

TE-24300 SPEAKER



Description: This is a Speaker, designed so that teams can practice scoring game pieces.

FILES INCLUDED

In this compressed folder, you will find all of the drawings, CAD Files and STEP Files for this design.

Drawings: For your convenience, all drawing files have been exported to PDF Format. Each major field assembly will have both assembly drawings and component drawings.

CAD Files: All SOLIDWORKS files required to build or modify the assembly.

STEP files: STEP files of the assembly are included for the convenience of non-SOLIDWORKS users.

SHOPPING LIST

Plywood and Lumber (Example Cut List is at end of Readme):

- 2" x 4" x 8' Lumber – 12 Pieces
- 4' x 8' x 1/8" Thick Hardboard – 1 Sheet
- 4' x 8' x 1/2" Thick Plywood – 2 Sheets (a third small piece will be needed if making optional TE-24309 part)

Hardware:

- #8 Wood Screws x 2.5" long – Approximately 40 Pieces
- #8 Wood Screws x 1" long – Approximately 60 Pieces

NOTE ON HARDWARE: All wood screws can be replaced with nuts and bolts of your choosing to make the design easier to disassemble and store. If this is not a concern for your team, wood screws will make for a sturdier assembly.

NOTE: TE-24309 is an optional part, only necessary for certain April Tag usage.

Notes about materials:

- Plywood and Hardboard Sheets – quality of plywood is up to the user. Plywood of lower qualities may contain voids and may warp more than high quality plywood. All dimensions listed are "nominal". For example, 1/2" plywood is typically 15/32".

- Lumber - quality of lumber is up to the user. Please keep in mind that lumber of lower qualities may warp more than high quality lumber. All dimensions below are the “mill cut” dimensions. For example, 2” x 4” lumber is really 1½” x 3½”.

Example Cut List (All units are Inches):

2x4 Lumber:

| | | | | | | | | | |
|----------------|------------------|---------------------|---------------------|---------------------|--------------------|--------------------|---------------------|-----|-------|
| Layout ID A | Repetition 1X | Stock length 96" | Part length / Label | | Qty | Cuts in layout | | | |
| | | | 37" / TE-24333 | | | 1 | The number of cuts | 2 | Waste |
| | | | 29 3/8" / TE-24327 | | 2 | Material remnant | 0" | Cut | 1/4" |
| | | | 37" TE-24333 | 29 3/8" TE-24327 | | | 29 3/8" TE-24327 | | |
| Layout ID B | Repetition 2X | Stock length 96" | Part length / Label | | Qty | Cuts in layout | | | |
| | | | 38 3/8" / TE-24304 | | | 2 | The number of cuts | 5 | Waste |
| | | | 7 3/4" / TE-24324 | | 1 | Material remnant | 1/8" | Cut | 5/8" |
| | | | 5 3/8" / TE-24334 | | 2 | | | | |
| | | | 38 3/8" TE-24304 | 38 3/8" TE-24304 | 7 3/4" TE-24324 | 5 3/8" TE-24334 | 5 3/8" TE-24334 | | |
| Layout ID C | Repetition 1X | Stock length 96" | Part length / Label | | Qty | Cuts in layout | | | |
| | | | 37" / TE-24333 | | | 2 | The number of cuts | 5 | Waste |
| | | | 6 7/8" / TE-24318 | | 3 | Material remnant | 3/4" | Cut | 5/8" |
| | | | 37" TE-24333 | 37" TE-24333 | 6 7/8" TE-24318 | 6 7/8" TE-24318 | 6 7/8" TE-24318 | | |
| Layout ID D | Repetition 2X | Stock length 96" | Part length / Label | | Qty | Cuts in layout | | | |
| | | | 55 1/4" / TE-24308 | | | 1 | The number of cuts | 2 | Waste |
| | | | 38 3/8" / TE-24304 | | 1 | Material remnant | 2 1/8" | Cut | 1/4" |
| | | | 55 1/4" TE-24308 | 38 3/8" TE-24304 | | | | | |

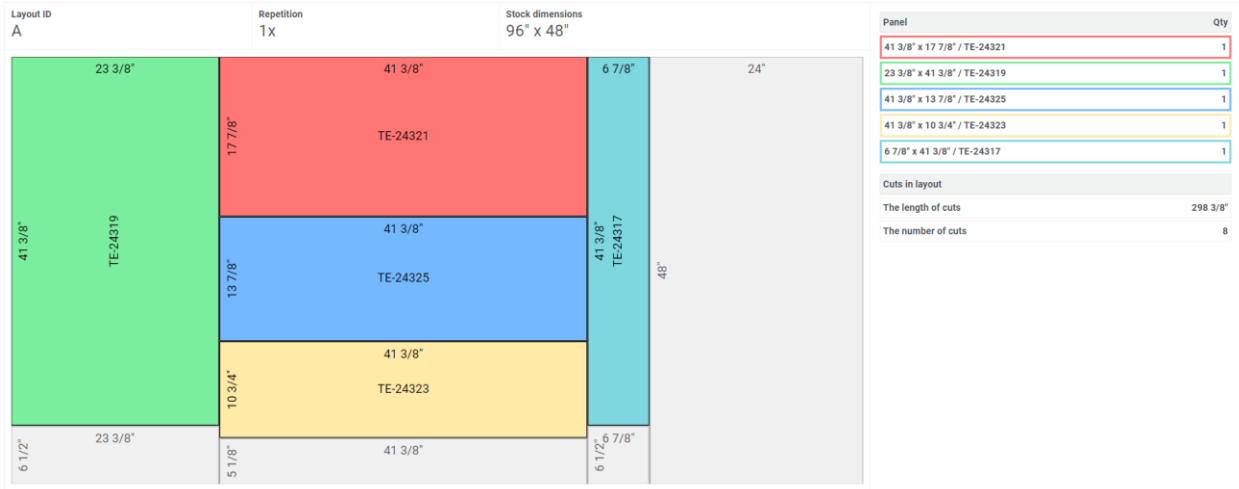
| | | | | | | | | |
|---------------------|------------------|---------------------|---------------------|--|-----|---------------------|--------------------|---|
| Layout ID E | Repetition 2x | Stock length 96" | Part length / Label | | Qty | Cuts in layout | | |
| | | | 76 5/8" / TE-24303 | | | 1 | The number of cuts | 2 |
| | | | 16 3/8" / TE-24320 | | | 1 | Waste | |
| | | | | | | Material remnant | 2 3/4" | |
| | | | | | | Cut | 1/4" | |
| 76 5/8" TE-24303 | | | | | | 16 3/8" TE-24320 | | |

| | | | | | | | | |
|---------------------|------------------|---------------------|---------------------|--|--------------------|--------------------|--------------------|---|
| Layout ID F | Repetition 1x | Stock length 96" | Part length / Label | | Qty | Cuts in layout | | |
| | | | 38 3/8" / TE-24304 | | | 1 | The number of cuts | 5 |
| | | | 37" / TE-24333 | | | 1 | Waste | |
| | | | | | | Material remnant | 2 3/8" | |
| | | | | | | Cut | 5/8" | |
| 38 3/8" TE-24304 | | 37" TE-24333 | | | 6 7/8" TE-24318 | 5 3/8" TE-24334 | 5 3/8" TE-24334 | |

| | | | | | | | | |
|---------------------|------------------|---------------------|---------------------|--|-----|---------------------|--------------------|---|
| Layout ID G | Repetition 2x | Stock length 96" | Part length / Label | | Qty | Cuts in layout | | |
| | | | 76 5/8" / TE-24303 | | | 1 | The number of cuts | 2 |
| | | | 14 7/8" / TE-24322 | | | 1 | Waste | |
| | | | | | | Material remnant | 4 1/4" | |
| | | | | | | Cut | 1/4" | |
| 76 5/8" TE-24303 | | | | | | 14 7/8" TE-24322 | | |

| | | | | | | | | |
|-----------------|------------------|---------------------|---------------------|--|-----|------------------|--------------------|---|
| Layout ID H | Repetition 1x | Stock length 96" | Part length / Label | | Qty | Cuts in layout | | |
| | | | 37" / TE-24333 | | | 2 | The number of cuts | 2 |
| | | | | | | | Waste | |
| | | | | | | Material remnant | 21 3/4" | |
| | | | | | | Cut | 1/4" | |
| 37" TE-24333 | | 37" TE-24333 | | | | | | |

1/8" Hardboard:



1/2" Plywood (Note that TE-24309 is optional and not included below):

