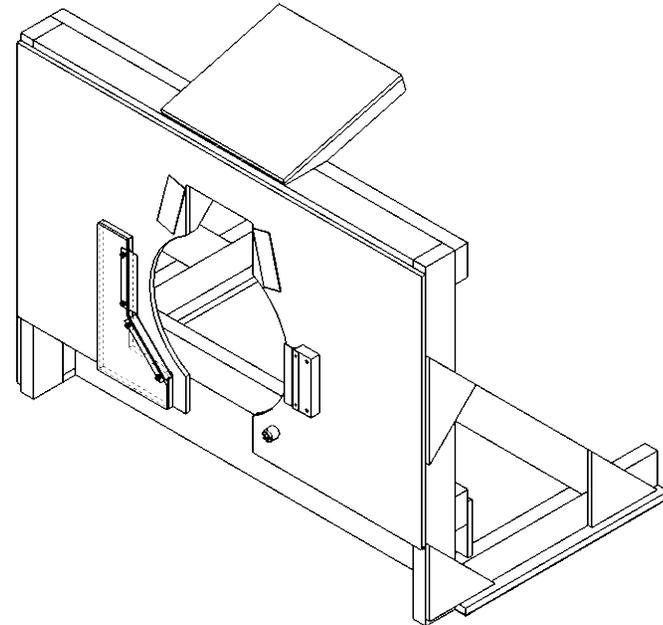


ITEM NO.	PART NUMBER	QTY.
1	TE-19108-01	1
2	TE-19108-02	1
3	TE-19108-03	6
4	TE-19108-04	1
5	TE-19108-05	2
6	TE-19108-06	1
7	TE-19108-07	2
8	TE-19108-08	1
9	TE-19108-09	2
10	TE-19108-10	2
11	TE-19108-11	2
12	TE-19108-12	2
13	TE-19108-13	2
14	TE-19108-14	1
15	TE-19108-15	2
16	TE-19108-16	1
17	TE-19108-17	1
18	TE-19108-18	2
19	TE-19108-19	3
20	TE-19108-20	2
21	TE-19108-21	2
22	button_hex_.25_20_1.25	1
23	flat_hex_10_24_.625	4
24	nylock_.25_20	1
25	nylock_10_24	4
26	MMC# 9540K953	1

REVISIONS				
ZONE	REV.	DESCRIPTION	DATE	APPROVED
B2, 2-B2, 13-B1, 15-B2	A	Moved materials table to sheet 2. Updated dimensions of TE-19108-16 to more closely match field elements. Added sheet with modification instructions to make initial Rev perform as Rev A intends.	1/30/2019	

Note:  
Set up for one side  
Mirror Assembly for Half Field for  
the opposite side



B

B

A

A

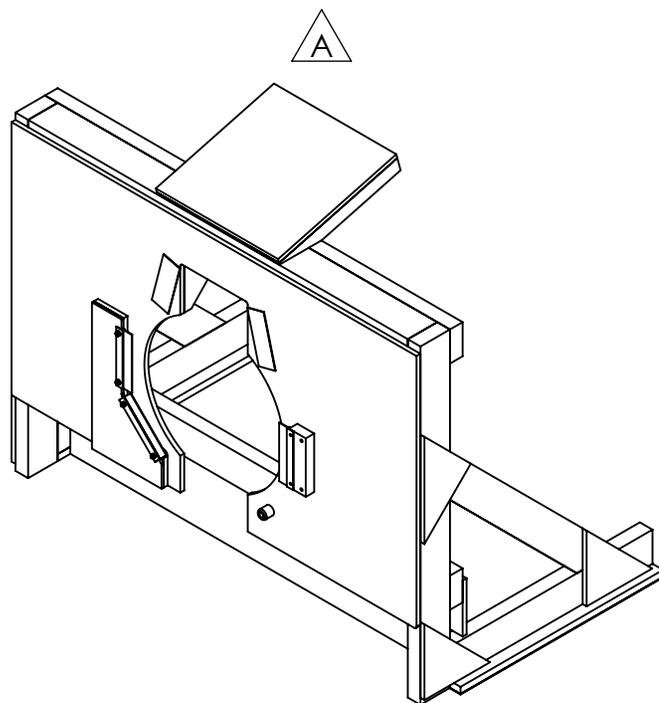
<p><b>PROPRIETARY AND CONFIDENTIAL</b> THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF <b>FIRST®</b>. ANY REPRODUCTION IN PART OR AS A WHOLE WITHOUT THE WRITTEN PERMISSION OF <b>FIRST®</b> IS PROHIBITED.</p>			UNLESS OTHERWISE SPECIFIED:		NAME	DATE	 	
			DIMENSIONS ARE IN INCHES TOLERANCES: FRACTIONAL ± 1/16 ANGULAR: MACH ± 1° BEND ± 1° TWO PLACE DECIMAL ± .01 THREE PLACE DECIMAL ± .001	DRAWN				TITLE: <h1>Loading Station</h1>
			INTERPRET GEOMETRIC TOLERANCING PER:	CHECKED				
			MATERIAL	ENG APPR.				
			FINISH	MFG APPR.				
	NEXT ASSY	USED ON		Q.A.			SIZE <b>A</b> DWG. NO. <b>TE-19108</b> REV <b>A</b>	
	APPLICATION		DO NOT SCALE DRAWING	COMMENTS:			SCALE: 1:16 WEIGHT: SHEET 1 OF 15	

2

1

B

B



Material	QTY
Flat head 10-24 X0.625"	4
15/32"(1/2") A/C or CDX Plywood	1 sheet
1/4" Hardboard	1 (2'x4') sheet
2"x 4"x 8'	5.5
Frost King C35PH	1
McMaster 9540K953	1
Button Head 1/4"-20 x 1.25	1
Nylock 1/4"-20	1
Nylock 10-24	4
Frost King door sweep	1
2" Hook Fastener	48"
2" Vison Tape	11"
1.25" wood screws	~90
2.5" wood screws	~40

A

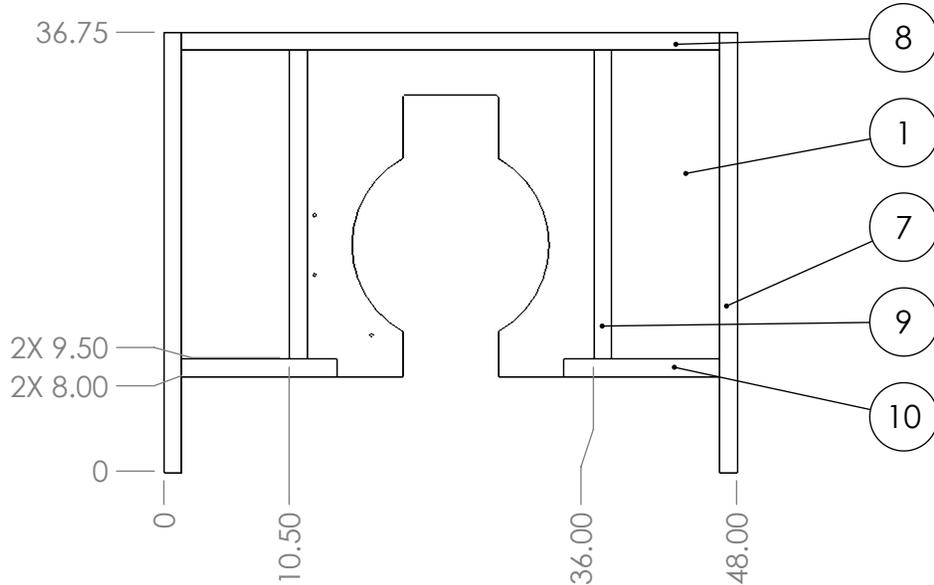
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			DIMENSIONS ARE IN INCHES	DRAWN				<p>TITLE:</p> <h1>Loading Station</h1>
			TOLERANCES:	CHECKED				
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			ANGULAR: MACH ±1° BEND ±1°	MFG APPR.				
		TWO PLACE DECIMAL ±.01	Q.A.				<p>SIZE DWG. NO. REV</p> <p><b>A</b> <b>TE-19108</b> <b>A</b></p>	
		THREE PLACE DECIMAL ±.001	COMMENTS:					
		INTERPRET GEOMETRIC TOLERANCING PER:					SCALE: 1:16 WEIGHT: SHEET 2 OF 15	
		MATERIAL						
		FINISH						
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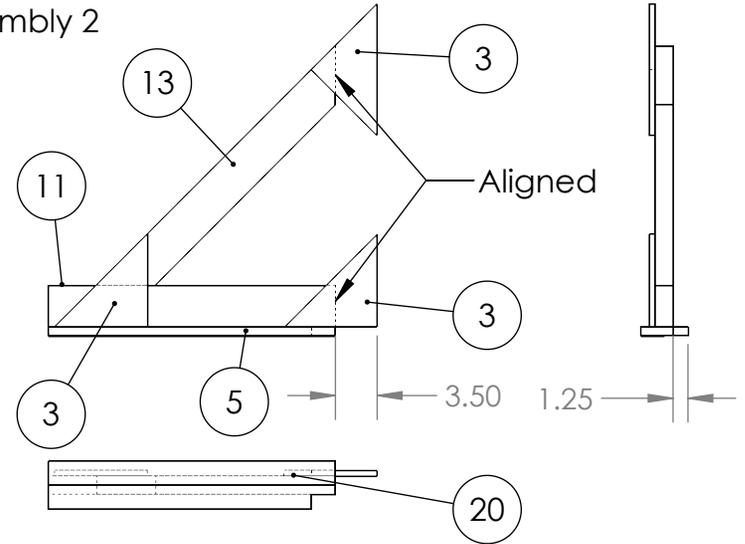
2

1

Subassembly 1



Subassembly 2



Note:

- Attach 9 10 7 8 together to make a frame. Use 2.5" screws to attach.
- Attach 1 to the frame flush to 7 and 10. Use 1.25" screws.
- Pre-drill as necessary

Note:

- Attach 13 to 11 with 2.5" screws. Reinforce with 3.
- Attach two more 3 as shown using 1.25" screws.
- Attach 20 as shown with 1.25" screws. Apply 20 to bottom.

B

B

A

A

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		MATERIAL	ENG APPR.		
		FINISH	MFG APPR.		
NEXT ASSY	USED ON		Q.A.		
			COMMENTS:		
APPLICATION		DO NOT SCALE DRAWING			




TITLE:

# Loading Station

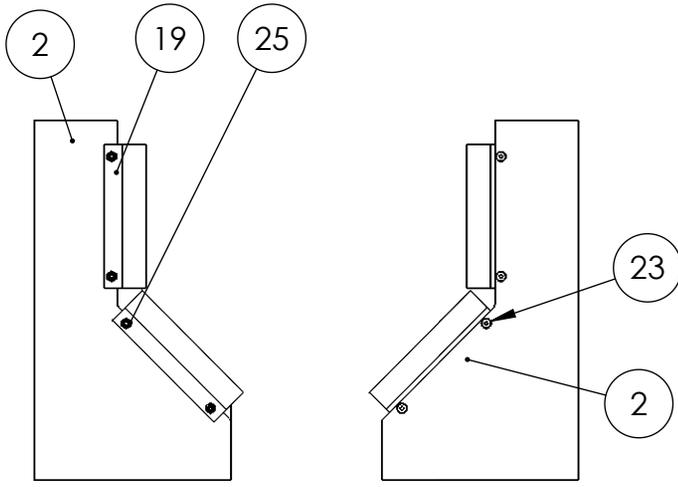
SIZE	DWG. NO.	REV
<b>A</b>	<b>TE-19108</b>	<b>A</b>

SCALE: 1:16 WEIGHT: SHEET 3 OF 15

2

1

B

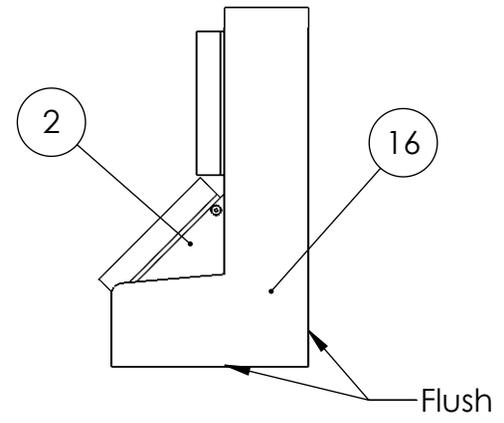


Front

Back

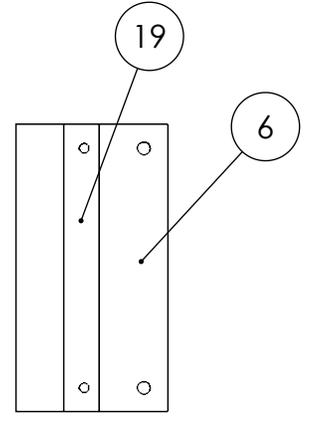
Note:  
Attach (19) to (2) with (23) and (25).

Subassembly 3:



Note:  
- Attach (16) to the back of (2) flush on indicated edges.  
- Use 1.25" screws, but do not screw in all the way.

Subassembly 4:



Note:  
Attach (19) to (6) with 1.25" screws

B

A

A

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		TOLERANCES:	CHECKED	
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		ANGULAR: MACH ± 1° BEND ± 1°	MFG APPR.	
		TWO PLACE DECIMAL ± .01	Q.A.	
		THREE PLACE DECIMAL ± .001	COMMENTS:	
		INTERPRET GEOMETRIC TOLERANCING PER:		
		MATERIAL		
NEXT ASSY	USED ON	FINISH		
APPLICATION		DO NOT SCALE DRAWING		

**FIRST ROBOTICS COMPETITION** **SOLIDWORKS** Modeling Solutions Partner

TITLE: **Loading Station**

SIZE	DWG. NO.	REV
<b>A</b>	<b>TE-19108</b>	<b>A</b>

SCALE: 1:16 WEIGHT: SHEET 4 OF 15

2

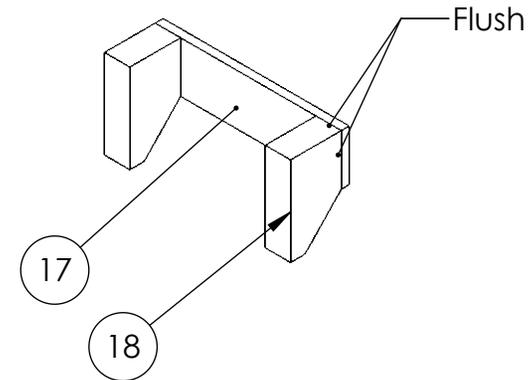
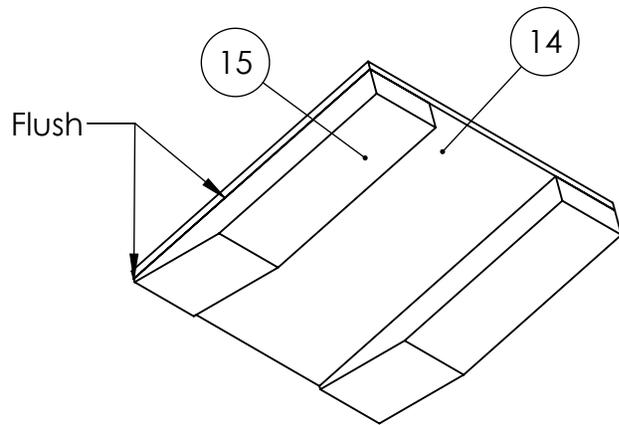
1

2

1

Subassembly 5:

Subassembly 6:



Note:

- Attach (14) to (15) with 1.25" screws.
- Keep flush at indicated edges.

Note:

- Attach (17) to (18) with 1.25" screws
- Keep flush at indicated edges.

B

B

A

A

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		TOLERANCES:	CHECKED		
		FRACTIONAL ± 1/16	ENG APPR.		
		ANGULAR: MACH ± 1° BEND ± 1°	MFG APPR.		
		TWO PLACE DECIMAL ± .01	Q.A.		
		THREE PLACE DECIMAL ± .001	COMMENTS:		
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		MATERIAL			
		FINISH			
NEXT ASSY	USED ON				
APPLICATION		DO NOT SCALE DRAWING			



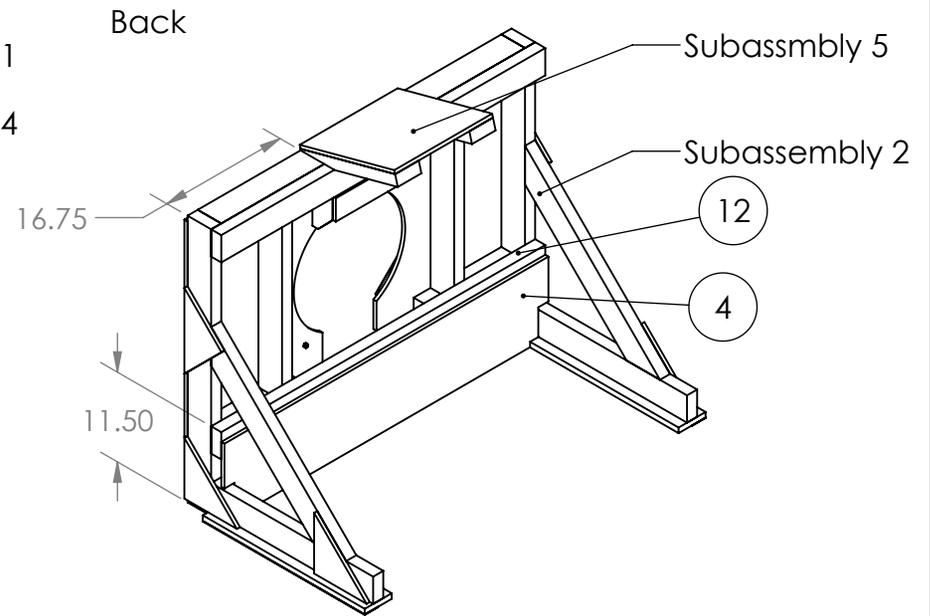
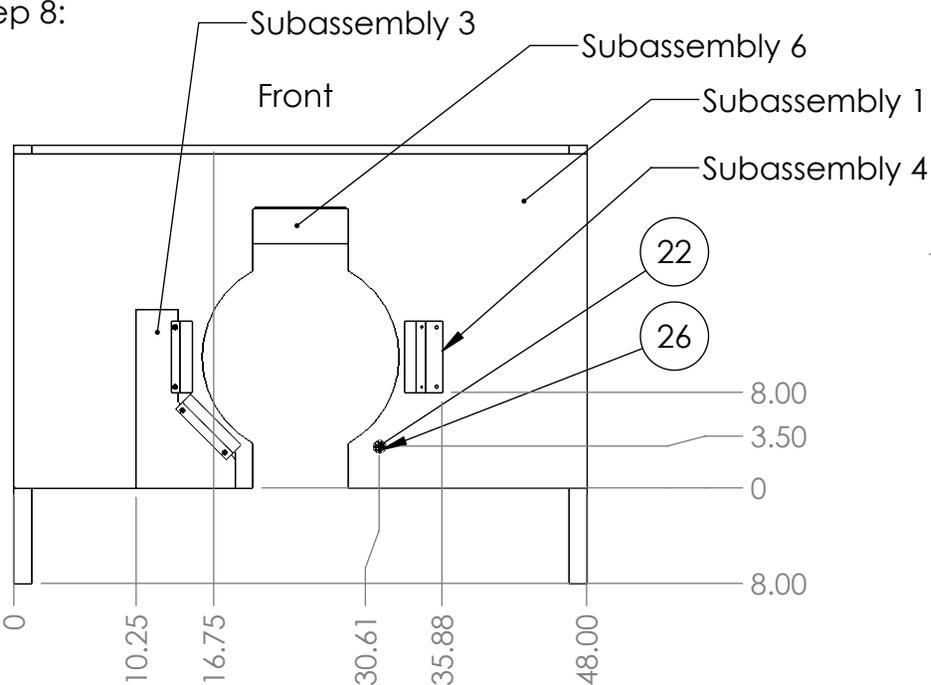
TITLE:  
**Loading Station**

SIZE	DWG. NO.	REV
<b>A</b>	<b>TE-19108</b>	<b>A</b>
SCALE: 1:16 WEIGHT:		SHEET 5 OF 15

2

1

Step 8:



Note:

- Attach Subassembly 3 to Subassembly 1 using 1.25" screws.
- Attach Subassembly 4 to Subassembly 6 using 1.25" screws.
- Attach Subassembly 6 using 2.5" screws. Keep sides and top flush to opening.

Notes:

- Attach Subassembly 2 to the sides of Subassembly 1.
- Attach Subassembly 5 as shown. Use 2.5" screws to attach.
- Attach (12) using 2.5" screws.
- Attach (4) to (12) using 1.25" screws

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		INTERPRET GEOMETRIC TOLERANCING PER:	CHECKED		
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		FINISH	MFG APPR.		
NEXT ASSY	USED ON		Q.A.		
			COMMENTS:		
APPLICATION		DO NOT SCALE DRAWING			

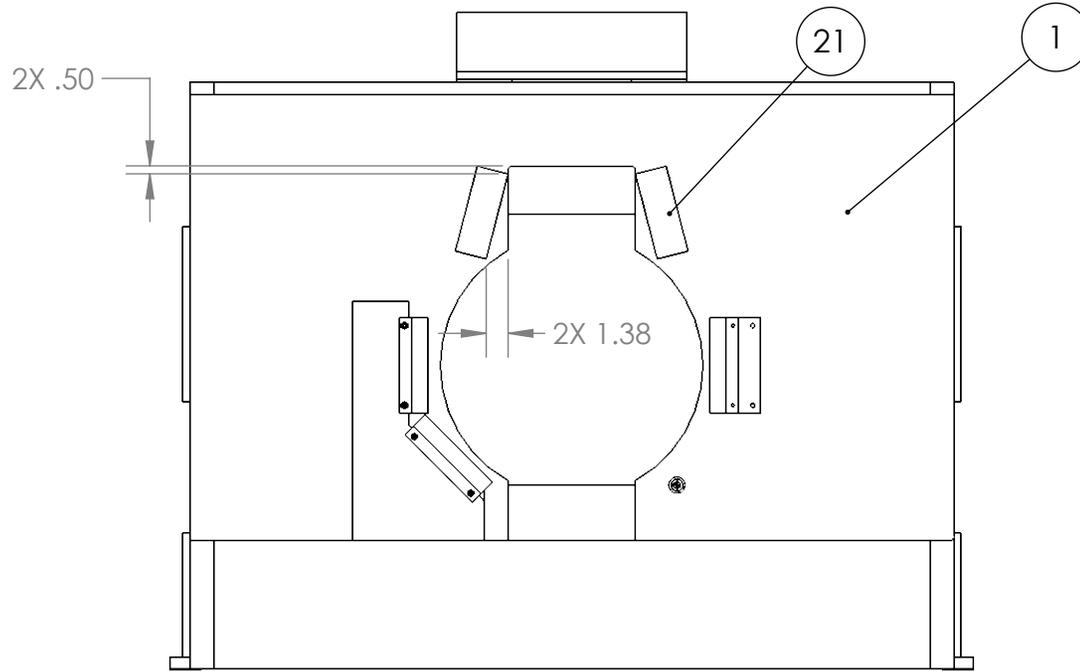


TITLE:  
**Loading Station**

SIZE DWG. NO. REV  
**A TE-19108 A**

SCALE: 1:16 WEIGHT: SHEET 6 OF 15

Step 10:



Note:  
Attach (21) to (1) as shown.

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		TOLERANCES:	CHECKED		
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		ANGULAR: MACH $\pm 1^\circ$ BEND $\pm 1^\circ$	MFG APPR.		
		TWO PLACE DECIMAL $\pm .01$	Q.A.		
		THREE PLACE DECIMAL $\pm .001$	COMMENTS:		
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		MATERIAL			
NEXT ASSY	USED ON	FINISH			
APPLICATION		DO NOT SCALE DRAWING			



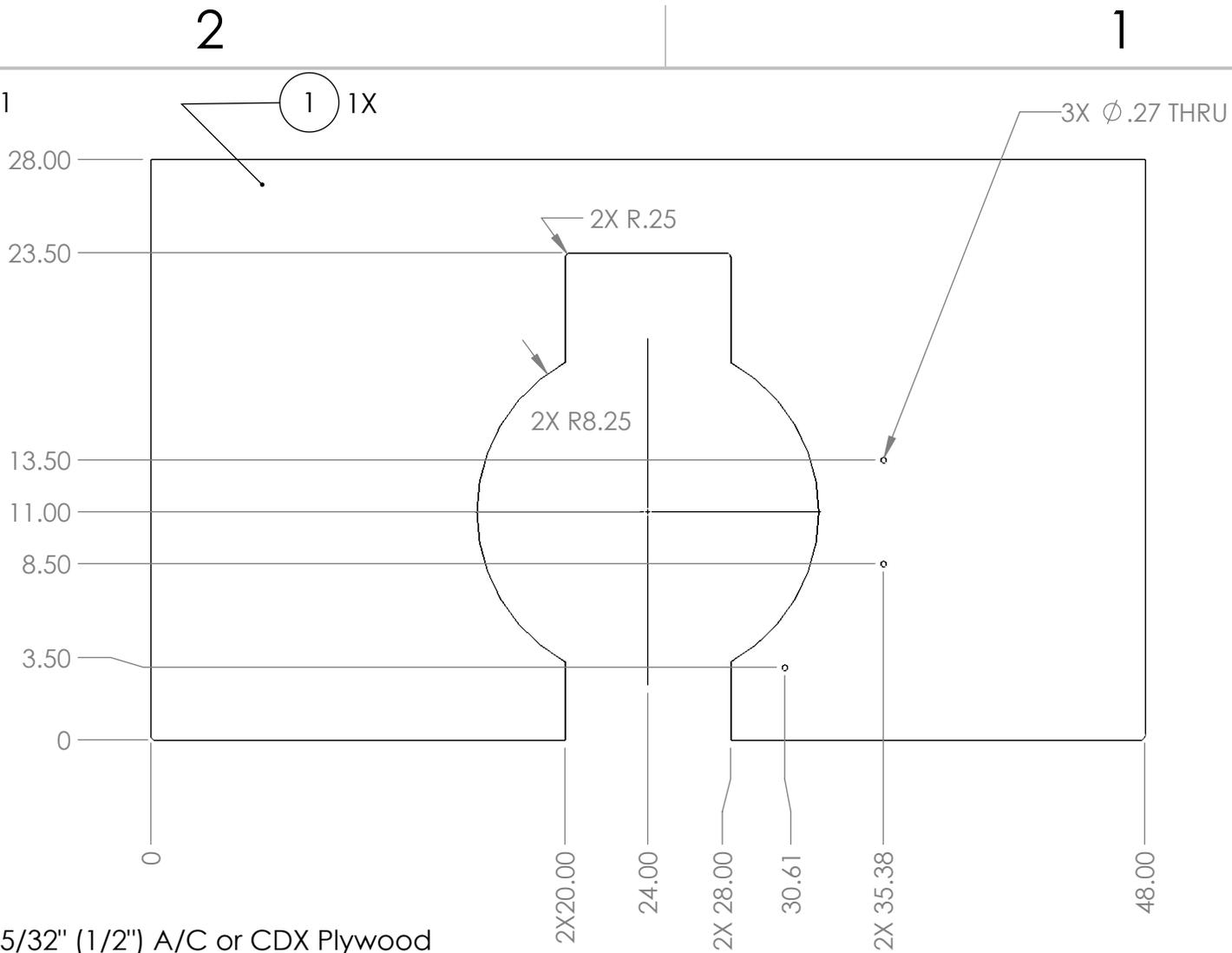
TITLE:  
**Loading Station**

SIZE	DWG. NO.	REV
<b>A</b>	<b>TE-19108</b>	<b>A</b>
SCALE: 1:16 WEIGHT:		SHEET 7 OF 15

TE-19108-01

B

B



Note:  
Material 15/32" (1/2") A/C or CDX Plywood

A

A

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		TOLERANCES:	CHECKED		
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		ANGULAR: MACH ± 1° BEND ± 1°	MFG APPR.		
		TWO PLACE DECIMAL ± .01	Q.A.		
		THREE PLACE DECIMAL ± .001	COMMENTS:		
		INTERPRET GEOMETRIC TOLERANCING PER:			
		MATERIAL			
NEXT ASSY	USED ON	FINISH			
APPLICATION		DO NOT SCALE DRAWING			



TITLE:  
**Loading Station**

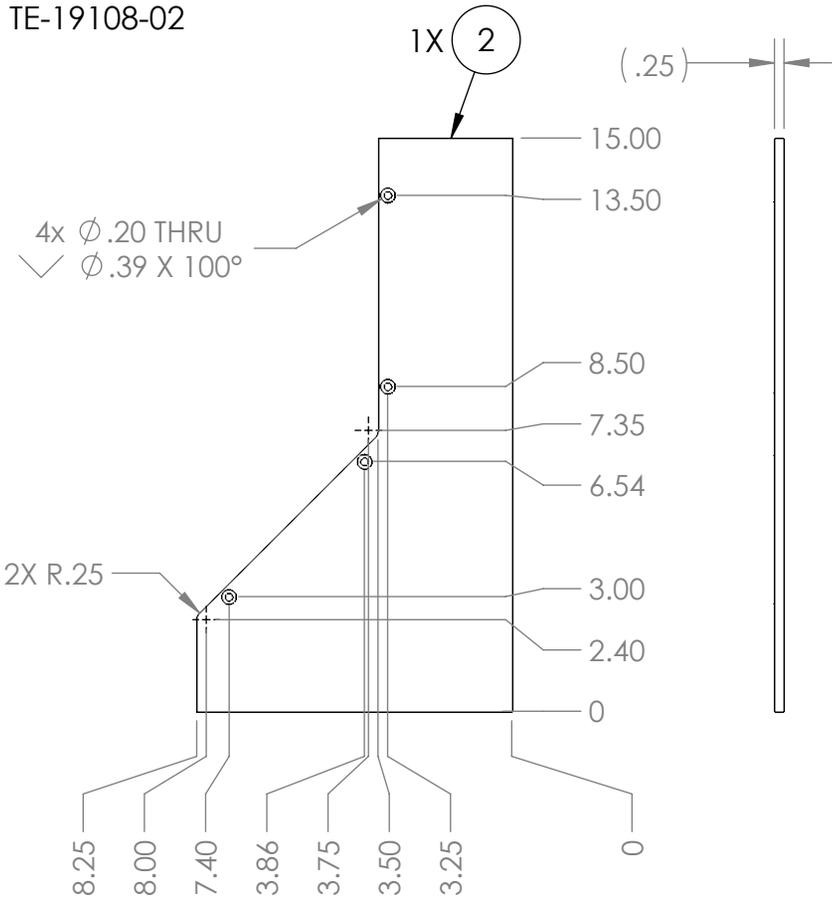
SIZE **A** DWG. NO. **TE-19108** REV **A**

SCALE: 1:16 WEIGHT: SHEET 8 OF 15

2

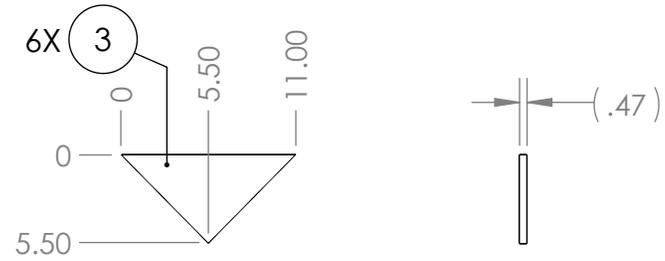
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TE-19108-02



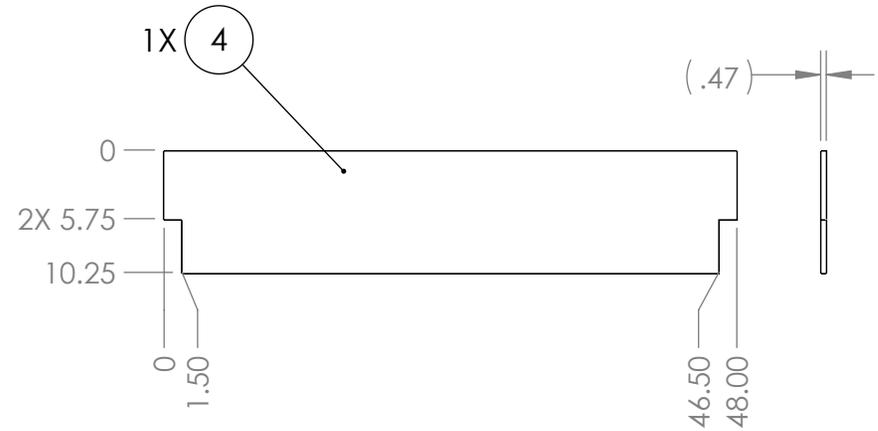
Note:  
Material 1/4" Hardboard

TE-19108-03



Note:  
Material 15/32" (1/2") A/C or CDX Plywood

TE-19108-04



Note:  
Material 15/32" (1/2") A/C or CDX Plywood

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		ANGULAR: MACH ± 1° BEND ± 1°	MFG APPR.		
		TWO PLACE DECIMAL ± .01	Q.A.		
		THREE PLACE DECIMAL ± .001	COMMENTS:		
		INTERPRET GEOMETRIC TOLERANCING PER:			
		MATERIAL			
		FINISH			
NEXT ASSY	USED ON				
APPLICATION		DO NOT SCALE DRAWING			

**FIRST ROBOTICS COMPETITION** **SOLIDWORKS** Modeling Solutions Partner

TITLE: **Loading Station**

SIZE	DWG. NO.	REV
<b>A</b>	<b>TE-19108</b>	<b>A</b>

SCALE: 1:16 WEIGHT: SHEET 9 OF 15

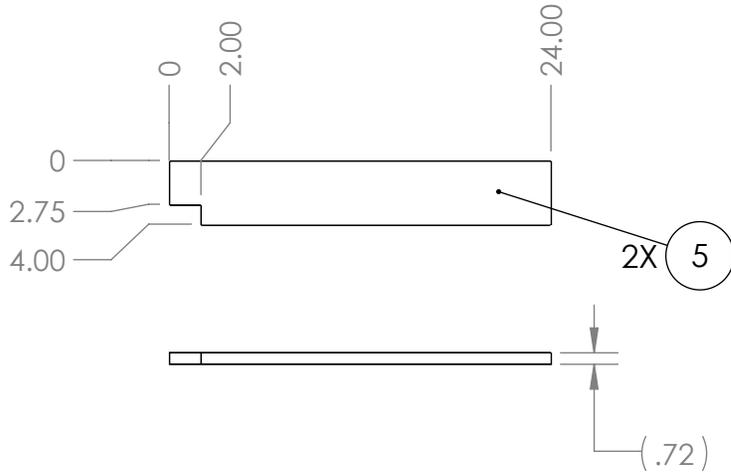
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1

TE-19108-05

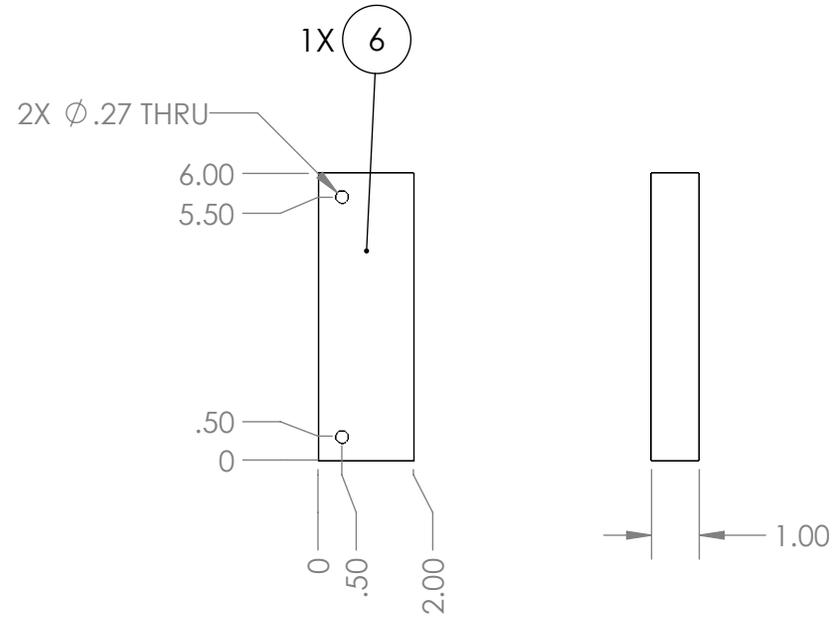
TE-19108-06

B



Note:  
Material 23/32" (3/4") A/C or CDX Plywood

B



Notes:  
Material 2"x 4" Lumber Pine

A

A

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		ANGULAR: MACH ± 1° BEND ± 1°	MFG APPR.		
		TWO PLACE DECIMAL ± .01	Q.A.		
		THREE PLACE DECIMAL ± .001	COMMENTS:		
		INTERPRET GEOMETRIC TOLERANCING PER:			
		MATERIAL			
		FINISH			
NEXT ASSY	USED ON				
APPLICATION		DO NOT SCALE DRAWING			



TITLE:  
**Loading Station**

SIZE	DWG. NO.	REV
<b>A</b>	<b>TE-19108</b>	<b>A</b>

SCALE: 1:16 WEIGHT: SHEET 10 OF 15

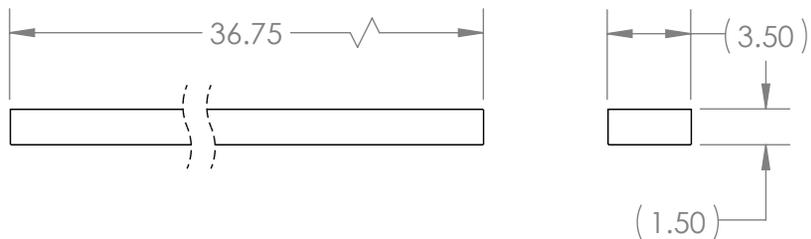
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1

2

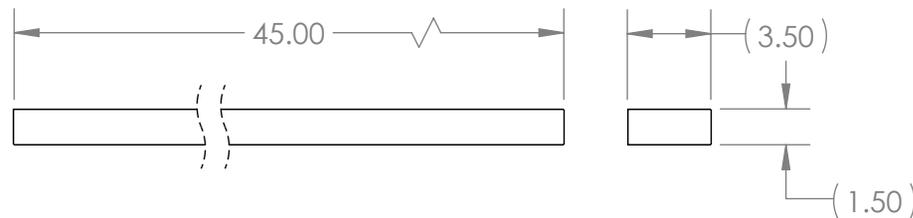
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TE-19108-07



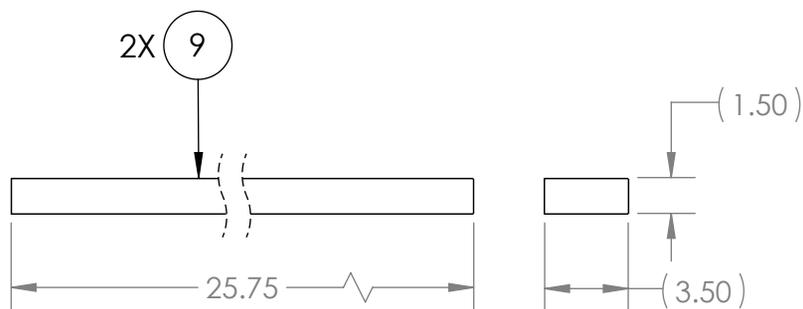
Notes:  
Material 2"x 4" Lumber Pine

TE-19108-08



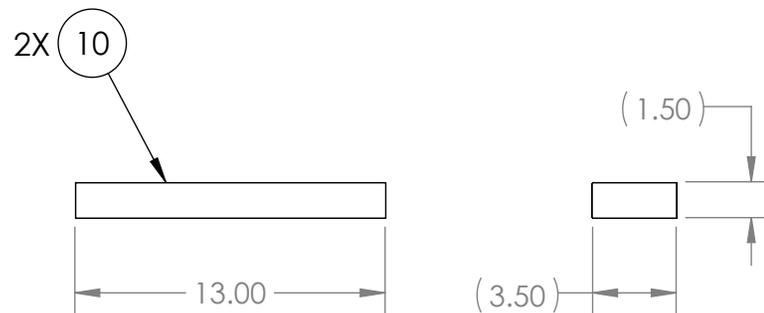
Notes:  
Material 2"x 4" Lumber Pine

TE-19108-09



Notes:  
Material 2"x 4" Lumber Pine

TE-19108-10



Notes:  
Material 2"x 4" Lumber Pine

B

B

A

A

2

1

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		TOLERANCES:	CHECKED		
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		ANGULAR: MACH ± 1° BEND ± 1°	MFG APPR.		
		TWO PLACE DECIMAL ± .01	Q.A.		
		THREE PLACE DECIMAL ± .001	COMMENTS:		
		INTERPRET GEOMETRIC TOLERANCING PER:			
		MATERIAL			
		FINISH			
NEXT ASSY	USED ON				
APPLICATION		DO NOT SCALE DRAWING			



TITLE:  
**Loading Station**

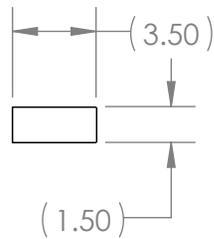
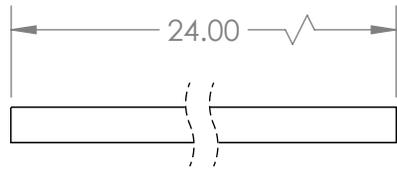
SIZE	DWG. NO.	REV
<b>A</b>	<b>TE-19108</b>	<b>A</b>

SCALE: 1:16 WEIGHT: SHEET 11 OF 15

2

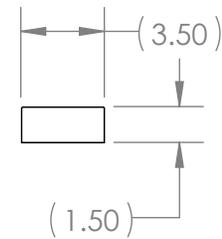
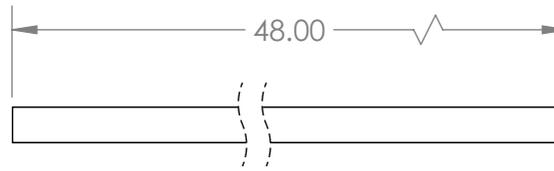
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TE-19108-11



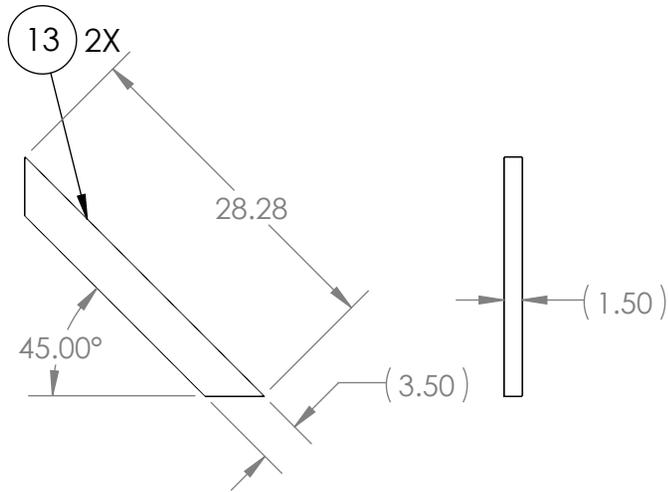
Notes:  
Material 2"x 4" Lumber Pine

TE-19108-12



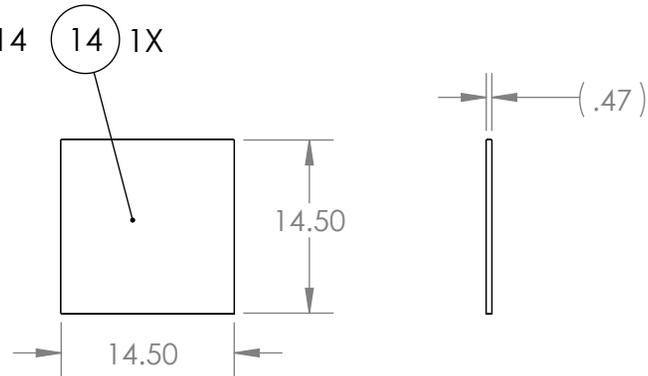
Notes:  
Material 2"x 4" Lumber Pine

TE-19108-13



Notes:  
Material 2"x 4" Lumber Pine

TE-19108-14



Note:  
Material 15/32" (1/2") A/C or CDX Plywood

B

B

A

A

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		ANGULAR: MACH ± 1° BEND ± 1°	MFG APPR.		
		TWO PLACE DECIMAL ± .01	Q.A.		
		THREE PLACE DECIMAL ± .001	COMMENTS:		
		INTERPRET GEOMETRIC TOLERANCING PER:			
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	NEXT ASSY	FINISH			
		USED ON			
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		DO NOT SCALE DRAWING			



TITLE:  
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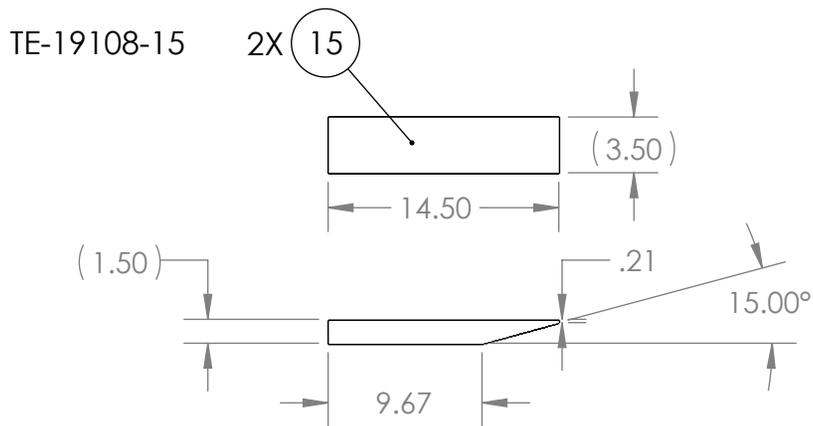
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**A TE-19108 A**

SCALE: 1:16 WEIGHT: SHEET 12 OF 15

2

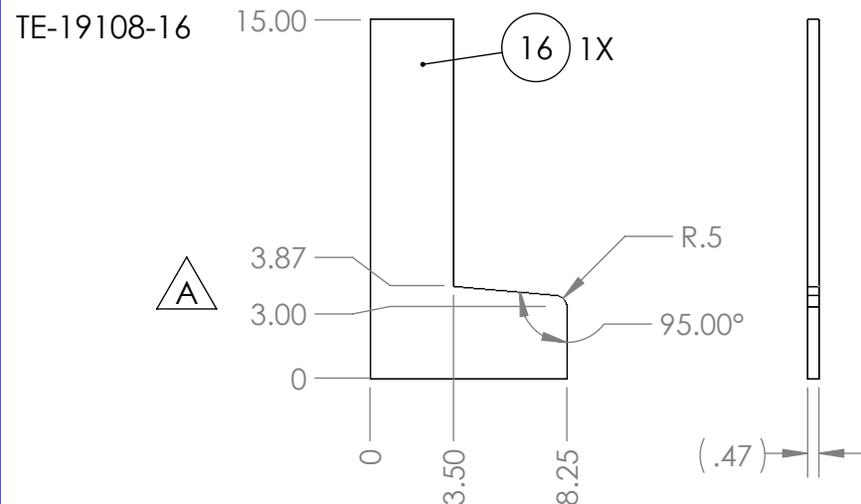
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2



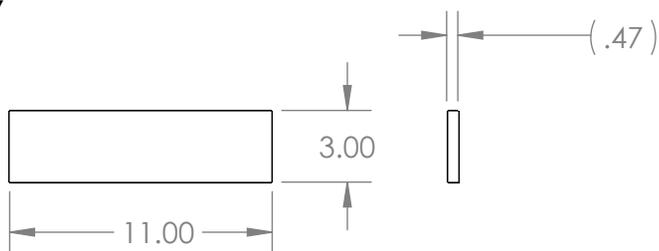
Note:  
Material 2"x4" Pine Lumber

1



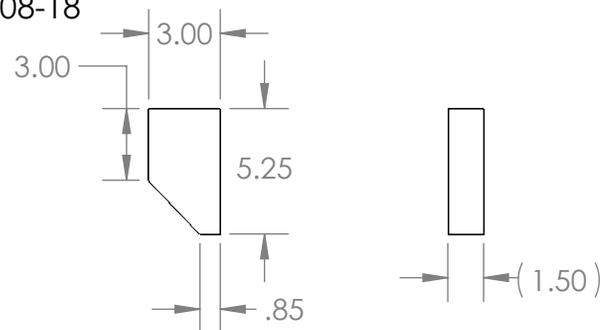
Note:  
Material 15/32"(1/2") A/C or CDX Plywood

TE-19108-17



Note:  
Material 15/32"(1/2") A/C or CDX Plywood

TE-19108-18



Note:  
Material 2"x4" Pine Lumber

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		DIMENSIONS ARE IN INCHES		DRAWN	
		TOLERANCES:		CHECKED	
		FRACTIONAL ± 1/16		ENG APPR.	
		ANGULAR: MACH ± 1° BEND ± 1°		MFG APPR.	
		TWO PLACE DECIMAL ± .01		Q.A.	
		THREE PLACE DECIMAL ± .001		COMMENTS:	
		INTERPRET GEOMETRIC TOLERANCING PER:			
		MATERIAL			
		FINISH			
NEXT ASSY	USED ON				
APPLICATION		DO NOT SCALE DRAWING			



TITLE:  
**Loading Station**

SIZE DWG. NO. REV  
**A** **TE-19108** **A**

SCALE: 1:16 WEIGHT: SHEET 13 OF 15

2

1

A

2

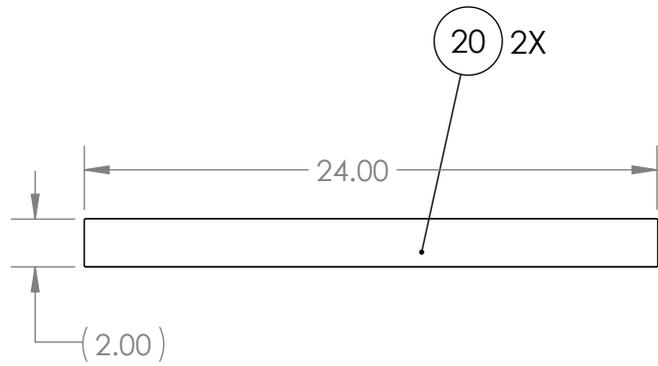
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TE-19108-20

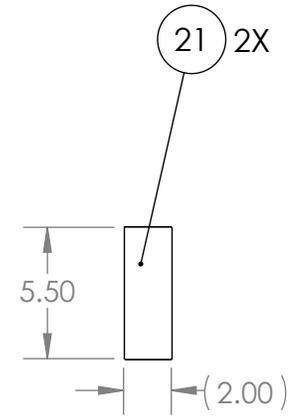
TE-19108-21

B

B

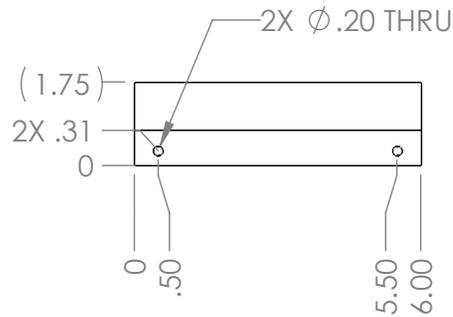


2" Hook Fastener



2" Vison Tape

TE-19108-19



Note:  
Material Frost King C35PH

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		ANGULAR: MACH ± 1° BEND ± 1°	MFG APPR.		
		TWO PLACE DECIMAL ± .01	Q.A.		
		THREE PLACE DECIMAL ± .001	COMMENTS:		
		INTERPRET GEOMETRIC TOLERANCING PER:			
		MATERIAL			
		FINISH			
NEXT ASSY	USED ON				
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TITLE:  
**Loading Station**

SIZE DWG. NO. REV  
**A TE-19108 A**

SCALE: 1:16 WEIGHT: SHEET 14 OF 15

2

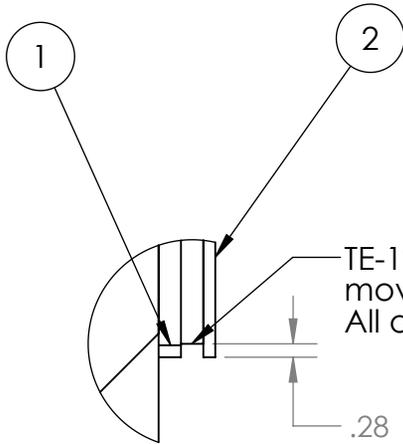
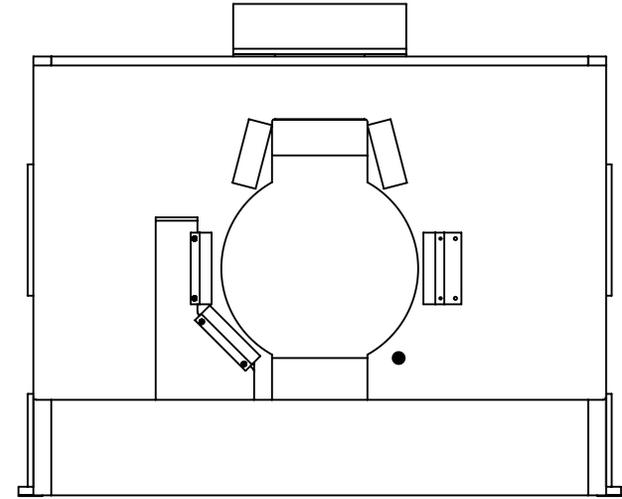
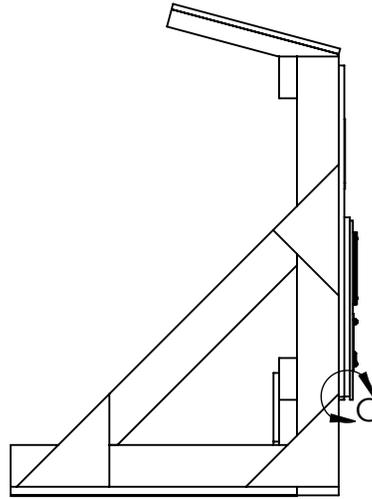
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2

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This page shows the change needed to revise an initial Rev TE-19108 to function as Rev A intends without having to remake TE-19108-16.



TE-19108-16 initial release version needs to be moved up 0.28" (~9/32") relative to the mating parts. All other alignment stays the same.

DETAIL C  
SCALE 1 : 4

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		THREE PLACE DECIMAL ± .001	COMMENTS:		
		INTERPRET GEOMETRIC TOLERANCING PER:			
		MATERIAL			
		FINISH			
NEXT ASSY	USED ON				
APPLICATION		DO NOT SCALE DRAWING			



TITLE:  
**Loading Station**

SIZE DWG. NO. REV  
**A TE-19108 A**

SCALE: 1:16 WEIGHT: SHEET 15 OF 15

B

B

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1