Back Edge (18).

## STEP 3

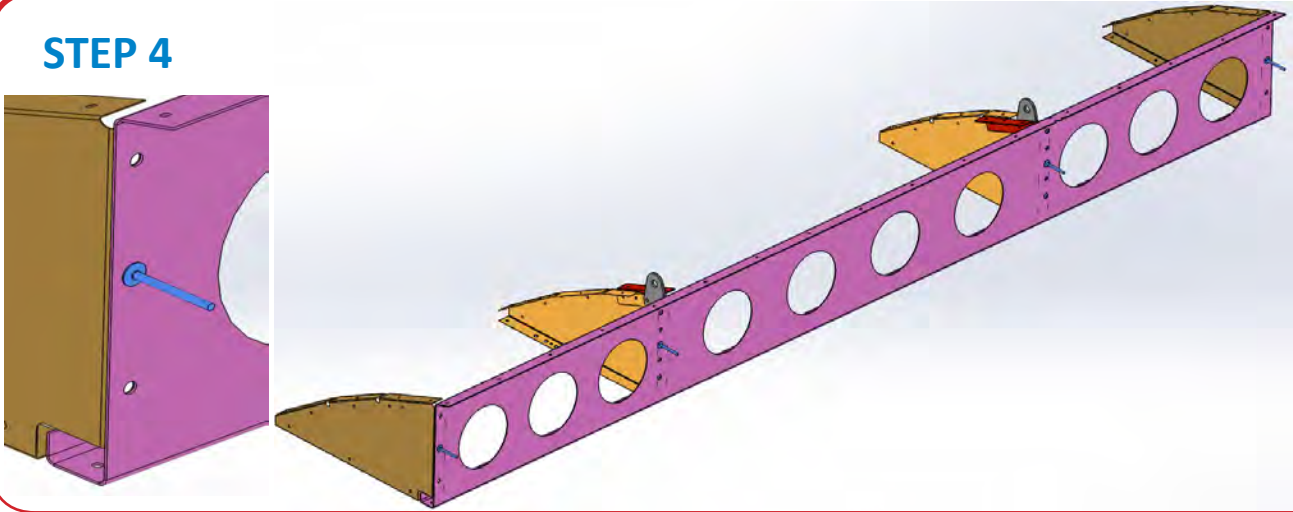


  
3/16" Rivets  
x10

Rivet Rear Wing Mount (12, 26) and Back Brace (11, 17) onto the Inner Rear Profile (10, 13) Repeat: 1x LH  
1x RH



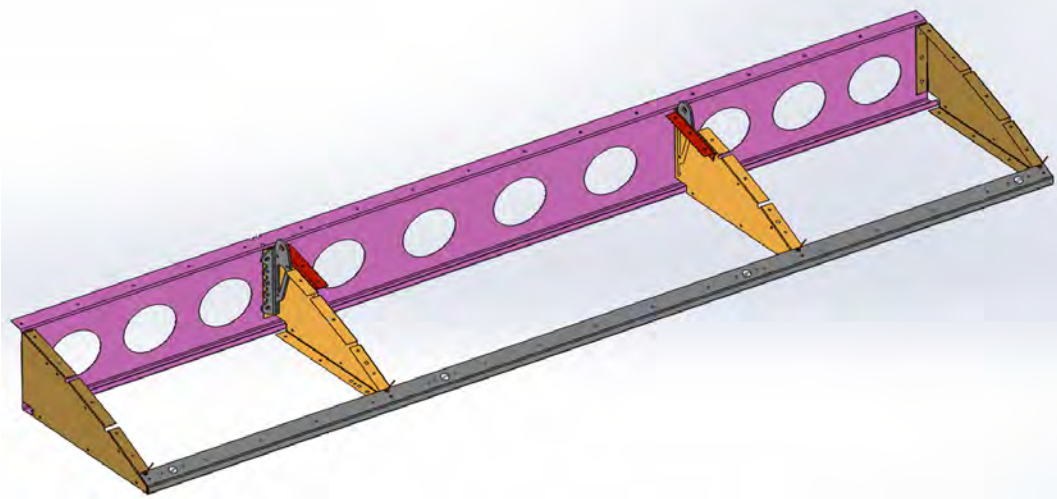
## STEP 4



  
3/16" Rivets  
x4

Attach Step 3 assemblies and Outer Rear Profiles (14, 15) to the Rear Cross Rib (16)

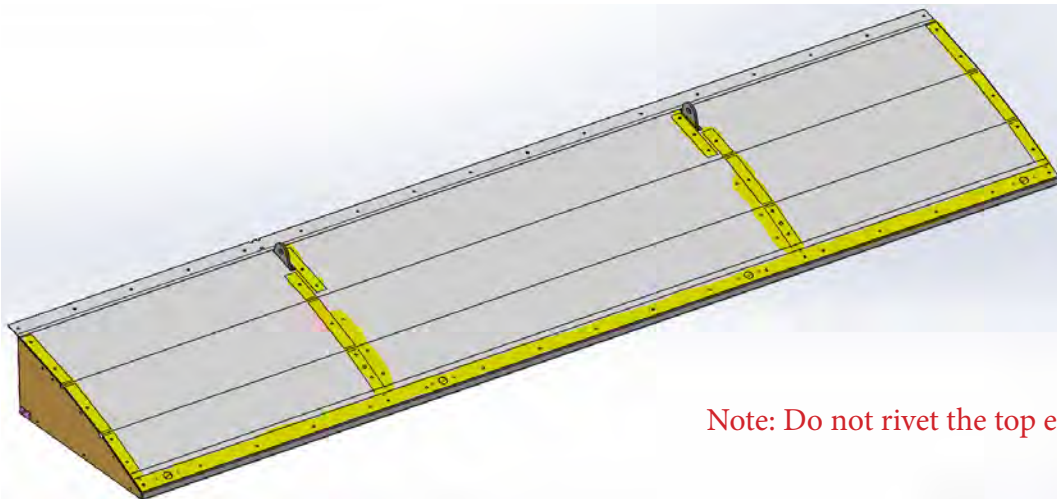
## STEP 5



  
1/8" Rivets  
x4

Attach Step 2 to Step 4

## STEP 6

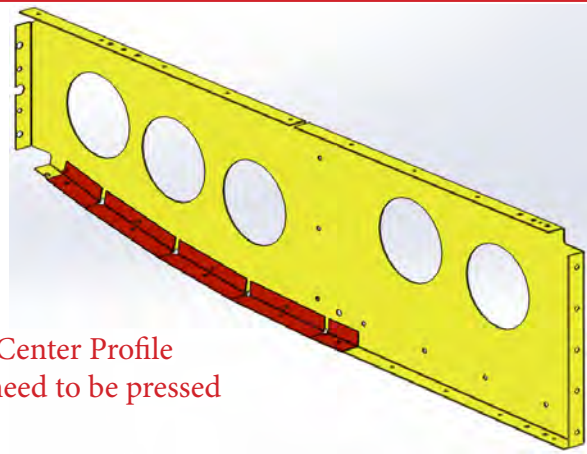
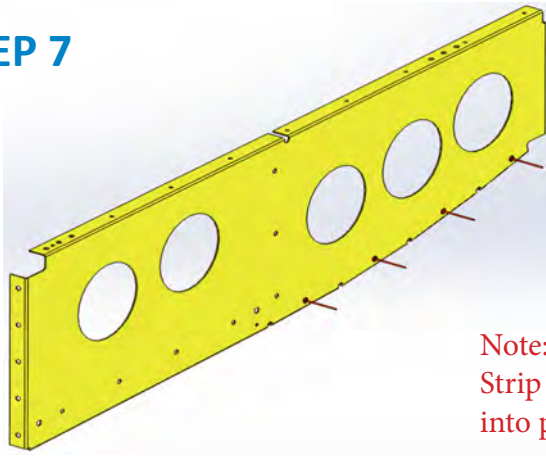


  
1/8" Rivets  
x50

Note: Do not rivet the top edge

Attach the Bottom Rear Skin (20) onto Step 5 by riveting the 1/8" holes highlighted

## STEP 7

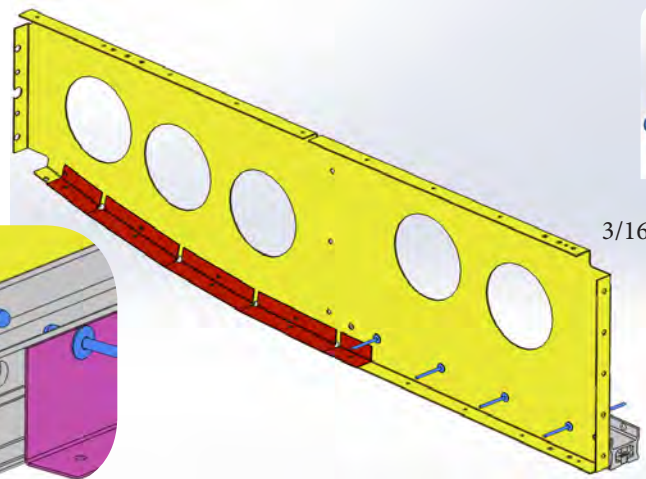
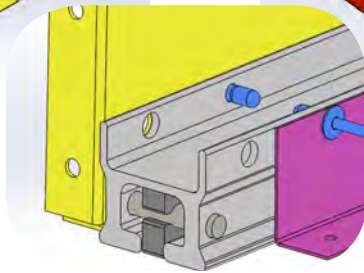
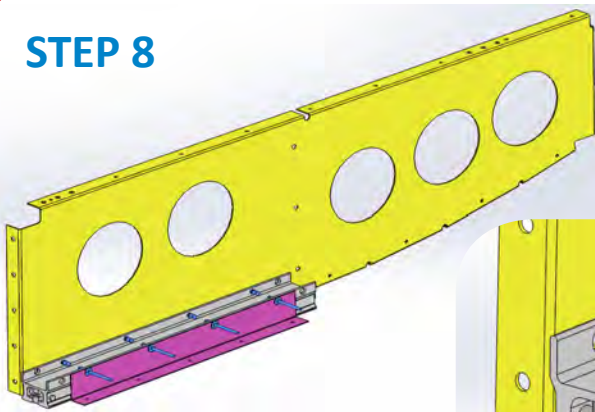


Note: The Center Profile Strip will need to be pressed into place

Rivet the Center Profile Strip (2, 6) onto the Inner Center Profile (1, 5)

Repeat: 1x LH  
1x RH

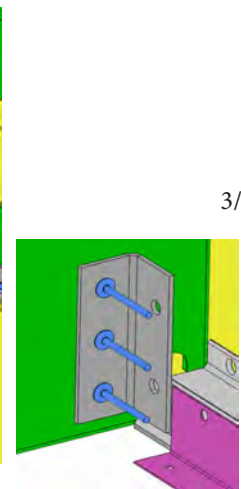
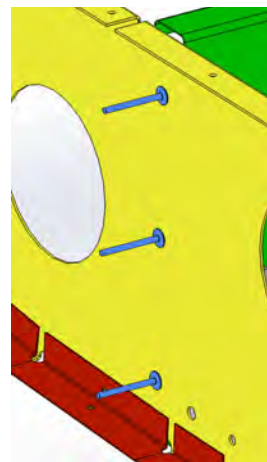
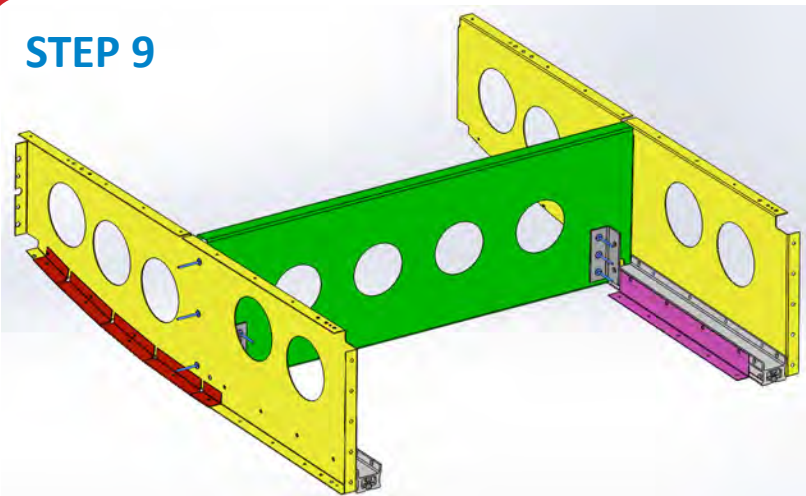
## STEP 8



Rivet the Center Skin Support (4) to the Runner (3), and lastly, rivet the Runner Assembly to Step 7

Repeat: 1x LH  
1x RH

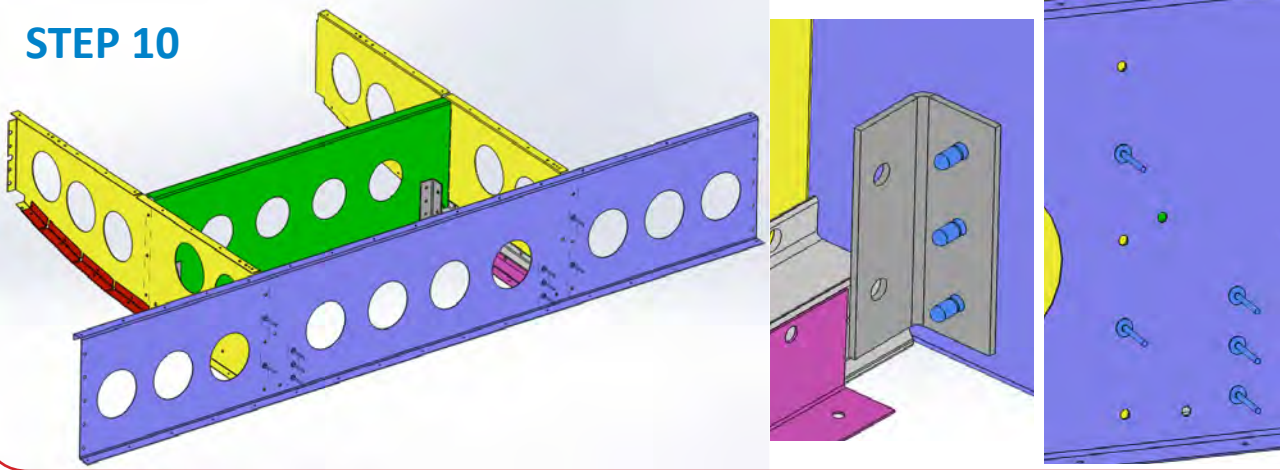
## STEP 9



Rivet Step 8 to the Middle Cross Rib (7), then rivet on x2 Runner Supports (8) to the Middle Cross Rib (7)



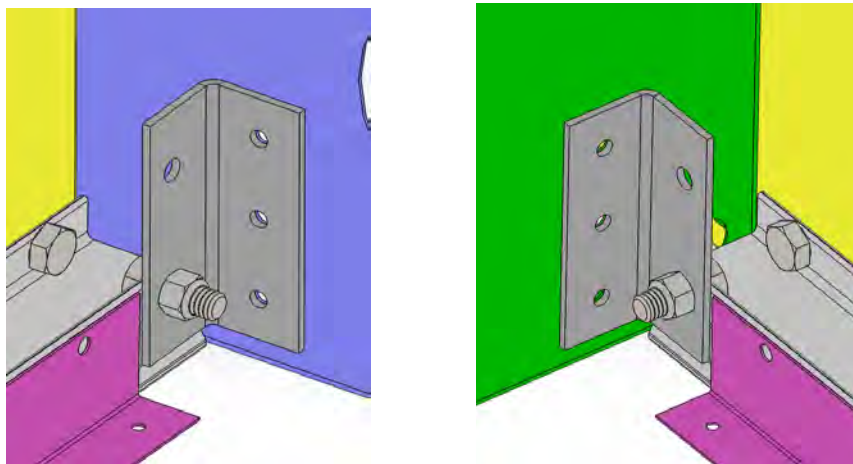
### STEP 10



3/16" Rivets  
x10

Rivet the Front Cross Rib (9) to Step 9, then rivet on x2 Runner Supports (8) to the Front Cross Rib (9)

### STEP 11



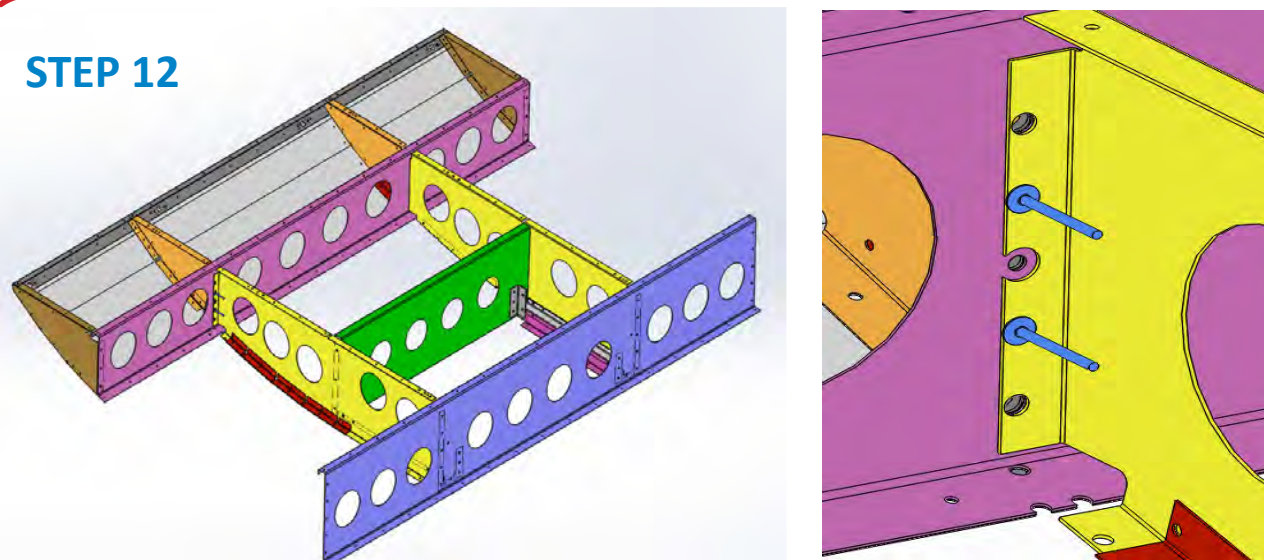
1/4-20  
Lock Nut  
x8



1/4-20  
x5/8 Bolt  
x8

Install the 1/4-20 x5/8 Bolts and Nuts to each corner of the runners

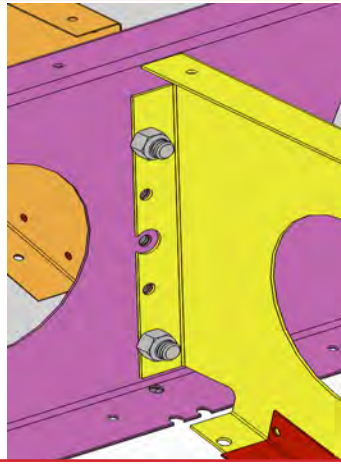
### STEP 12



3/16" Rivets  
x4

Rivet Step 6 to Step 11

### STEP 13



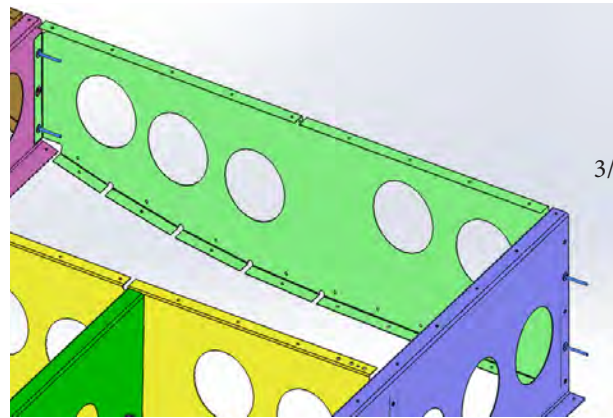
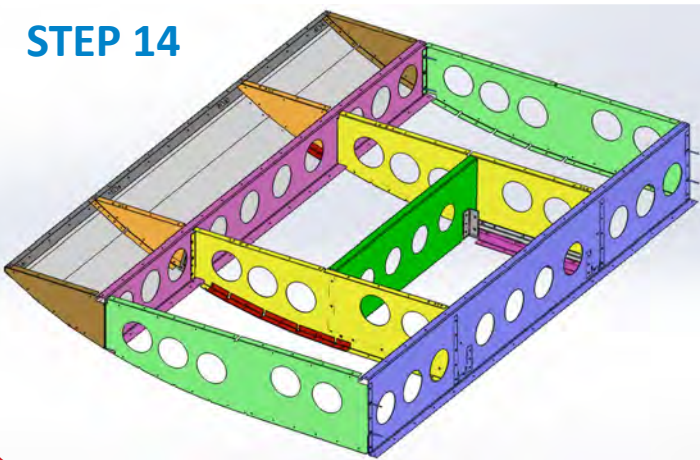
1/4-20  
Lock Nut  
x4



1/4-20  
x3/4 Bolt  
x4

Install the 1/4-20 x3/4 Bolts and Nuts to strengthen Step 12

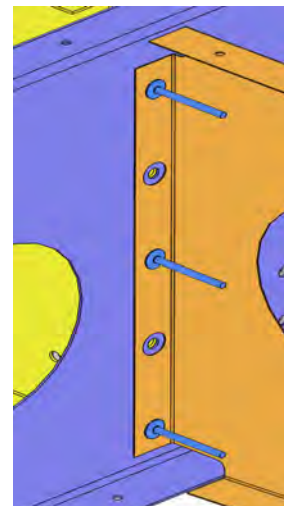
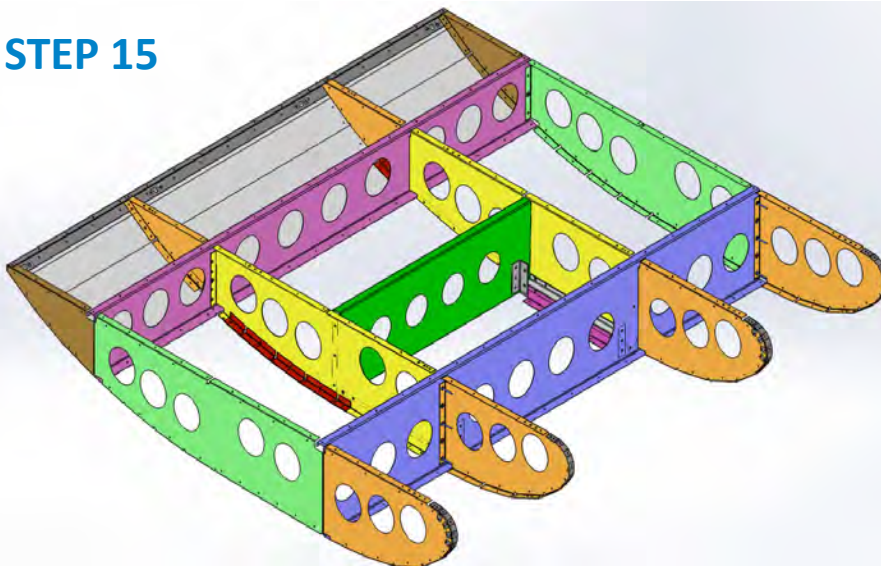
### STEP 14



3/16" Rivets  
x8

Rivet the Center Outer Profiles (21, 22) to Step 13

### STEP 15

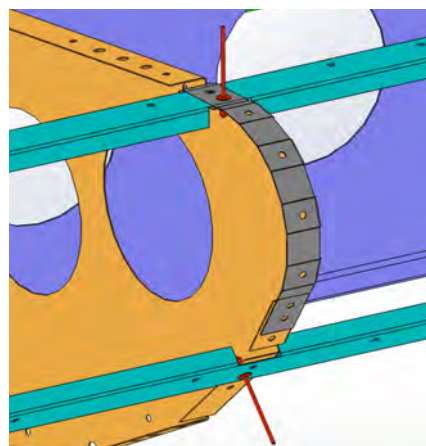
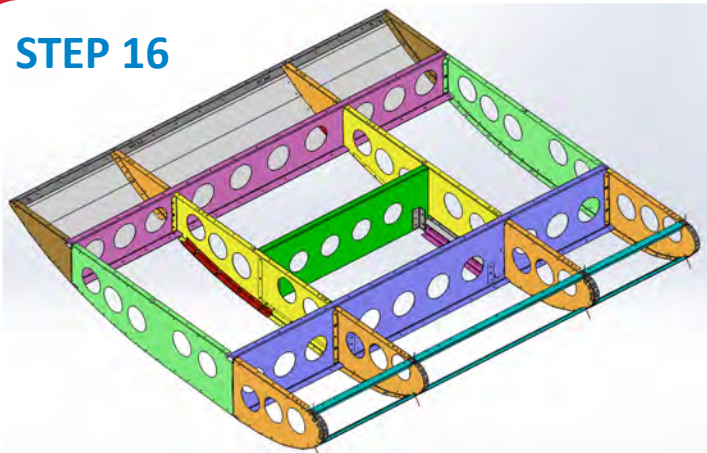


3/16" Rivets  
x12

Rivet Step 1 to Step 14

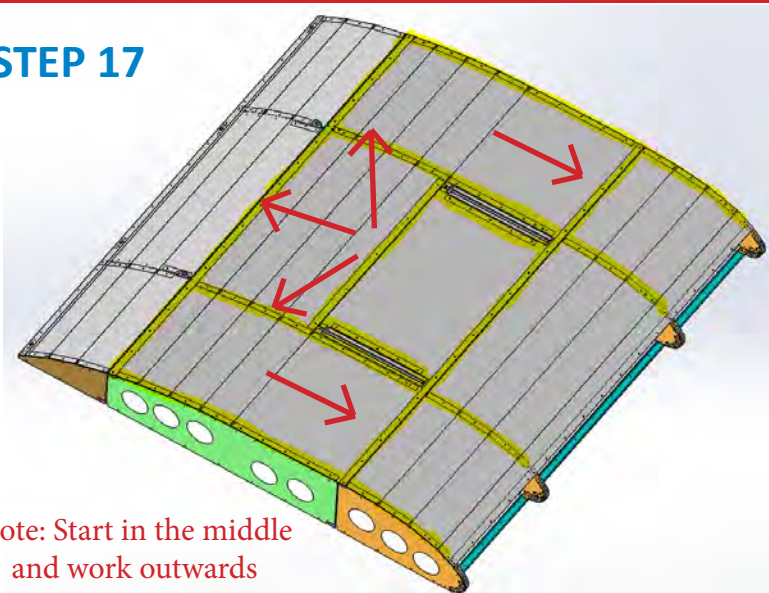


## STEP 16

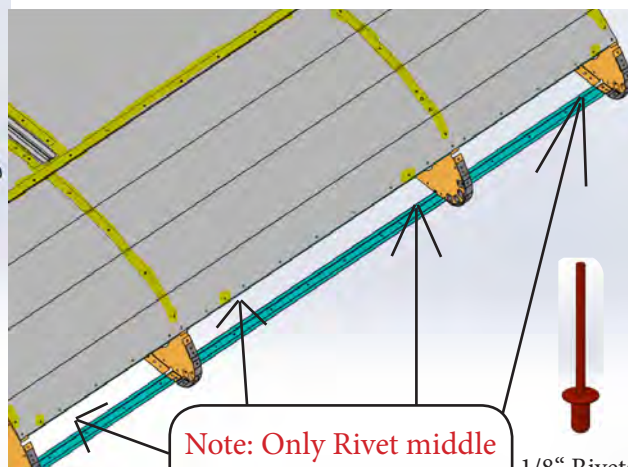


Rivet on x2 Nose Backers (27) to Step 15

## STEP 17



Note: Start in the middle and work outwards

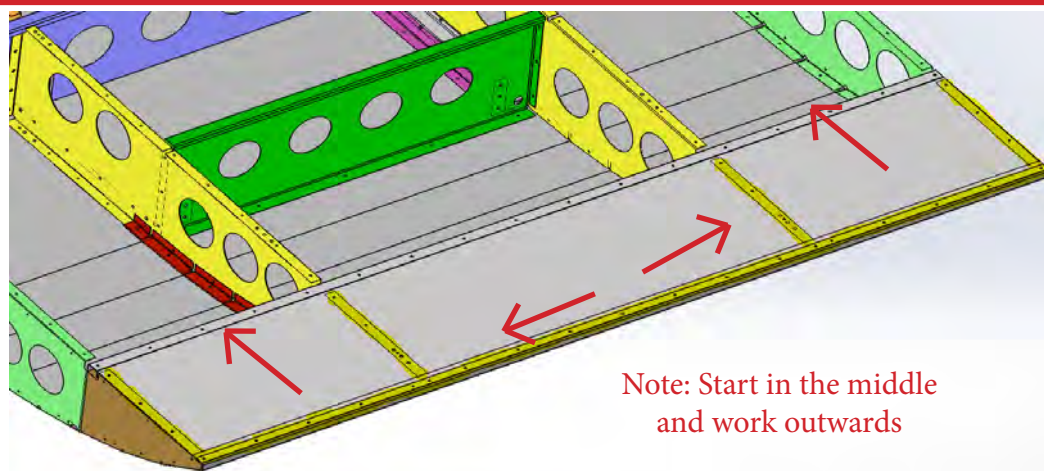


Note: Only Rivet middle hole in the group of 3

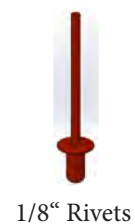
1/8" Rivets

Attach the Bottom Skin (28) to Step 16 by riveting the 1/8" holes highlighted

## STEP 18



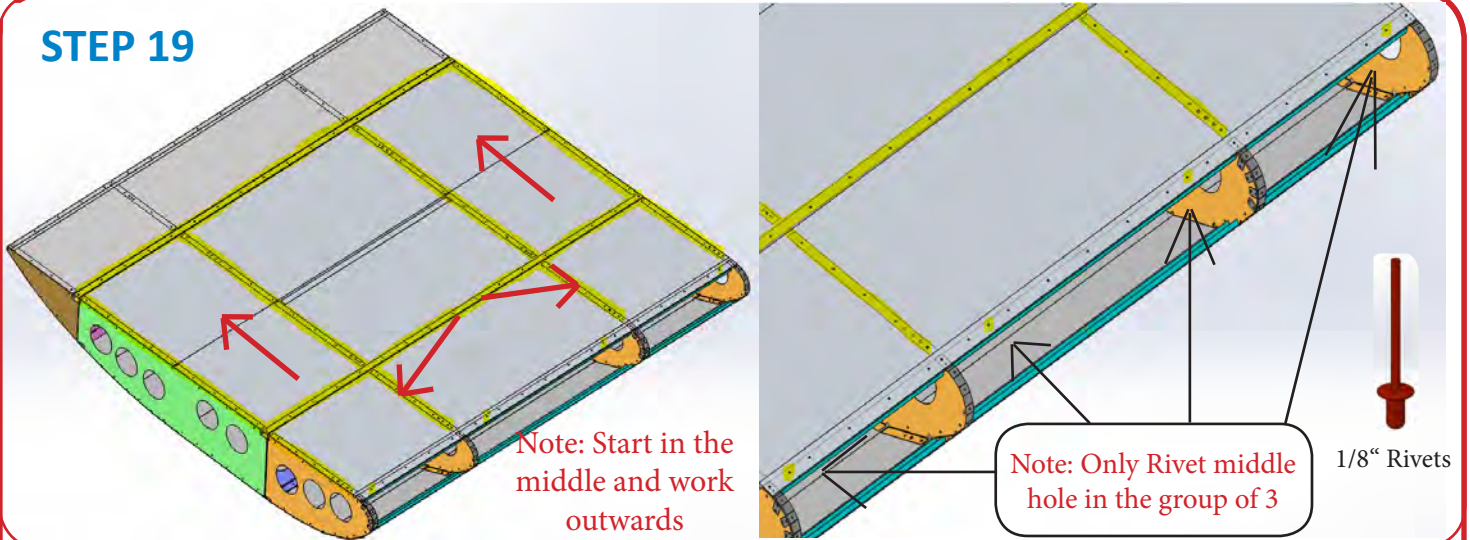
Note: Start in the middle and work outwards



Rivet the Top Rear Skin (29) to Step 17 by riveting the 1/8" holes highlighted

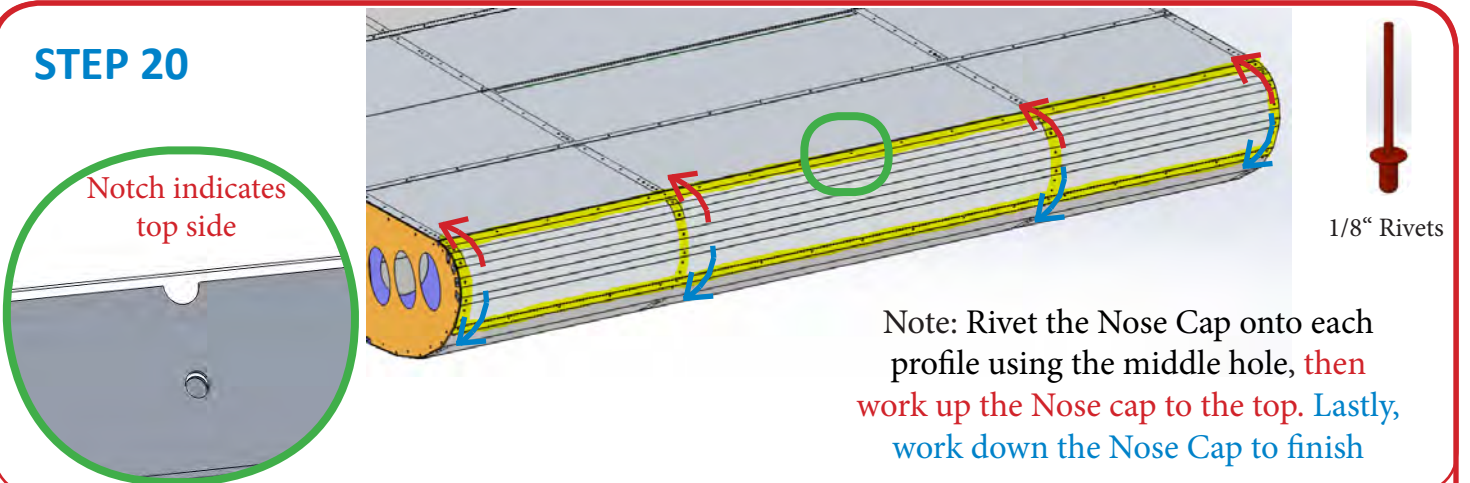


## STEP 19



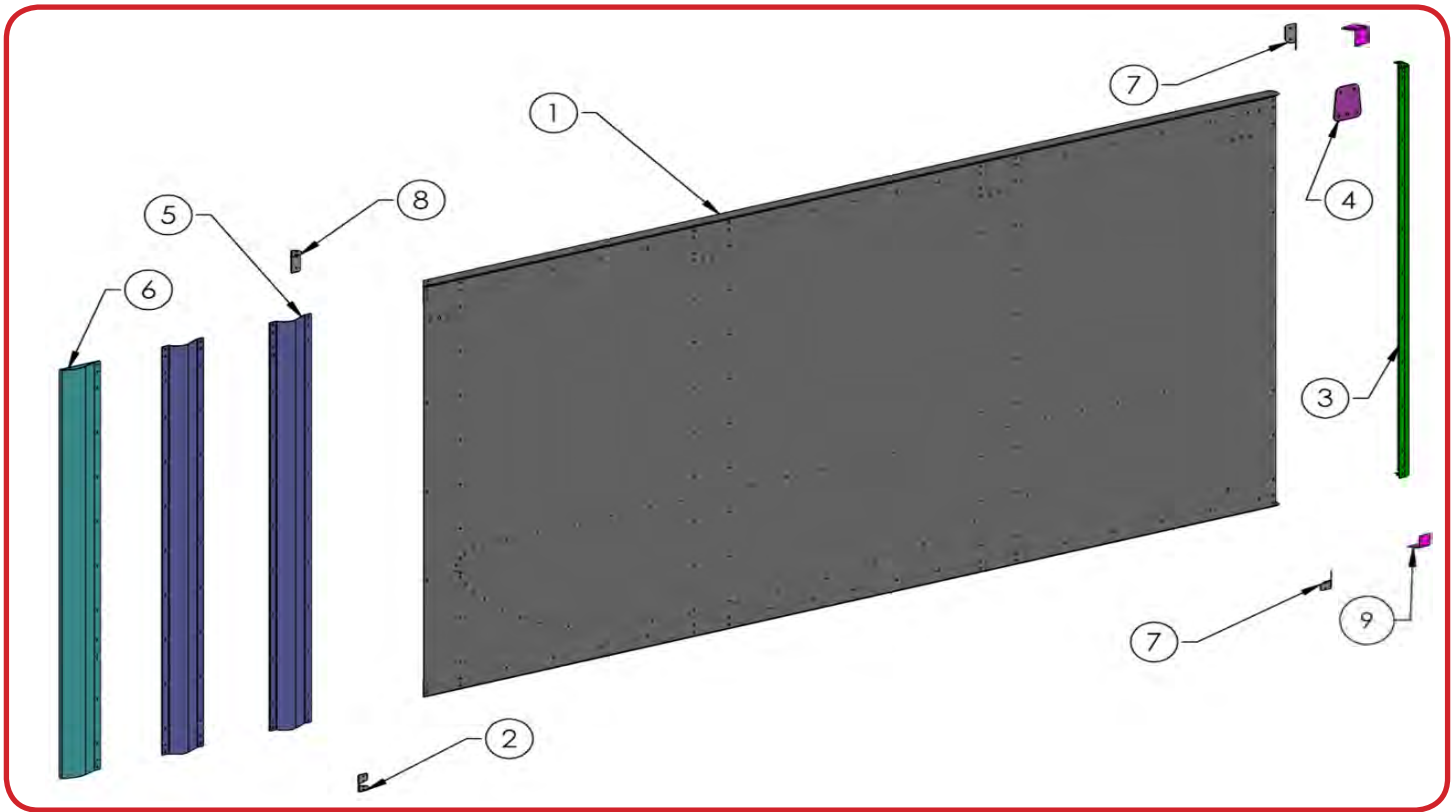
Rivet the Top Skin (30) to Step 18 by riveting the 1/8" holes highlighted

## STEP 20



Rivet the Nose Cap (31) to Step 19 by riveting the 1/8" holes highlighted

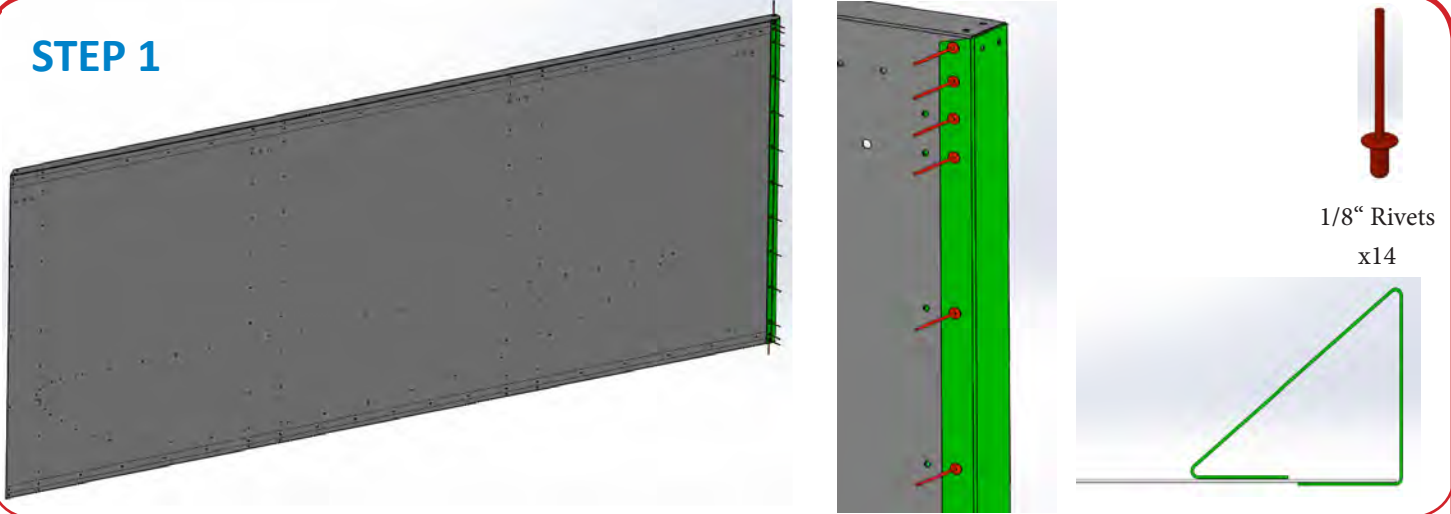
## LH 2" Lead Board Schematic and Checklist



### LH 2" LEAD BOARD PARTS LIST

SKU #	HRP #	PART DESCRIPTION	QUA	CHECK
1	FLT5083-200	Side Board	1	<input type="checkbox"/>
2	VFT5097	Front Bottom Cap	1	<input type="checkbox"/>
3	FLT5085	Back Edge	1	<input type="checkbox"/>
4	VFT5085	Brace Stiffener	1	<input type="checkbox"/>
5	FLT5081	Upright	2	<input type="checkbox"/>
6	FLT5082-200	Front Edge	1	<input type="checkbox"/>
7	VFT5095	Back Stiffener	2	<input type="checkbox"/>
8	VFT5096	Front Top Cap	1	<input type="checkbox"/>
9	VFT5094	Back Outer Stiffener	2	<input type="checkbox"/>

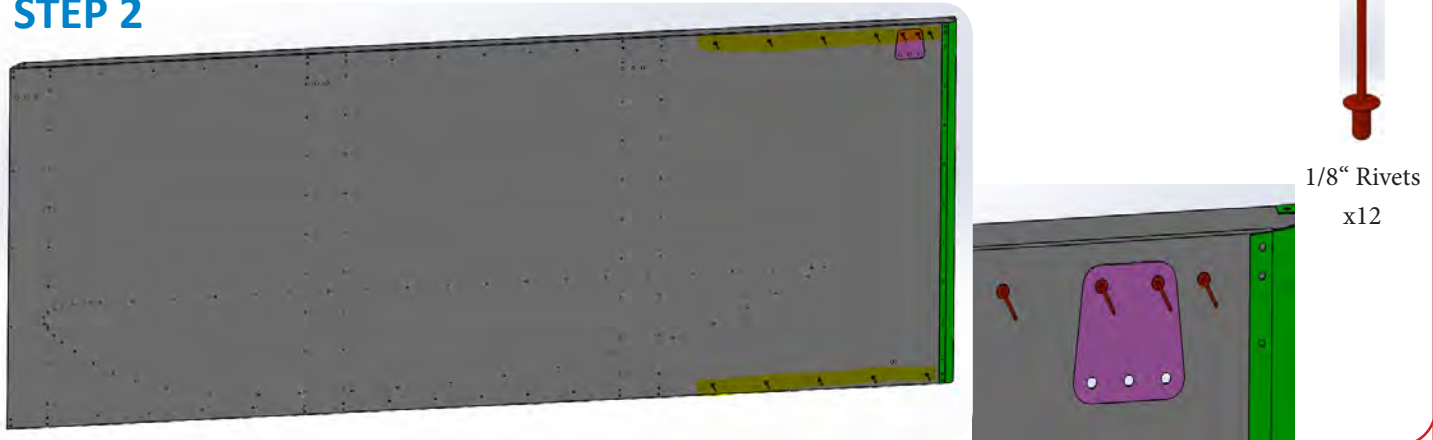
### STEP 1



1/8" Rivets  
x14

Rivet the Back Edge (3) to the Side Board (1)

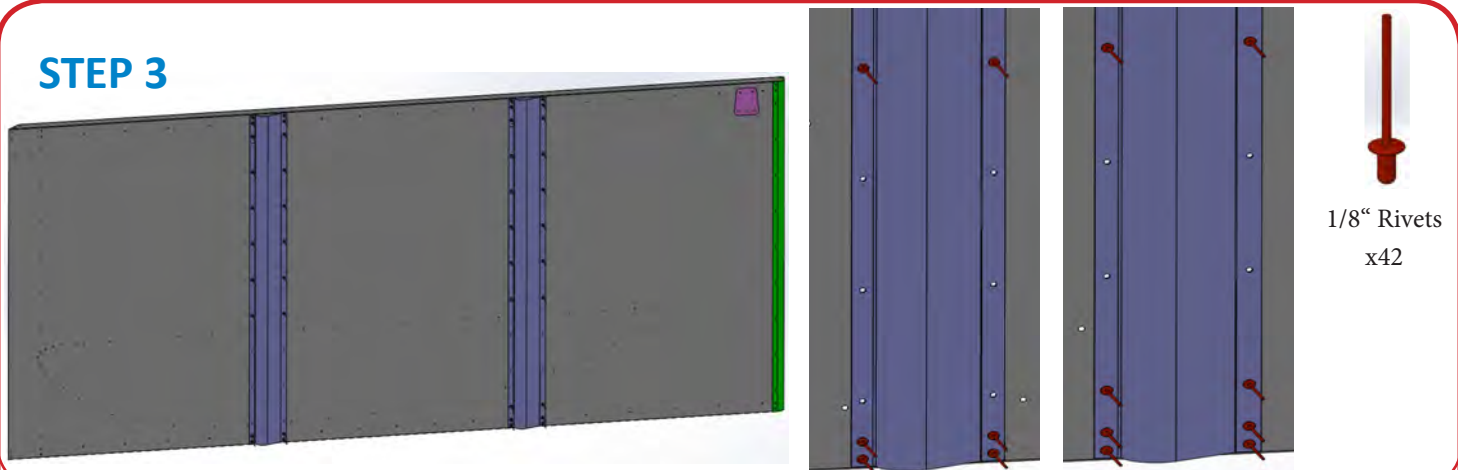
### STEP 2



1/8" Rivets  
x12

Rivet the Brace Stiffener (4) to Step 1 and then rivet the bottom and top edges of the back half of Step 1 by riveting the 1/8" holes highlighted

### STEP 3



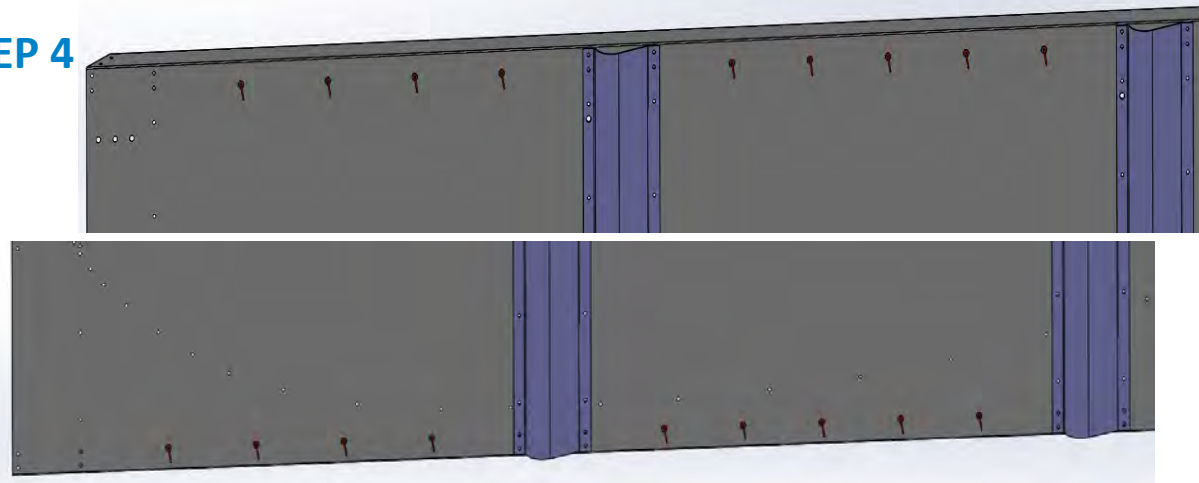
1/8" Rivets  
x42

Rivet the x2 Upright (5) to Step 2

Note: There are no rivets on the Cross Brackets where the wing profile is



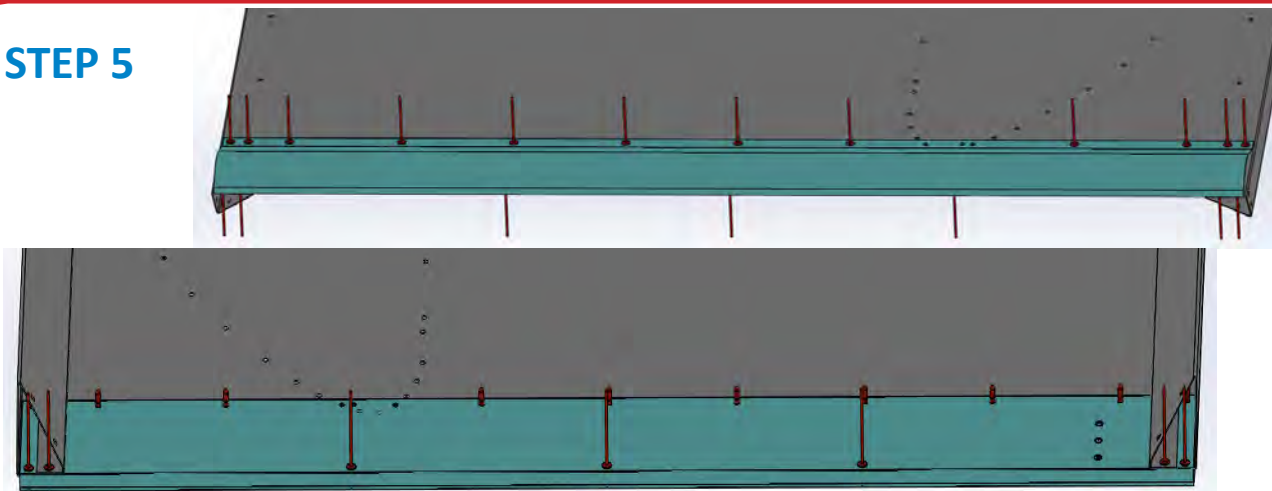
## STEP 4



1/8" Rivets  
x18

Rivet the rest of the bottom and top edges of Step 3 leaving the holes in the front where the Front Edge (6) is attached

## STEP 5

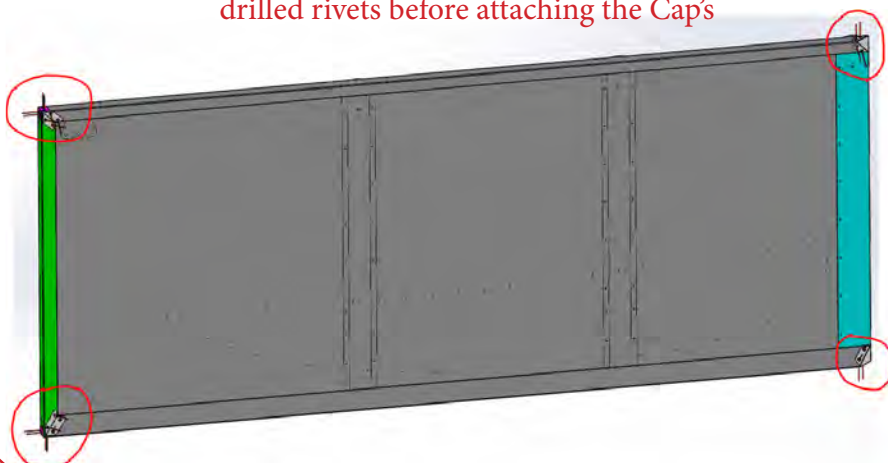


1/8" Rivets  
x19

Rivet on the Front Edge (6) to Step 4

## STEP 6

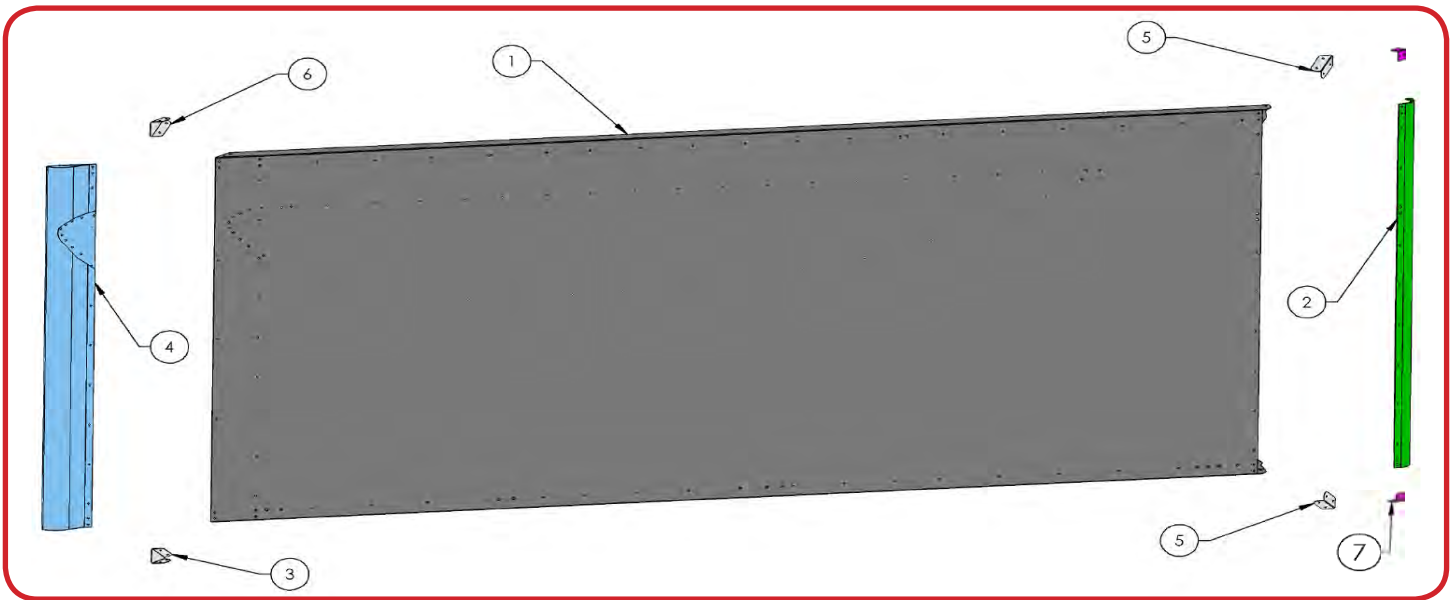
Note: Empty out any shavings from drilled rivets before attaching the Cap's



1/8" Rivets  
x24

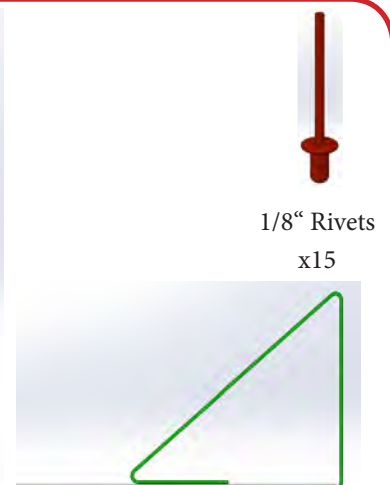
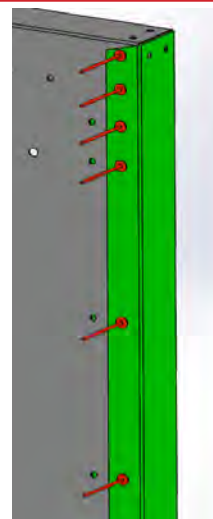
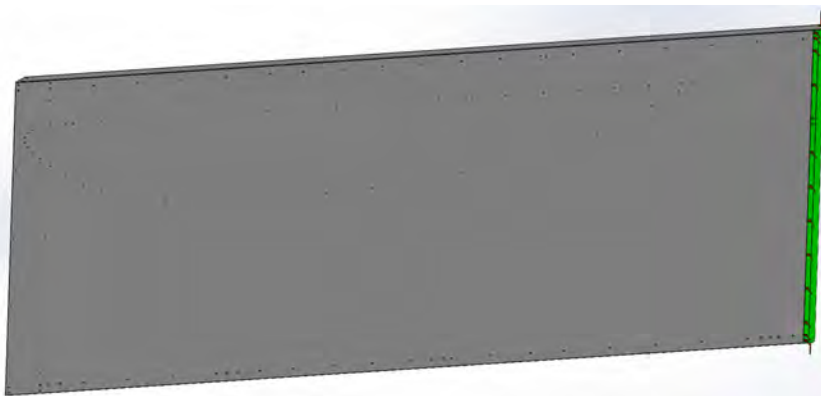
Rivet the x2 Back Stiffeners (7) and x2 Back Outer Stiffeners (9) to Step 5 and then rivet the Front Bottom Cap (2) and Front Top Cap (8) to Step 5

# RH Super Board and Standard Board Schematic and Checklist



RH SUPER BOARD PARTS LIST					STANDARD BOARD PARTS LIST	
SKU #	HRP #	PART DESCRIPTION	QUA	CHECK	HRP #	CHECK
1	FLT5090-S050	Side Board	1		FLT5090-***	
2	VFT5087-S	Back Edge	1		VFT5087	
3	VFT5097	Front Bottom Cap	1		VFT5097	
4	VFT5089-S050	Front Edge	1		VFT5089-***	
5	VFT5095	Back Stiffener	2		VFT5095	
6	VFT5096	Front Top Cap	1		VFT5096	
7	VFT5094	Back Outer Stiffener	2		VFT5094	

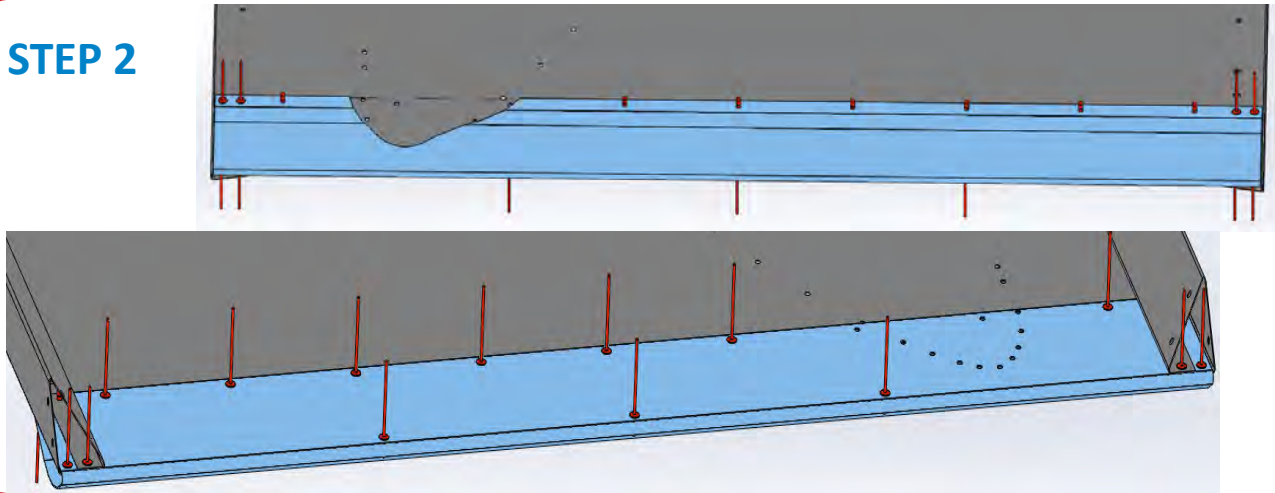
## STEP 1



1/8" Rivets  
x15

Rivet the Back Edge (2) to the Side Board (1)

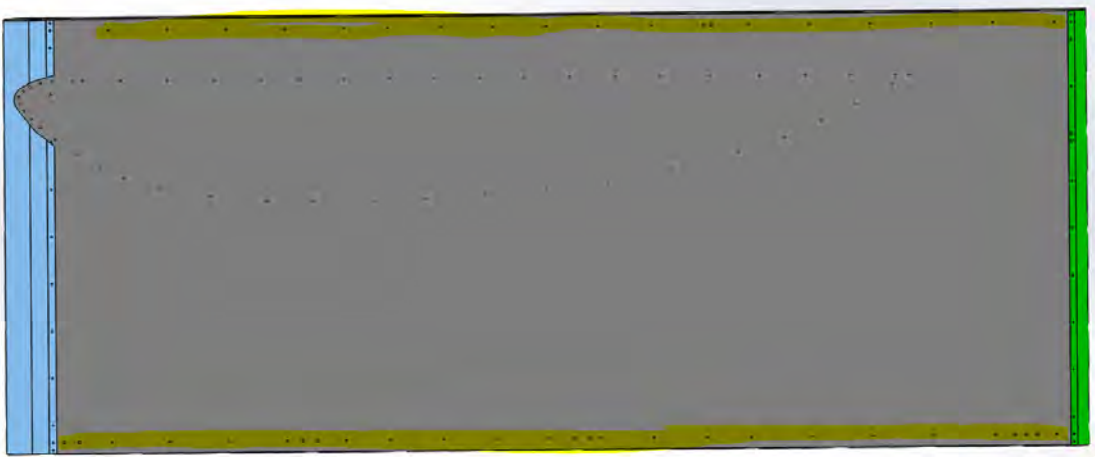
## STEP 2



1/8" Rivets  
x17

Rivet on the Front Edge (4) to Step 1

## STEP 3


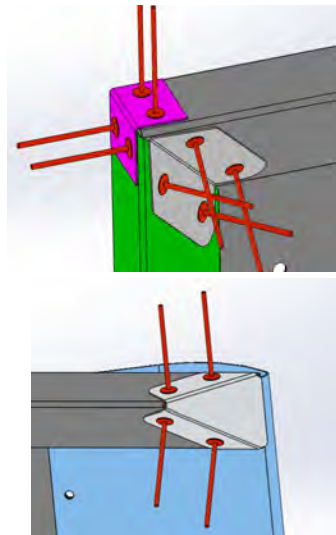
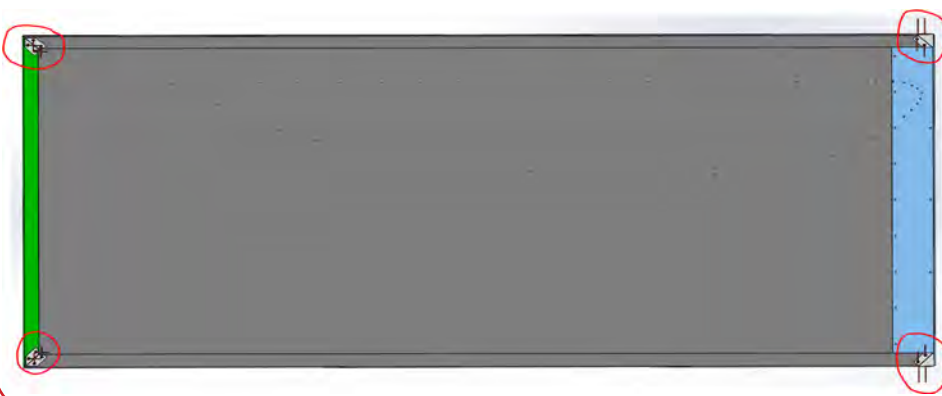


1/8" Rivets

Rivet the 1/8" holes highlighted

## STEP 4

Note: Empty out any shavings from drilled rivets before attaching the Cap's

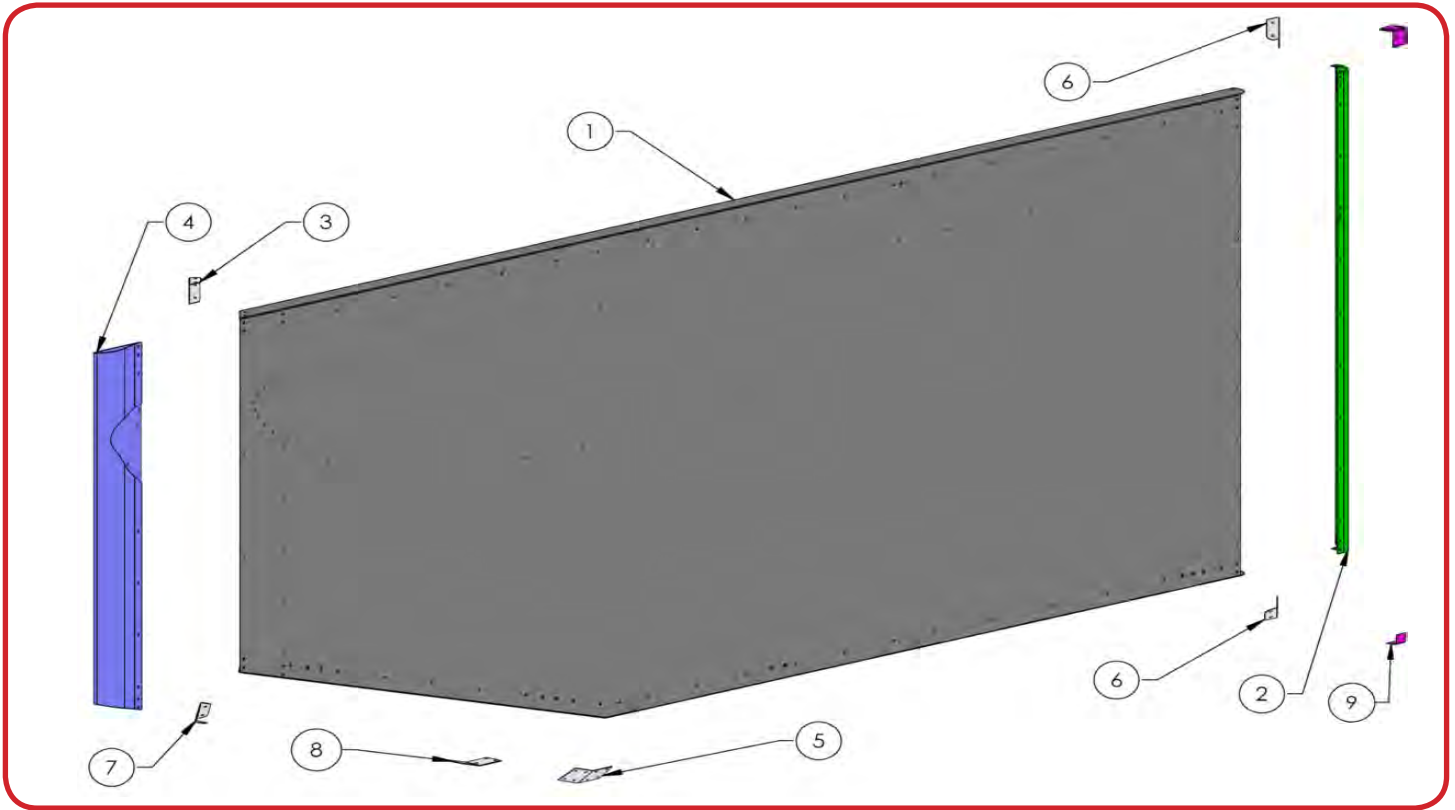


1/8" Rivets  
x24

Rivet the x2 Back Stiffener (5) and x2 Back Outer Stiffeners (8) to Step 3 and then rivet the Front Bottom Cap (3) and Front Top Cap (6) to Step 3



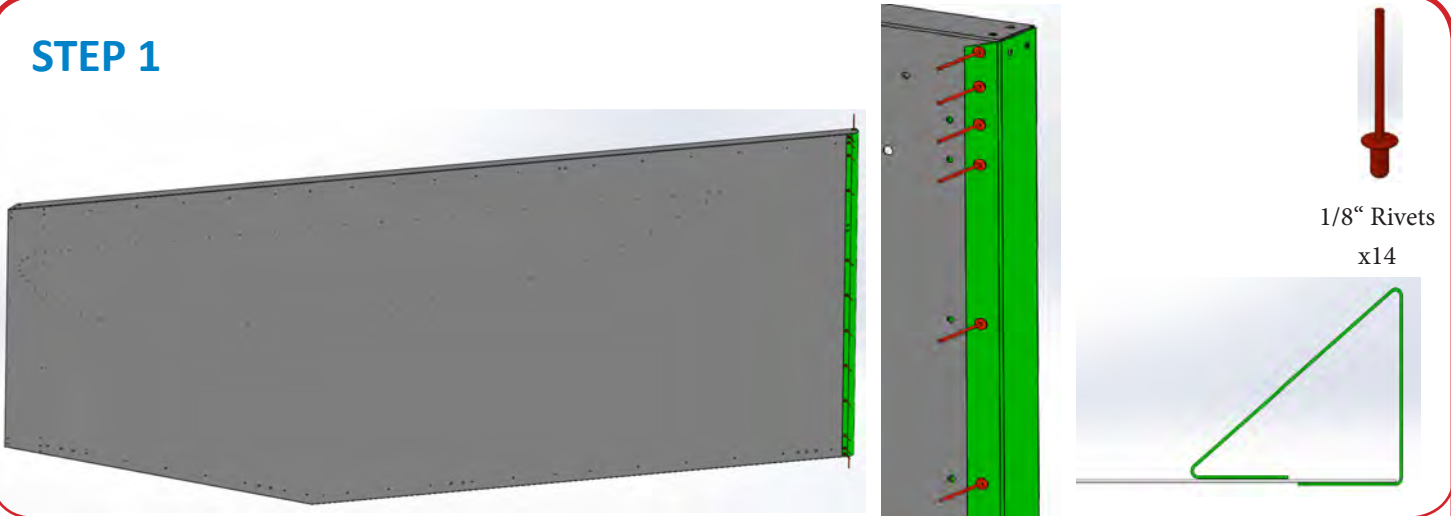
# RH Super Angle Board Schematic and Checklist



## RH SUPER ANGLE BOARD PARTS LIST

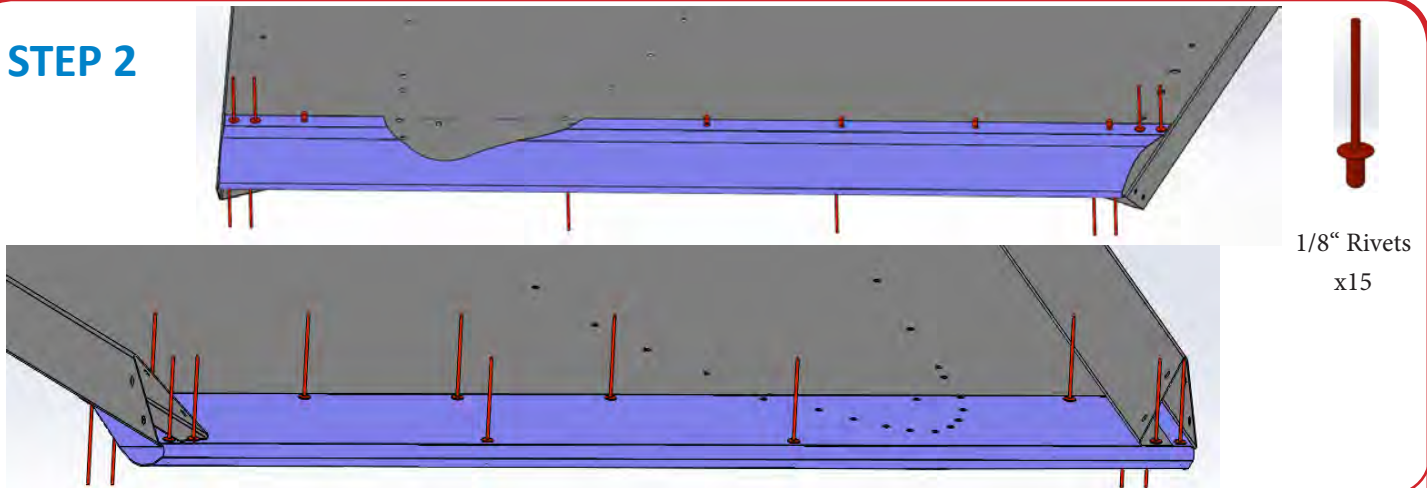
SKU #	HRP #	PART DESCRIPTION	QUA	CHECK
1	FLT5090-S050-ANG	Side Board	1	
2	FLT5086-S	Back Edge	1	
3	VFT5096	Front Top Cap	1	
4	FLT5089-SANG	Front Edge	1	
5	AF03350V	Inner Angle Stiffener	1	
6	VFT5095	Back Stiffener	2	
7	VFT5097	Front Bottom Cap	1	
8	AF03349V	Outer Angle Stiffener	1	
9	VFT5094	Back Outer Stiffener	2	

### STEP 1



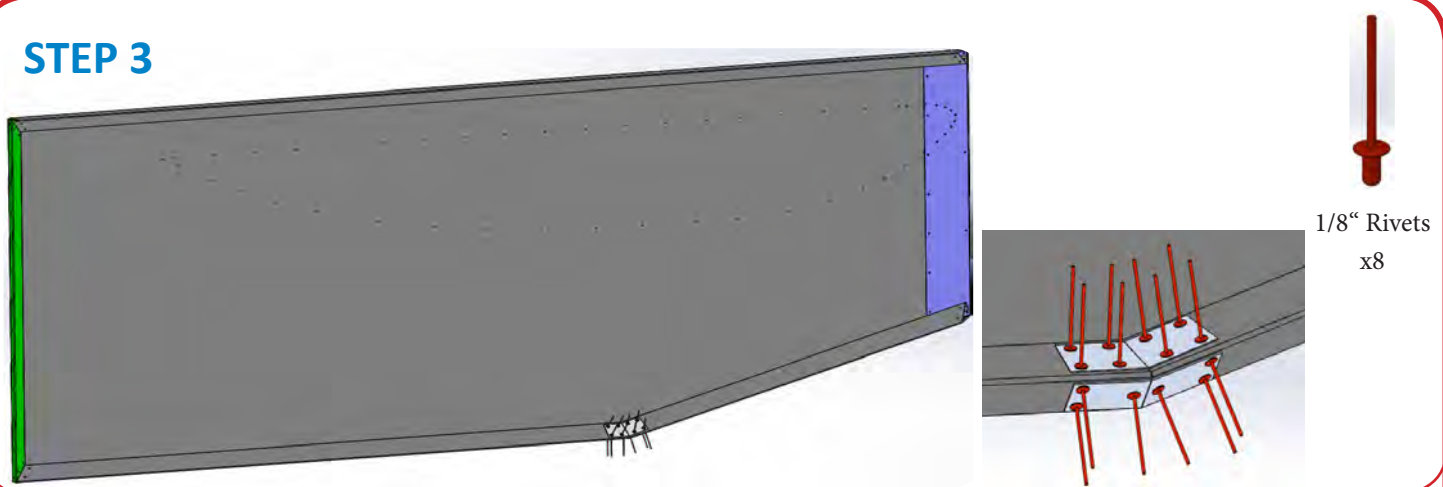
Rivet the Back Edge (2) to the Side Board (1)

### STEP 2



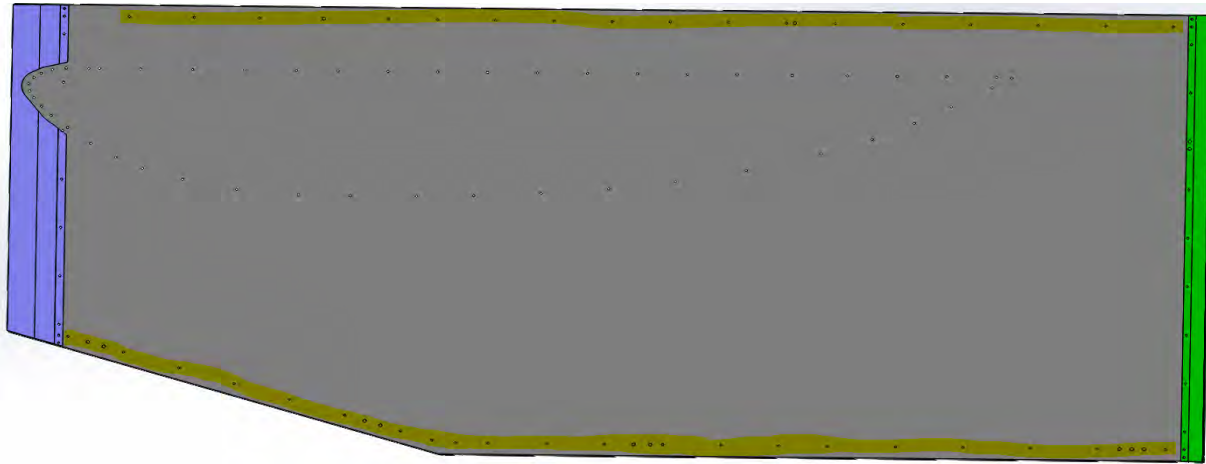
Rivet on the Front Edge (4) to Step 1

### STEP 3



Rivet the Inner Angle Stiffener (5) and Outer Angle Stiffener (8) to Step 2

## STEP 4

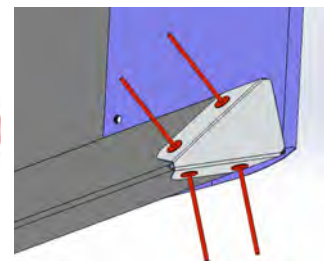
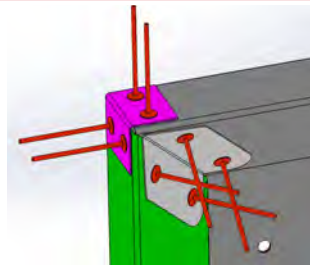
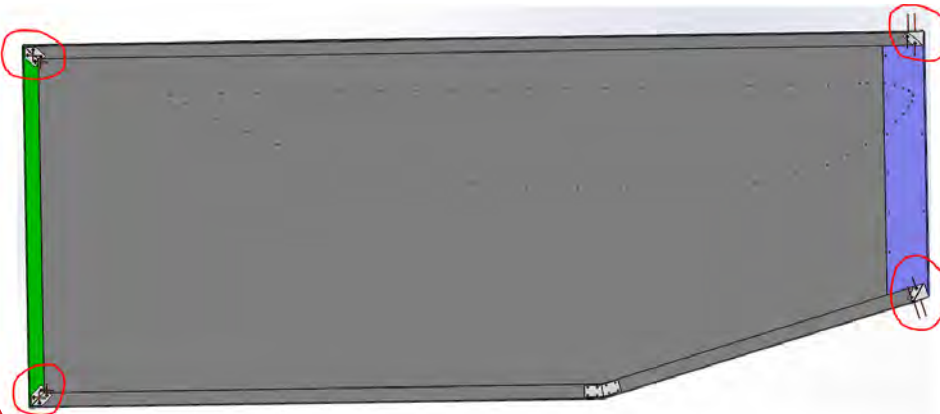


1/8" Rivets

Rivet the 1/8" holes highlighted

## STEP 5

Note: Empty out any shavings from drilled rivets before attaching the Cap's



1/8" Rivets  
x24

Rivet the x2 Back Stiffeners (6) and x2 Back Outer Stiffeners (9) to Step 4 and then rivet the Front Bottom Cap (7) and Front Top Cap (3) to Step 4