



**SkillsUSA California
Introduction to Woodworking
2018 State Contest**

Description: The Introduction to Woodworking contest is a state contest only. It is open to all first year secondary construction or woodworking students. Contestants will build a beginning woodworking level project that may require the use of stationary power tools such as the drill press, power miter box, or router table under the contest coordinator's supervision. The project may also include the use of portable power tools such as a portable electric drill and a jig saw. Hand tools will also be required to complete the project. Contestants are required to bring the tools listed to the contest. All materials and stationary tools will be provided.

A measured drawing (without dimensions) and tool list have been attached for your convenience. Contestants are required to attend an orientation meeting the day prior to the competition. A written test will be administered at the orientation meeting and will make up 10% of the total score.

Process #1 (Written Test): Contestants will prepare a material list for a Large Tool Tote. They will need to make two copies of the Bill of Materials, one to be turned in and scored and the other to be used by the contestant. ***This year we will be assembling the drawer box on Friday April, 20th at the Ontario Convention Center following the written test. Students should bring clamps and tools that day.***

Process #2 (Large Tool Tote Construction): This project will be made from $\frac{3}{4}$ " # 2 pine, $\frac{1}{2}$ " #2 pine, and $\frac{1}{4}$ " plywood. The material has been ripped to width for you, but you will need to cut each piece to length and some angles using a power miter saw that has been provided for you. Some cuts may require using your jig saw or coping saw. The drawer box will be pre-dovetailed, glued and clamped following the written test the first day of competition. All other construction, will be butt, glued and nailed. Set all nails and putty over them. Sand all surfaces smooth and remove all sharp edges. (Full Instructions are written on PG. 2 of the contest)

1. Tools Required for Contest (provided by Organizers, based on up to 24 contestants)

- Min 1 qty - Table saw (needed only by organizers to pre-cut material)
- Min 2 qty – sliding compound miter saw and extra blades
- Electric jig saws with wood cutting blades (1:6 ratio minimum)
- Router table with flush cut trim bit (1:12 ratio minimum)
- First aid kit (minimum) or first aid station (i.e. Smart Safety)
- Cordless drill + backup battery and charger (2, one for each size hole for handle)
- Nail gun, 23 gauge (1:6 ratio minimum)

2. Materials Required for Contest (provided by Organizers)

- #2 pine for tool box
- $\frac{3}{4}$ " Headless nails 1,000 total
- Nails, 4d (1-1/2") finish – qty 30 per student
- Wood glue
- Wood patch, to match wood used for project
- Pivoting handle hardware set

3. Student Tool List

Students are expected to bring (1) of each of the following items. Items not included on this list may not be used for the contest. Tool list check may be included in total score.

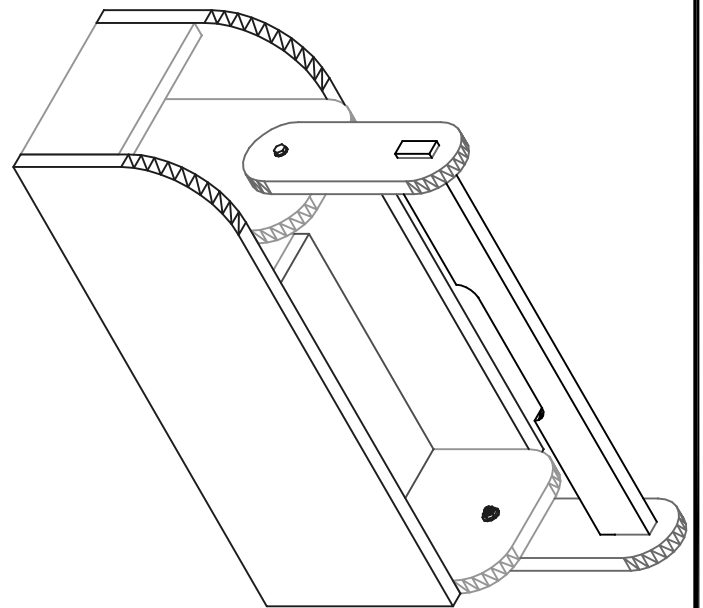
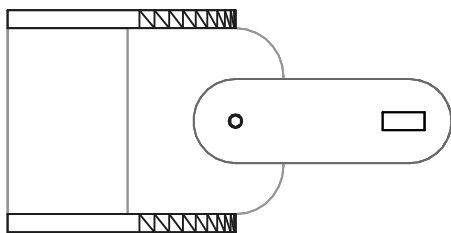
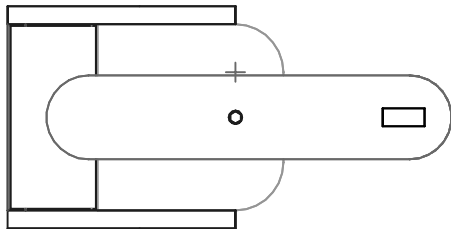
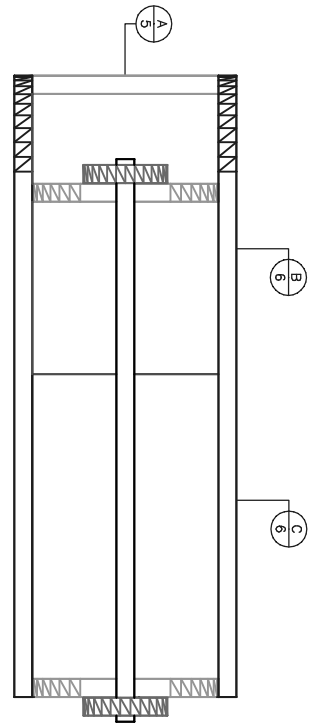
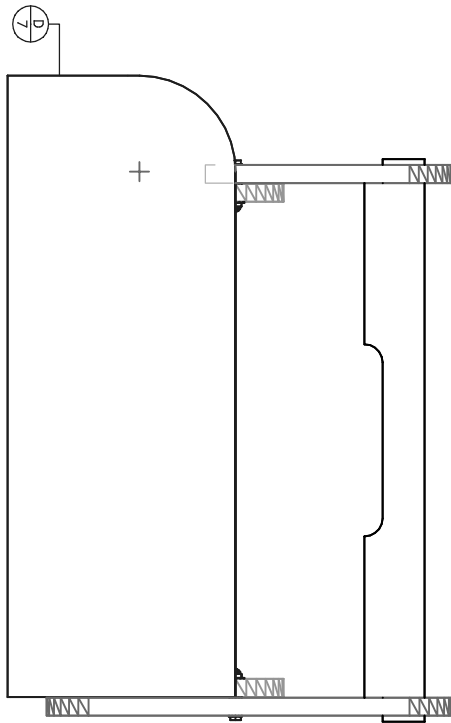
- a. Safety glasses
- b. Earplugs
- c. 2 pencils, sharpened
- d. Compass (Optional)
- e. Sanding block
- f. 100 grit, 220 grit sandpaper
- g. Tri square or combination square
- h. Sharp 1/2" wide chisel
- i. Sharp 3/4" wide chisel
- j. Coping saw with extra blades
- k. Backsaw or dovetail saw
- l. Curved claw hammer
- m. Cordless drill + backup battery and charger (Optional)
- n. 1/16" twist drill bit
- o. Nail set, 3/32" or 1/16"
- p. Tape measure, recommended 12'
- q. 4-in-1 wood rasp
- r. Wood file with handle
- s. Block plane, sharpened
- t. Putty knife
- u. Qty (2 to 4) 6" or 8" bar clamps or equivalent woodworking bar clamps
- v. Squares for clamping (Optional)

4. **Resume Requirement:** students must present a resume on the day of competition in order to compete.

5. **Safety Test Requirement:** students must complete an online safety test prior to competition, which is available on SkillsUSACA.org

6. **Dress requirement** (dress code penalty 5% of total score):

- a. Twill khaki work shirt (official SkillsUSA logoed shirt NOT required)
- b. Khaki work pants
- c. Black or brown belt
- d. Black or brown leather work shoes
- e. Non-tinted safety glasses with side shields or goggles; wrap-around safety glasses are ok.
(Prescription glasses can be used only if they are equipped with side shields. If not, they must be covered with goggles.)
- f. Earplugs
- g. Hats are OK; all logos must be taped or covered.
- h. No loose clothing, ties or jewelry. Hair must be tied up.



INTRO TO WOOD
LARGE TOOL TOTE
DRAWING

DATE: 3/16/18	JOB #: 2018
DRAWN BY: AK	SCALE: AS NOTED
DWG. NO. 1	

LARGE TOOL TOTE INSTRUCTIONS

FOR THIS COMPETITION YOU WILL BE GIVEN A SET OF PINE WOOD AND PLYWOOD TO CUT INTO COMPONENT PARTS.

EACH PIECE OF WOOD YOU RECIEVE WILL ALREADY BE CUT TO THE CORRECT WIDTH. YOU WILL HAVE TO CUT THEM TO LENGTH AND CUT THE NOTCHES OR OTHER DETAILS. MULTIPLE COMPONENTS WILL BE CUT FROM A SINGLE PIECE OF WOOD. THE DRAWERBOX PARTS ARE PRE-MADE.

YOU WILL USE GLUE AND NAILS TO CONNECT YOUR COMPONENTS TOGETHER.

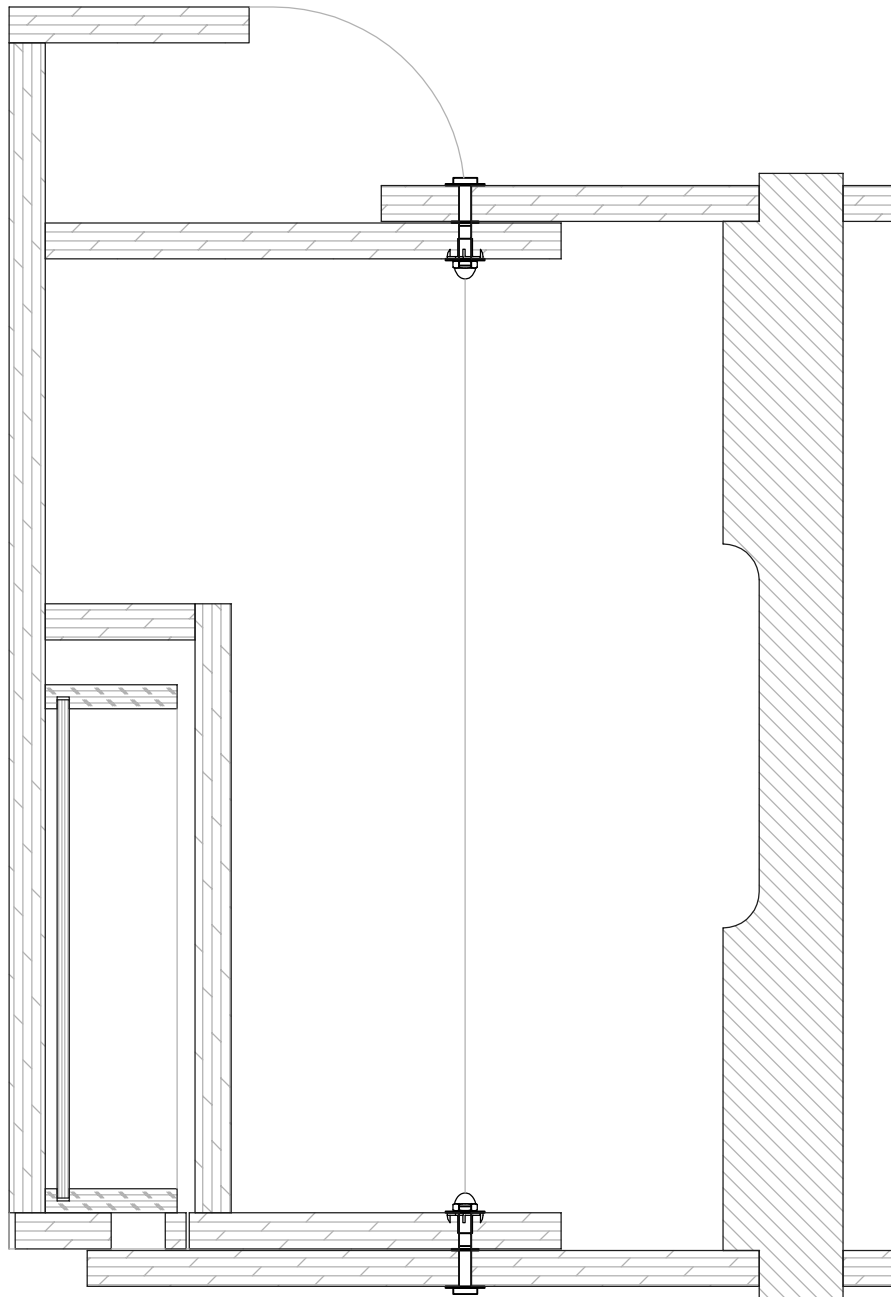
1. USE GLUE AND CLAMPS TO ASSEMBLE THE DRAWER BOX (PG 8). USE GLUE ON THE DRAWER BOX SIDES. THE BOTTOM SHOULD BE "FLOATING" AND DOES NOT REQUIRE ANY GLUE.
2. THE HANDLE WILL BE MADE OUT OF 3 PIECES (PG 10 AND 11). THE PROFILES FOR THE SIDES ARE CUT ON THE CNC. YOU WILL USE A JIG SAW TO CUT OUT THE HANDLE SIDES. YOU WILL USE A ROUTER TABLE WITH A FLUSH CUT BIT TO TRIM THE REMAINING MATERIAL. DRILL HOLES AND SQUARE OUT THE CORNERS OF THE CUT-OUT ON EACH SIDE PIECE USING A SHARP CHISEL. CUT THE NOTCHES ON THE ENDS OF THE HORIZONTAL HANDLE PIECE. GLUE AND CLAMP THE HANDLE ASSEMBLY TOGETHER AFTER ALL PIECES ARE MADE TO THE CORRECT SPECIFICATIONS.
3. CUT OUT YOUR TOOL BOX PIECES. INSERT THE T-NUT INTO THE APPROPRIATE PIECES TO ATTACH THE HANDLE TO THE TOOL TOTE. USE FINISH NAILS AND GLUE TO ATTACH THE BOTTOM, SIDES, FRONT, BACK, LEDGE, AND DIVIDER PIECES.
4. CUT OUT THE DRAWER FRONT (PG 9). ATTACH THE DRAWER FRONT TO THE DRAWER BOX USING THE PROVIDED SCREWS.
5. ATTACH THE HANDLE TO THE TOOL BOX USING THE PROVIDED BOLT ASSEMBLY (PG 8). BE SURE TO PUT THE WASHERS AND LEATHER SPACER IN THE CORRECT LOCATIONS. THE LONGER SIDE OF THE HANDLE SHOULD COVER THE FINGER HOLE FOR THE DRAWER AND HOLD IT CLOSED WHEN THE HANDLE IS UP.
6. SET ALL NAILS AND PUDDY. THEN SAND ANY GLUE SPOTS, SHARP EDGES, AND ROUGH AREAS ON THE LARGE TOOL TOTE.

NOTE THE SMALL TOOL BOX FROM REGIONALS IS DESIGNED TO FIT INSIDE OF THE LARGE TOOL TOTE



INTRO TO WOOD LARGE TOOL TOTE INSTRUCTIONS

DATE: 3/16/18	JOB #: 2018
DRAWN BY: AK	SCALE: 3/32" = 1' - 0"
DWG. NO. 4	



INTRO TO WOOD
LARGE TOOL TOTE
SECTION

DATE: 3/16/18	JOB #: 2018
DRAWN BY: AK	SCALE: AS NOTED

DWG. NO.
5

