ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	TE-24301	Speaker Front Frame	1
2	TE-24302	Speaker Back Frame	1
3	TE-24307	Lower Side Wall	2
4	TE-24308	Floor Beam	2
5	TE-24309	April Tag Panel	1
6	TE-24310	Speaker Top Assembly	1
7	TE-24330	Subwoofer Assembly	1

UNLESS OTHERWISE SPECIFIED:

DIMENSIONS ARE IN INCHES
TOLERANCES:
FRACTIONAL ±1/16
ANGULAR: MACH ±1° BEND ±1°
TWO PLACE DECIMAL ±.13
THREE PLACE DECIMAL ±.125

MATERIAL/FINISH:

DO NOT SCALE DRAWING

TEAM	NAME	DATE
DRAWN	JO	12/11/2023

PROPRIETARY AND CONFIDENTIAL

THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF ***FIRST®***. ANY REPRODUCTION IN PART OR AS A WHOLE WITHOUT THE WRITTEN PERMISSION OF ***FIRST®*** IS PROHIBITED.

COMMENTS:

REMOVE ALL BURRS AND SHARP EDGES.

FIRST ROBOTICS COMPETITION

SOLIDWORKS Modeling Solutions Partner

TITLE: Team Element Speaker Assembly

SIZE	DWG. NO.	REV
C	TE-24300	

SCALE: 1:10 SHEET 1 OF 3

Step 1: Assemble (3) to (1) and (2) with wood screws, approximately centered height wise

Step 2: Assemble (4) to assembly, so that it is flush with (2) on the back

UNLESS OTHERWISE SPECIFIED:	TEAM	NAME	DATE
	DRAWN	JO	12/11/2023

DIMENSIONS ARE IN INCHES
TOLERANCES:
FRACTIONAL ±1/16
ANGULAR: MACH ±1° BEND ±1°
TWO PLACE DECIMAL ±.13
THREE PLACE DECIMAL ±.125

MATERIAL/FINISH:

DO NOT SCALE DRAWING

PROPRIETARY AND CONFIDENTIAL

THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF ***FIRST®***. ANY REPRODUCTION IN PART OR AS A WHOLE WITHOUT THE WRITTEN PERMISSION OF ***FIRST®*** IS PROHIBITED.

COMMENTS:

REMOVE ALL BURRS AND SHARP EDGES.

FIRST ROBOTICS COMPETITION

SOLIDWORKS Modeling Solutions Partner

TITLE: Team Element Speaker Assembly

SIZE	DWG. NO.	REV
C	TE-24300	

SCALE: 1:17 SHEET 2 OF 3

Step 3: Assemble (6) on the top of the assembly with either wood screws or bolts (holes will need to be added for bolts)

The crossbars on (6) should line up with the top beams on (1) and (2)

Step 4: Attach (5) to the assembly with wood screws as shown above. This part is for attaching printouts of April Tags

Step 5: Slide TE-24330 into place, as shown on front page

UNLESS OTHERWISE SPECIFIED:	TEAM	NAME	DATE
	DRAWN	JO	12/11/2023

DIMENSIONS ARE IN INCHES
TOLERANCES:
FRACTIONAL ±1/16
ANGULAR: MACH ±1° BEND ±1°
TWO PLACE DECIMAL ±.13
THREE PLACE DECIMAL ±.125

MATERIAL/FINISH:

DO NOT SCALE DRAWING

PROPRIETARY AND CONFIDENTIAL

THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF ***FIRST®***. ANY REPRODUCTION IN PART OR AS A WHOLE WITHOUT THE WRITTEN PERMISSION OF ***FIRST®*** IS PROHIBITED.

COMMENTS:
REMOVE ALL BURRS AND SHARP EDGES.

FIRST ROBOTICS COMPETITION
SOLIDWORKS Modeling Solutions Partner

TITLE: Team Element Speaker Assembly

SIZE	DWG. NO.	REV
C	TE-24300	

SCALE: 1:16 | SHEET 3 OF 3

Step 1: Assemble (1) and (2) together with wood screws as shown

Step 2: Assemble (3) to the frame with wood screws as shown

ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	TE-24303	Upright	2
2	TE-24304	Crossbar	3
3	TE-24305	Front Wall	1

UNLESS OTHERWISE SPECIFIED:

DIMENSIONS ARE IN INCHES
TOLERANCES:
FRACTIONAL ±1/16
ANGULAR: MACH ±1° BEND ±1°
TWO PLACE DECIMAL ±.13
THREE PLACE DECIMAL ±.125

MATERIAL/FINISH:

DO NOT SCALE DRAWING

TEAM	NAME	DATE
DRAWN	JO	12/11/2023

PROPRIETARY AND CONFIDENTIAL

THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF ***FIRST®***. ANY REPRODUCTION IN PART OR AS A WHOLE WITHOUT THE WRITTEN PERMISSION OF ***FIRST®*** IS PROHIBITED.

COMMENTS:
REMOVE ALL BURRS AND SHARP EDGES.

FIRST ROBOTICS COMPETITION
SOLIDWORKS Modeling Solutions Partner

TITLE:
Speaker Front Frame

SIZE	DWG. NO.	REV
C	TE-24301	

SCALE: 1:12 SHEET 1 OF 1

Step 1: Assemble (1) and (2) as shown with wood screws

Step 2: Assemble (3) to frame as shown with wood screws

ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	TE-24303	Upright	2
2	TE-24304	Crossbar	2
3	TE-24306	Rear Gusset Plate	2

UNLESS OTHERWISE SPECIFIED:

DIMENSIONS ARE IN INCHES
TOLERANCES:
FRACTIONAL ±1/16
ANGULAR: MACH ±1° BEND ±1°
TWO PLACE DECIMAL ±.13
THREE PLACE DECIMAL ±.125

MATERIAL/FINISH:

DO NOT SCALE DRAWING

TEAM	NAME	DATE
DRAWN	JO	12/11/2023

PROPRIETARY AND CONFIDENTIAL

THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF ***FIRST®***. ANY REPRODUCTION IN PART OR AS A WHOLE WITHOUT THE WRITTEN PERMISSION OF ***FIRST®*** IS PROHIBITED.

COMMENTS:

REMOVE ALL BURRS AND SHARP EDGES.

FIRST ROBOTICS COMPETITION

SOLIDWORKS Modeling Solutions Partner

TITLE:

Speaker Back Frame

SIZE	DWG. NO.	REV
C	TE-24302	

SCALE: 1:12 | SHEET 1 OF 1

UNLESS OTHERWISE SPECIFIED:

DIMENSIONS ARE IN INCHES
TOLERANCES:
FRACTIONAL ±1/16
ANGULAR: MACH ±1° BEND ±1°
TWO PLACE DECIMAL ±.13
THREE PLACE DECIMAL ±.125

MATERIAL/FINISH:

2x4 Lumber

DO NOT SCALE DRAWING

TEAM	NAME	DATE
DRAWN	JO	12/11/2023

PROPRIETARY AND CONFIDENTIAL

THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF ***FIRST®***. ANY REPRODUCTION IN PART OR AS A WHOLE WITHOUT THE WRITTEN PERMISSION OF ***FIRST®*** IS PROHIBITED.

COMMENTS:

REMOVE ALL BURRS AND SHARP EDGES.

FIRST ROBOTICS COMPETITION

SOLIDWORKS Modeling Solutions Partner

TITLE:

Upright

SIZE	DWG. NO.	REV
C	TE-24303	

SCALE: 1:5 SHEET 1 OF 1

UNLESS OTHERWISE SPECIFIED:

DIMENSIONS ARE IN INCHES
TOLERANCES:
FRACTIONAL ±1/16
ANGULAR: MACH ±1° BEND ±1°
TWO PLACE DECIMAL ±.13
THREE PLACE DECIMAL ±.125

MATERIAL/FINISH:

2x4 Lumber

DO NOT SCALE DRAWING

TEAM	NAME	DATE
DRAWN	JO	12/11/2023

PROPRIETARY AND CONFIDENTIAL

THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF ***FIRST®***. ANY REPRODUCTION IN PART OR AS A WHOLE WITHOUT THE WRITTEN PERMISSION OF ***FIRST®*** IS PROHIBITED.

COMMENTS:

REMOVE ALL BURRS AND SHARP EDGES.

FIRST ROBOTICS COMPETITION

SOLIDWORKS Modeling Solutions Partner

TITLE:

Crossbar

SIZE	DWG. NO.	REV
C	TE-24304	

SCALE: 1:3 SHEET 1 OF 1

UNLESS OTHERWISE SPECIFIED:

DIMENSIONS ARE IN INCHES
TOLERANCES:
FRACTIONAL ±1/16
ANGULAR: MACH ±1° BEND ±1°
TWO PLACE DECIMAL ±.13
THREE PLACE DECIMAL ±.125

MATERIAL/FINISH:

1/2" Plywood (15/32")

DO NOT SCALE DRAWING

TEAM	NAME	DATE
DRAWN	JO	12/11/2023

PROPRIETARY AND CONFIDENTIAL

THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF ***FIRST®***. ANY REPRODUCTION IN PART OR AS A WHOLE WITHOUT THE WRITTEN PERMISSION OF ***FIRST®*** IS PROHIBITED.

COMMENTS:

REMOVE ALL BURRS AND SHARP EDGES.

FIRST ROBOTICS COMPETITION

SOLIDWORKS Modeling Solutions Partner

TITLE:

Front Wall

SIZE	DWG. NO.	REV
C	TE-24305	

SCALE: 1:5 SHEET 1 OF 1

UNLESS OTHERWISE SPECIFIED:	TEAM	NAME	DATE
	DRAWN	JO	12/11/2023

DIMENSIONS ARE IN INCHES
TOLERANCES:
FRACTIONAL ±1/16
ANGULAR: MACH ±1° BEND ±1°
TWO PLACE DECIMAL ±.13
THREE PLACE DECIMAL ±.125

MATERIAL/FINISH:

1/2" Plywood (15/32")

DO NOT SCALE DRAWING

PROPRIETARY AND CONFIDENTIAL

THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF ***FIRST®***. ANY REPRODUCTION IN PART OR AS A WHOLE WITHOUT THE WRITTEN PERMISSION OF ***FIRST®*** IS PROHIBITED.

COMMENTS:

REMOVE ALL BURRS AND SHARP EDGES.

FIRST ROBOTICS COMPETITION

SOLIDWORKS Modeling Solutions Partner

TITLE:

Rear Gusset Plate

SIZE	DWG. NO.	REV
C	TE-24306	

SCALE: 1:4 | SHEET 1 OF 1

UNLESS OTHERWISE SPECIFIED:

DIMENSIONS ARE IN INCHES
TOLERANCES:
FRACTIONAL ±1/16
ANGULAR: MACH ±1° BEND ±1°
TWO PLACE DECIMAL ±.13
THREE PLACE DECIMAL ±.125

MATERIAL/FINISH:

1/2" Plywood (15/32")

DO NOT SCALE DRAWING

TEAM	NAME	DATE
DRAWN	JO	12/6/2023

PROPRIETARY AND CONFIDENTIAL

THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF ***FIRST®***. ANY REPRODUCTION IN PART OR AS A WHOLE WITHOUT THE WRITTEN PERMISSION OF ***FIRST®*** IS PROHIBITED.

COMMENTS:

REMOVE ALL BURRS AND SHARP EDGES.

FIRST ROBOTICS COMPETITION

SOLIDWORKS Modeling Solutions Partner

TITLE:

Lower Side Wall

SIZE	DWG. NO.	REV
C	TE-24307	

SCALE: 1:5 SHEET 1 OF 1

UNLESS OTHERWISE SPECIFIED:

DIMENSIONS ARE IN INCHES
TOLERANCES:
FRACTIONAL ±1/16
ANGULAR: MACH ±1° BEND ±1°
TWO PLACE DECIMAL ±.13
THREE PLACE DECIMAL ±.125

MATERIAL/FINISH:

2x4 Lumber

DO NOT SCALE DRAWING

TEAM	NAME	DATE
DRAWN	JO	12/6/2023

PROPRIETARY AND CONFIDENTIAL

THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF ***FIRST®***. ANY REPRODUCTION IN PART OR AS A WHOLE WITHOUT THE WRITTEN PERMISSION OF ***FIRST®*** IS PROHIBITED.

COMMENTS:

REMOVE ALL BURRS AND SHARP EDGES.

FIRST ROBOTICS COMPETITION

SOLIDWORKS Modeling Solutions Partner

TITLE:

Floor Beam

SIZE	DWG. NO.	REV
C	TE-24308	

SCALE: 1:4 SHEET 1 OF 1

UNLESS OTHERWISE SPECIFIED:	TEAM	NAME	DATE
	DRAWN	JO	12/6/2023

DIMENSIONS ARE IN INCHES
TOLERANCES:
FRACTIONAL ±1/16
ANGULAR: MACH ±1° BEND ±1°
TWO PLACE DECIMAL ±.13
THREE PLACE DECIMAL ±.125

MATERIAL/FINISH:

1/2" Plywood (15/32")

DO NOT SCALE DRAWING

PROPRIETARY AND CONFIDENTIAL

THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF ***FIRST®***. ANY REPRODUCTION IN PART OR AS A WHOLE WITHOUT THE WRITTEN PERMISSION OF ***FIRST®*** IS PROHIBITED.

COMMENTS:

REMOVE ALL BURRS AND SHARP EDGES.

FIRST ROBOTICS COMPETITION

SOLIDWORKS Modeling Solutions Partner

TITLE:

April Tag Panel

SIZE	DWG. NO.	REV
C	TE-24309	

SCALE: 1:5 SHEET 1 OF 1

ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	TE-24311	Speaker Top Subassembly 1	1
2	TE-24312	Speaker Top Subassembly 2	1
3	TE-24313	Speaker Top Subassembly 3	1
4	TE-24314	Speaker Top Subassembly 4	1
5	TE-24315	Speaker Top Subassembly 5	1
6	TE-24316	Speaker Top Side Panel	2
7	TE-24326	Top Flat Frame	1

UNLESS OTHERWISE SPECIFIED:

DIMENSIONS ARE IN INCHES
TOLERANCES:
FRACTIONAL ±1/16
ANGULAR: MACH ±1° BEND ±1°
TWO PLACE DECIMAL ±.13
THREE PLACE DECIMAL ±.125

MATERIAL/FINISH:

DO NOT SCALE DRAWING

TEAM	NAME	DATE
DRAWN	JO	12/11/2023

PROPRIETARY AND CONFIDENTIAL

THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF ***FIRST®***. ANY REPRODUCTION IN PART OR AS A WHOLE WITHOUT THE WRITTEN PERMISSION OF ***FIRST®*** IS PROHIBITED.

COMMENTS:
REMOVE ALL BURRS AND SHARP EDGES.

FIRST ROBOTICS COMPETITION
SOLIDWORKS Modeling Solutions Partner

TITLE:
Speaker Top Assembly

SIZE	DWG. NO.	REV
C	TE-24310	

SCALE: 1:9 SHEET 1 OF 2

Step 1: Attach 1 2 3 4 and 5 to 6 with wood screws, with each being roughly centered on the corresponding edge of 6

Step 2: Repeat Step 1 on the opposite side

Step 3: Attach 7 to the assembly with wood screws so that it is lined up with the bottom corner of 6

UNLESS OTHERWISE SPECIFIED:	TEAM	NAME	DATE
	DRAWN	JO	12/11/2023

DIMENSIONS ARE IN INCHES
TOLERANCES:
FRACTIONAL ±1/16
ANGULAR: MACH ±1° BEND ±1°
TWO PLACE DECIMAL ±.13
THREE PLACE DECIMAL ±.125

MATERIAL/FINISH:

DO NOT SCALE DRAWING

PROPRIETARY AND CONFIDENTIAL

THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF ***FIRST®***. ANY REPRODUCTION IN PART OR AS A WHOLE WITHOUT THE WRITTEN PERMISSION OF ***FIRST®*** IS PROHIBITED.

COMMENTS:
REMOVE ALL BURRS AND SHARP EDGES.

FIRST ROBOTICS COMPETITION
SOLIDWORKS Modeling Solutions Partner

TITLE:
Speaker Top Assembly

SIZE	DWG. NO.	REV
C	TE-24310	

SCALE: 1:8 SHEET 2 OF 2

Notes:
Assemble as shown with wood screws

ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	TE-24317	Top Panel 1	1
2	TE-24318	Corner Beam 1	2

UNLESS OTHERWISE SPECIFIED:

DIMENSIONS ARE IN INCHES
TOLERANCES:
FRACTIONAL ±1/16
ANGULAR: MACH ±1° BEND ±1°
TWO PLACE DECIMAL ±.13
THREE PLACE DECIMAL ±.125

MATERIAL/FINISH:

DO NOT SCALE DRAWING

TEAM	NAME	DATE
DRAWN	JO	12/11/2023

PROPRIETARY AND CONFIDENTIAL

THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF ***FIRST®***. ANY REPRODUCTION IN PART OR AS A WHOLE WITHOUT THE WRITTEN PERMISSION OF ***FIRST®*** IS PROHIBITED.

COMMENTS:
REMOVE ALL BURRS AND SHARP EDGES.

FIRST ROBOTICS COMPETITION
SOLIDWORKS Modeling Solutions Partner

TITLE:
Speaker Top Subassembly 1

SIZE	DWG. NO.	REV
C	TE-24311	

SCALE: 1:4 SHEET 1 OF 1

Notes:
Assemble as shown with wood screws

ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	TE-24319	Top Panel 2	1
2	TE-24320	Corner Beam 2	2

UNLESS OTHERWISE SPECIFIED:

DIMENSIONS ARE IN INCHES
TOLERANCES:
FRACTIONAL ±1/16
ANGULAR: MACH ±1° BEND ±1°
TWO PLACE DECIMAL ±.13
THREE PLACE DECIMAL ±.125

MATERIAL/FINISH:

DO NOT SCALE DRAWING

TEAM	NAME	DATE
DRAWN	JO	12/11/2023

PROPRIETARY AND CONFIDENTIAL

THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF ***FIRST®***. ANY REPRODUCTION IN PART OR AS A WHOLE WITHOUT THE WRITTEN PERMISSION OF ***FIRST®*** IS PROHIBITED.

COMMENTS:
REMOVE ALL BURRS AND SHARP EDGES.

FIRST ROBOTICS COMPETITION
SOLIDWORKS Modeling Solutions Partner

TITLE:
Speaker Top Subassembly 2

SIZE	DWG. NO.	REV
C	TE-24312	

SCALE: 1:4 SHEET 1 OF 1

Notes:
Assemble as shown with wood screws

ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	TE-24321	Top Panel 3	1
2	TE-24322	Corner Beam 3	2

UNLESS OTHERWISE SPECIFIED:

DIMENSIONS ARE IN INCHES
TOLERANCES:
FRACTIONAL ±1/16
ANGULAR: MACH ±1° BEND ±1°
TWO PLACE DECIMAL ±.13
THREE PLACE DECIMAL ±.125

MATERIAL/FINISH:

DO NOT SCALE DRAWING

TEAM	NAME	DATE
DRAWN	JO	12/11/2023

PROPRIETARY AND CONFIDENTIAL

THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF ***FIRST®***. ANY REPRODUCTION IN PART OR AS A WHOLE WITHOUT THE WRITTEN PERMISSION OF ***FIRST®*** IS PROHIBITED.

COMMENTS:
REMOVE ALL BURRS AND SHARP EDGES.

FIRST ROBOTICS COMPETITION
SOLIDWORKS Modeling Solutions Partner

TITLE:
Speaker Top Subassembly 3

SIZE	DWG. NO.	REV
C	TE-24313	

SCALE: 1:4 | SHEET 1 OF 1

Notes:
Assemble as shown with wood screws

ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	TE-24323	Top Panel 4	1
2	TE-24324	Corner Beam 4	2

UNLESS OTHERWISE SPECIFIED:

DIMENSIONS ARE IN INCHES
TOLERANCES:
FRACTIONAL ±1/16
ANGULAR: MACH ±1° BEND ±1°
TWO PLACE DECIMAL ±.13
THREE PLACE DECIMAL ±.125

MATERIAL/FINISH:

DO NOT SCALE DRAWING

TEAM	NAME	DATE
DRAWN	JO	12/11/2023

PROPRIETARY AND CONFIDENTIAL

THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF ***FIRST®***. ANY REPRODUCTION IN PART OR AS A WHOLE WITHOUT THE WRITTEN PERMISSION OF ***FIRST®*** IS PROHIBITED.

COMMENTS:
REMOVE ALL BURRS AND SHARP EDGES.

FIRST ROBOTICS COMPETITION
SOLIDWORKS Modeling Solutions Partner

TITLE:
Speaker Top Subassembly 4

SIZE	DWG. NO.	REV
C	TE-24314	

SCALE: 1:4 SHEET 1 OF 1

Notes:
Assemble with wood screws as shown

ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	TE-24318	Corner Beam 1	2
2	TE-24325	Top Panel 5	1

UNLESS OTHERWISE SPECIFIED:

DIMENSIONS ARE IN INCHES
TOLERANCES:
FRACTIONAL ±1/16
ANGULAR: MACH ±1° BEND ±1°
TWO PLACE DECIMAL ±.13
THREE PLACE DECIMAL ±.125

MATERIAL/FINISH:

DO NOT SCALE DRAWING

TEAM	NAME	DATE
DRAWN	JO	12/11/2023

PROPRIETARY AND CONFIDENTIAL

THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF ***FIRST®***. ANY REPRODUCTION IN PART OR AS A WHOLE WITHOUT THE WRITTEN PERMISSION OF ***FIRST®*** IS PROHIBITED.

COMMENTS:
REMOVE ALL BURRS AND SHARP EDGES.

FIRST ROBOTICS COMPETITION
SOLIDWORKS Modeling Solutions Partner

TITLE:
Speaker Top Subassembly 5

SIZE	DWG. NO.	REV
C	TE-24315	

SCALE: 1:4 | SHEET 1 OF 1

See Sheet 2 for cutting guide

UNLESS OTHERWISE SPECIFIED:	TEAM	NAME	DATE
	DRAWN	JO	12/11/2023

DIMENSIONS ARE IN INCHES
TOLERANCES:
FRACTIONAL ±1/16
ANGULAR: MACH ±1° BEND ±1°
TWO PLACE DECIMAL ±.13
THREE PLACE DECIMAL ±.125

MATERIAL/FINISH:

1/2" Plywood (15/32")

DO NOT SCALE DRAWING

PROPRIETARY AND CONFIDENTIAL

THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF ***FIRST®***. ANY REPRODUCTION IN PART OR AS A WHOLE WITHOUT THE WRITTEN PERMISSION OF ***FIRST®*** IS PROHIBITED.

COMMENTS:

REMOVE ALL BURRS AND SHARP EDGES.

FIRST ROBOTICS COMPETITION

SOLIDWORKS Modeling Solutions Partner

TITLE:

Speaker Top Side Panel

SIZE	DWG. NO.	REV
C	TE-24316	

SCALE: 1:4 | SHEET 1 OF 2

UNLESS OTHERWISE SPECIFIED:

DIMENSIONS ARE IN INCHES
TOLERANCES:
FRACTIONAL ±1/16
ANGULAR: MACH ±1° BEND ±1°
TWO PLACE DECIMAL ±.13
THREE PLACE DECIMAL ±.125

MATERIAL/FINISH:

1/2" Plywood (15/32")

DO NOT SCALE DRAWING

TEAM	NAME	DATE
DRAWN	JO	12/11/2023

PROPRIETARY AND CONFIDENTIAL

THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF ***FIRST®***. ANY REPRODUCTION IN PART OR AS A WHOLE WITHOUT THE WRITTEN PERMISSION OF ***FIRST®*** IS PROHIBITED.

COMMENTS:

REMOVE ALL BURRS AND SHARP EDGES.

FIRST ROBOTICS COMPETITION

SOLIDWORKS Modeling Solutions Partner

TITLE:

Speaker Top Side Panel

SIZE	DWG. NO.	REV
C	TE-24316	

SCALE: 1:5.5 SHEET 2 OF 2

UNLESS OTHERWISE SPECIFIED:	TEAM	NAME	DATE
	DRAWN	JO	12/11/2023

DIMENSIONS ARE IN INCHES
TOLERANCES:
FRACTIONAL ±1/16
ANGULAR: MACH ±1° BEND ±1°
TWO PLACE DECIMAL ±.13
THREE PLACE DECIMAL ±.125

MATERIAL/FINISH:

1/8" Hardboard

DO NOT SCALE DRAWING

PROPRIETARY AND CONFIDENTIAL

THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF ***FIRST®***. ANY REPRODUCTION IN PART OR AS A WHOLE WITHOUT THE WRITTEN PERMISSION OF ***FIRST®*** IS PROHIBITED.

COMMENTS:

REMOVE ALL BURRS AND SHARP EDGES.

FIRST ROBOTICS COMPETITION

SOLIDWORKS Modeling Solutions Partner

TITLE:

Top Panel 1

SIZE	DWG. NO.	REV
C	TE-24317	

SCALE: 1:3 SHEET 1 OF 1

UNLESS OTHERWISE SPECIFIED:

DIMENSIONS ARE IN INCHES
TOLERANCES:
FRACTIONAL ±1/16
ANGULAR: MACH ±1° BEND ±1°
TWO PLACE DECIMAL ±.13
THREE PLACE DECIMAL ±.125

MATERIAL/FINISH:

2x4 Lumber

DO NOT SCALE DRAWING

TEAM	NAME	DATE
DRAWN	JO	12/11/2023

PROPRIETARY AND CONFIDENTIAL

THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF ***FIRST®***. ANY REPRODUCTION IN PART OR AS A WHOLE WITHOUT THE WRITTEN PERMISSION OF ***FIRST®*** IS PROHIBITED.

COMMENTS:

REMOVE ALL BURRS AND SHARP EDGES.

FIRST ROBOTICS COMPETITION

SOLIDWORKS Modeling Solutions Partner

TITLE:

Corner Beam 1

SIZE	DWG. NO.	REV
C	TE-24318	

SCALE: 1:1 SHEET 1 OF 1

UNLESS OTHERWISE SPECIFIED:

DIMENSIONS ARE IN INCHES
TOLERANCES:
FRACTIONAL ±1/16
ANGULAR: MACH ±1° BEND ±1°
TWO PLACE DECIMAL ±.13
THREE PLACE DECIMAL ±.125

MATERIAL/FINISH:

1/8" Hardboard

DO NOT SCALE DRAWING

TEAM	NAME	DATE
DRAWN	JO	12/11/2023

PROPRIETARY AND CONFIDENTIAL

THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF ***FIRST®***. ANY REPRODUCTION IN PART OR AS A WHOLE WITHOUT THE WRITTEN PERMISSION OF ***FIRST®*** IS PROHIBITED.

COMMENTS:

REMOVE ALL BURRS AND SHARP EDGES.

FIRST ROBOTICS COMPETITION

SOLIDWORKS Modeling Solutions Partner

TITLE:

Top Panel 2

SIZE	DWG. NO.	REV
C	TE-24319	

SCALE: 1:5 SHEET 1 OF 1

UNLESS OTHERWISE SPECIFIED:

DIMENSIONS ARE IN INCHES
TOLERANCES:
FRACTIONAL ±1/16
ANGULAR: MACH ±1° BEND ±1°
TWO PLACE DECIMAL ±.13
THREE PLACE DECIMAL ±.125

MATERIAL/FINISH:

2x4 Lumber

DO NOT SCALE DRAWING

TEAM	NAME	DATE
DRAWN	JO	12/11/2023

PROPRIETARY AND CONFIDENTIAL

THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF ***FIRST®***. ANY REPRODUCTION IN PART OR AS A WHOLE WITHOUT THE WRITTEN PERMISSION OF ***FIRST®*** IS PROHIBITED.

COMMENTS:

REMOVE ALL BURRS AND SHARP EDGES.

FIRST ROBOTICS COMPETITION

SOLIDWORKS Modeling Solutions Partner

TITLE:

Corner Beam 2

SIZE	DWG. NO.	REV
C	TE-24320	

SCALE: 1:1.5 | SHEET 1 OF 1

UNLESS OTHERWISE SPECIFIED:	TEAM	NAME	DATE
	DRAWN	JO	12/11/2023

DIMENSIONS ARE IN INCHES
TOLERANCES:
FRACTIONAL ±1/16
ANGULAR: MACH ±1° BEND ±1°
TWO PLACE DECIMAL ±.13
THREE PLACE DECIMAL ±.125

MATERIAL/FINISH:

1/8" Hardboard

DO NOT SCALE DRAWING

PROPRIETARY AND CONFIDENTIAL

THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF ***FIRST®***. ANY REPRODUCTION IN PART OR AS A WHOLE WITHOUT THE WRITTEN PERMISSION OF ***FIRST®*** IS PROHIBITED.

COMMENTS:

REMOVE ALL BURRS AND SHARP EDGES.

FIRST ROBOTICS COMPETITION

SOLIDWORKS Modeling Solutions Partner

TITLE:

Top Panel 3

SIZE	DWG. NO.	REV
C	TE-24321	

SCALE: 1:4 SHEET 1 OF 1

UNLESS OTHERWISE SPECIFIED:

DIMENSIONS ARE IN INCHES
TOLERANCES:
FRACTIONAL ±1/16
ANGULAR: MACH ±1° BEND ±1°
TWO PLACE DECIMAL ±.13
THREE PLACE DECIMAL ±.125

MATERIAL/FINISH:

2x4 Lumber

DO NOT SCALE DRAWING

TEAM	NAME	DATE
DRAWN	JO	12/11/2023

PROPRIETARY AND CONFIDENTIAL

THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF ***FIRST®***. ANY REPRODUCTION IN PART OR AS A WHOLE WITHOUT THE WRITTEN PERMISSION OF ***FIRST®*** IS PROHIBITED.

COMMENTS:

REMOVE ALL BURRS AND SHARP EDGES.

FIRST ROBOTICS COMPETITION

SOLIDWORKS Modeling Solutions Partner

TITLE:

Corner Beam 3

SIZE	DWG. NO.	REV
C	TE-24322	

SCALE: 1:1.5 SHEET 1 OF 1

UNLESS OTHERWISE SPECIFIED:	TEAM	NAME	DATE
	DRAWN	JO	12/11/2023

DIMENSIONS ARE IN INCHES
TOLERANCES:
FRACTIONAL ±1/16
ANGULAR: MACH ±1° BEND ±1°
TWO PLACE DECIMAL ±.13
THREE PLACE DECIMAL ±.125

MATERIAL/FINISH:

1/8" Hardboard

DO NOT SCALE DRAWING

PROPRIETARY AND CONFIDENTIAL

THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF ***FIRST®***. ANY REPRODUCTION IN PART OR AS A WHOLE WITHOUT THE WRITTEN PERMISSION OF ***FIRST®*** IS PROHIBITED.

COMMENTS:

REMOVE ALL BURRS AND SHARP EDGES.

FIRST ROBOTICS COMPETITION
SOLIDWORKS Modeling Solutions Partner

TITLE:

Top Panel 4

SIZE	DWG. NO.	REV
C	TE-24323	

SCALE: 1:3.5 SHEET 1 OF 1

UNLESS OTHERWISE SPECIFIED:	TEAM	NAME	DATE
	DRAWN	JO	12/11/2023

DIMENSIONS ARE IN INCHES
TOLERANCES:
FRACTIONAL ±1/16
ANGULAR: MACH ±1° BEND ±1°
TWO PLACE DECIMAL ±.13
THREE PLACE DECIMAL ±.125

MATERIAL/FINISH:

2x4 Lumber

DO NOT SCALE DRAWING

PROPRIETARY AND CONFIDENTIAL

THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF ***FIRST®***. ANY REPRODUCTION IN PART OR AS A WHOLE WITHOUT THE WRITTEN PERMISSION OF ***FIRST®*** IS PROHIBITED.

COMMENTS:

REMOVE ALL BURRS AND SHARP EDGES.

FIRST ROBOTICS COMPETITION

SOLIDWORKS Modeling Solutions Partner

TITLE:

Corner Beam 4

SIZE	DWG. NO.	REV
C	TE-24324	

SCALE: 1:1 SHEET 1 OF 1

UNLESS OTHERWISE SPECIFIED:

DIMENSIONS ARE IN INCHES
TOLERANCES:
FRACTIONAL ±1/16
ANGULAR: MACH ±1° BEND ±1°
TWO PLACE DECIMAL ±.13
THREE PLACE DECIMAL ±.125

MATERIAL/FINISH:

1/8" Hardboard

DO NOT SCALE DRAWING

TEAM	NAME	DATE
DRAWN	JO	12/11/2023

PROPRIETARY AND CONFIDENTIAL

THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF ***FIRST®***. ANY REPRODUCTION IN PART OR AS A WHOLE WITHOUT THE WRITTEN PERMISSION OF ***FIRST®*** IS PROHIBITED.

COMMENTS:

REMOVE ALL BURRS AND SHARP EDGES.

FIRST ROBOTICS COMPETITION

SOLIDWORKS Modeling Solutions Partner

TITLE:

Top Panel 5

SIZE	DWG. NO.	REV
C	TE-24325	

SCALE: 1:4 | SHEET 1 OF 1

Notes:
Assemble as shown with wood screws

ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	TE-24304	Crossbar	2
2	TE-24327	Top Side Rail	2

UNLESS OTHERWISE SPECIFIED:

DIMENSIONS ARE IN INCHES
TOLERANCES:
FRACTIONAL ±1/16
ANGULAR: MACH ±1° BEND ±1°
TWO PLACE DECIMAL ±.13
THREE PLACE DECIMAL ±.125

MATERIAL/FINISH:

DO NOT SCALE DRAWING

TEAM	NAME	DATE
DRAWN	JO	12/11/2023

PROPRIETARY AND CONFIDENTIAL

THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF ***FIRST®***. ANY REPRODUCTION IN PART OR AS A WHOLE WITHOUT THE WRITTEN PERMISSION OF ***FIRST®*** IS PROHIBITED.

COMMENTS:
REMOVE ALL BURRS AND SHARP EDGES.

FIRST ROBOTICS COMPETITION
SOLIDWORKS Modeling Solutions Partner

TITLE:
Top Flat Frame

SIZE	DWG. NO.	REV
C	TE-24326	

SCALE: 1:3 | SHEET 1 OF 1

UNLESS OTHERWISE SPECIFIED:

DIMENSIONS ARE IN INCHES
TOLERANCES:
FRACTIONAL ±1/16
ANGULAR: MACH ±1° BEND ±1°
TWO PLACE DECIMAL ±.13
THREE PLACE DECIMAL ±.125

MATERIAL/FINISH:

2x4 Lumber

DO NOT SCALE DRAWING

TEAM	NAME	DATE
DRAWN	JO	12/11/2023

PROPRIETARY AND CONFIDENTIAL

THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF ***FIRST®***. ANY REPRODUCTION IN PART OR AS A WHOLE WITHOUT THE WRITTEN PERMISSION OF ***FIRST®*** IS PROHIBITED.

COMMENTS:

REMOVE ALL BURRS AND SHARP EDGES.

FIRST ROBOTICS COMPETITION

SOLIDWORKS Modeling Solutions Partner

TITLE:

Top Side Rail

SIZE	DWG. NO.	REV
C	TE-24327	

SCALE: 1:2 | SHEET 1 OF 1

ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	TE-24331	Subwoofer Corner Panel	4
2	TE-24332	Subwoofer Frame	3

Notes:

Assemble as shown with wood screws. 2 may need to be disassembled slightly to access some screw head locations.

UNLESS OTHERWISE SPECIFIED:

DIMENSIONS ARE IN INCHES
TOLERANCES:
FRACTIONAL ±1/16
ANGULAR: MACH ±1° BEND ±1°
TWO PLACE DECIMAL ±.13
THREE PLACE DECIMAL ±.125

MATERIAL/FINISH:

DO NOT SCALE DRAWING

TEAM	NAME	DATE
DRAWN	JO	12/11/2023

PROPRIETARY AND CONFIDENTIAL

THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF ***FIRST®***. ANY REPRODUCTION IN PART OR AS A WHOLE WITHOUT THE WRITTEN PERMISSION OF ***FIRST®*** IS PROHIBITED.

COMMENTS:

REMOVE ALL BURRS AND SHARP EDGES.

FIRST ROBOTICS COMPETITION

SOLIDWORKS Modeling Solutions Partner

TITLE:

Subwoofer Assembly

SIZE	DWG. NO.	REV
C	TE-24330	

SCALE: 1:5 SHEET 1 OF 1

See Sheet 2 for cutting guide

UNLESS OTHERWISE SPECIFIED:

DIMENSIONS ARE IN INCHES
TOLERANCES:
FRACTIONAL ±1/16
ANGULAR: MACH ±1° BEND ±1°
TWO PLACE DECIMAL ±.13
THREE PLACE DECIMAL ±.125

MATERIAL/FINISH:

1/2" Plywood (15/32")

DO NOT SCALE DRAWING

TEAM	NAME	DATE
DRAWN	JO	12/6/2023

PROPRIETARY AND CONFIDENTIAL

THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF ***FIRST®***. ANY REPRODUCTION IN PART OR AS A WHOLE WITHOUT THE WRITTEN PERMISSION OF ***FIRST®*** IS PROHIBITED.

COMMENTS:

REMOVE ALL BURRS AND SHARP EDGES.

FIRST ROBOTICS COMPETITION

SOLIDWORKS Modeling Solutions Partner

TITLE:

Subwoofer Corner Panel

SIZE	DWG. NO.	REV
C	TE-24331	

SCALE: 1:2

SHEET 1 OF 2

Step 1: Cut a 10.25" x 15" rectangle out of 1/2" plywood

Step 2: Mark the 3 points above along the edges of the panel from step 1

Step 3: Connect the 3 points from Step 2 to create two lines, and then cut along these lines

UNLESS OTHERWISE SPECIFIED:

DIMENSIONS ARE IN INCHES
TOLERANCES:
FRACTIONAL ±1/16
ANGULAR: MACH ±1° BEND ±1°
TWO PLACE DECIMAL ±.13
THREE PLACE DECIMAL ±.125

MATERIAL/FINISH:

1/2" Plywood (15/32")

DO NOT SCALE DRAWING

TEAM	NAME	DATE
DRAWN	JO	12/6/2023

PROPRIETARY AND CONFIDENTIAL

THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF ***FIRST®***. ANY REPRODUCTION IN PART OR AS A WHOLE WITHOUT THE WRITTEN PERMISSION OF ***FIRST®*** IS PROHIBITED.

COMMENTS:

REMOVE ALL BURRS AND SHARP EDGES.

FIRST ROBOTICS COMPETITION

SOLIDWORKS Modeling Solutions Partner

TITLE:

Subwoofer Corner Panel

SIZE	DWG. NO.	REV
C	TE-24331	

SCALE: 1:2 SHEET 2 OF 2

Notes:
Assemble as shown with wood screws

ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	TE-24333	Subwoofer Long Beam	2
2	TE-24334	Subwoofer Short Beam	2

UNLESS OTHERWISE SPECIFIED:

DIMENSIONS ARE IN INCHES
TOLERANCES:
FRACTIONAL ±1/16
ANGULAR: MACH ±1° BEND ±1°
TWO PLACE DECIMAL ±.13
THREE PLACE DECIMAL ±.125

MATERIAL/FINISH:

DO NOT SCALE DRAWING

TEAM	NAME	DATE
DRAWN	JO	12/11/2023

PROPRIETARY AND CONFIDENTIAL

THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF ***FIRST®***. ANY REPRODUCTION IN PART OR AS A WHOLE WITHOUT THE WRITTEN PERMISSION OF ***FIRST®*** IS PROHIBITED.

COMMENTS:
REMOVE ALL BURRS AND SHARP EDGES.

FIRST ROBOTICS COMPETITION
SOLIDWORKS Modeling Solutions Partner

TITLE:
Subwoofer Frame

SIZE	DWG. NO.	REV
C	TE-24332	

SCALE: 1:4 SHEET 1 OF 1

UNLESS OTHERWISE SPECIFIED:	TEAM	NAME	DATE
	DRAWN	JO	12/11/2023

DIMENSIONS ARE IN INCHES
TOLERANCES:
FRACTIONAL ±1/16
ANGULAR: MACH ±1° BEND ±1°
TWO PLACE DECIMAL ±.13
THREE PLACE DECIMAL ±.125

MATERIAL/FINISH:

2x4 Lumber

DO NOT SCALE DRAWING

PROPRIETARY AND CONFIDENTIAL

THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF ***FIRST®***. ANY REPRODUCTION IN PART OR AS A WHOLE WITHOUT THE WRITTEN PERMISSION OF ***FIRST®*** IS PROHIBITED.

COMMENTS:

REMOVE ALL BURRS AND SHARP EDGES.

FIRST ROBOTICS COMPETITION

SOLIDWORKS Modeling Solutions Partner

TITLE:

Subwoofer Long Beam

SIZE	DWG. NO.	REV
C	TE-24333	

SCALE: 1:3 SHEET 1 OF 1

UNLESS OTHERWISE SPECIFIED:	TEAM	NAME	DATE
	DRAWN	JO	12/11/2023

DIMENSIONS ARE IN INCHES
TOLERANCES:
FRACTIONAL ±1/16
ANGULAR: MACH ±1° BEND ±1°
TWO PLACE DECIMAL ±.13
THREE PLACE DECIMAL ±.125

MATERIAL/FINISH:

2x4 Lumber

DO NOT SCALE DRAWING

PROPRIETARY AND CONFIDENTIAL

THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF ***FIRST®***. ANY REPRODUCTION IN PART OR AS A WHOLE WITHOUT THE WRITTEN PERMISSION OF ***FIRST®*** IS PROHIBITED.

COMMENTS:

REMOVE ALL BURRS AND SHARP EDGES.

FIRST ROBOTICS COMPETITION

SOLIDWORKS Modeling Solutions Partner

TITLE:

Subwoofer Short Beam

SIZE	DWG. NO.	REV
C	TE-24334	

SCALE: 1:1 SHEET 1 OF 1