

Team 3081, Kennedy RoboEagles, uses a pair of these rolling storage cabinets to save setup/teardown time during build season. We think they save about 20 minutes per build session, as we need to clear out of our build shop (it's a classroom) after each session.

The bottom three shelves hold 9 standard flip top bins, and the top shelf can be used for smaller items. Each end of the cabinet has a 24" square white board.

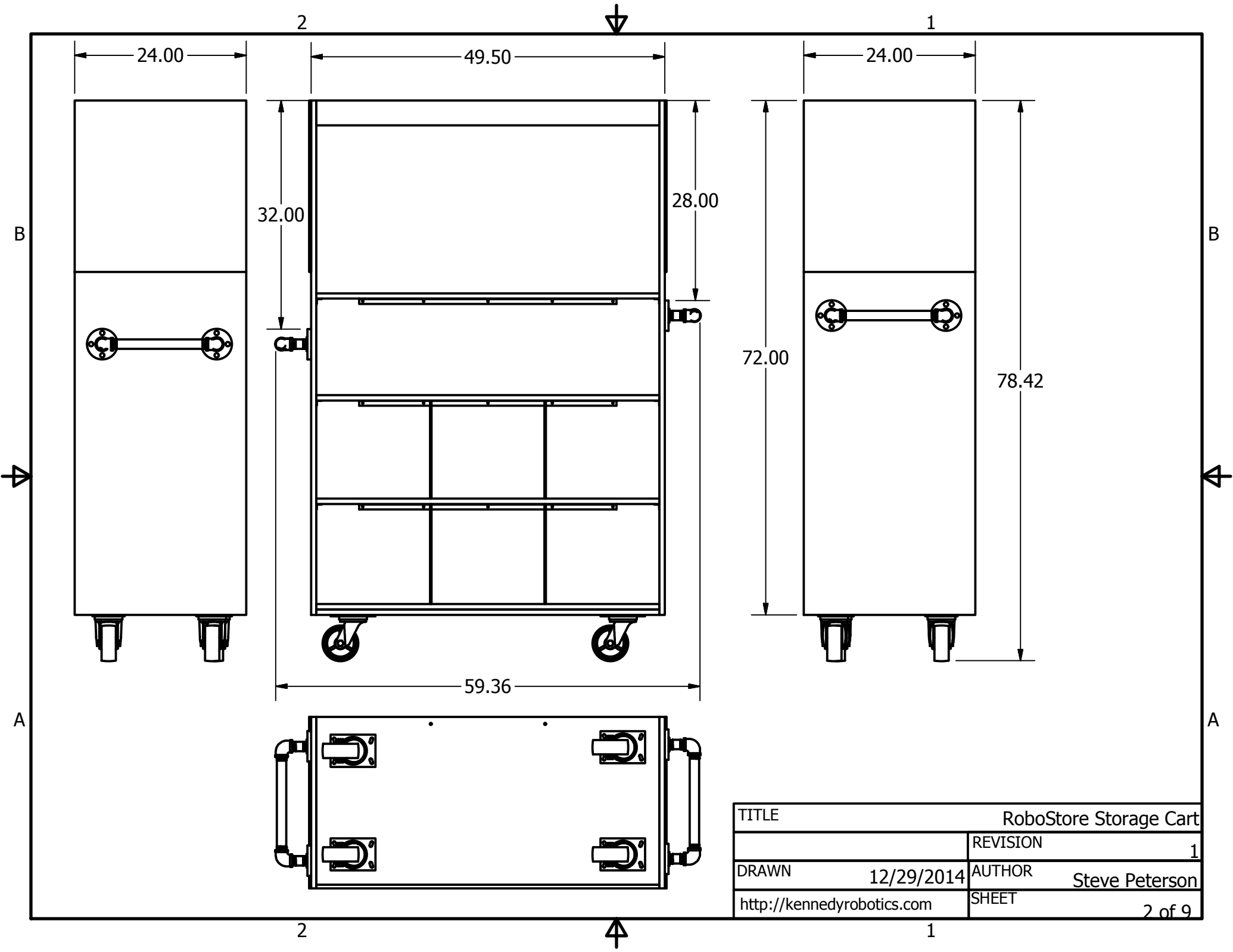
The handles are set at offset heights to allow carts to be stored next to each other, and keep hands away from the edge of the cart to avoid pinching.

Carts fit through a standard 30" doorway.

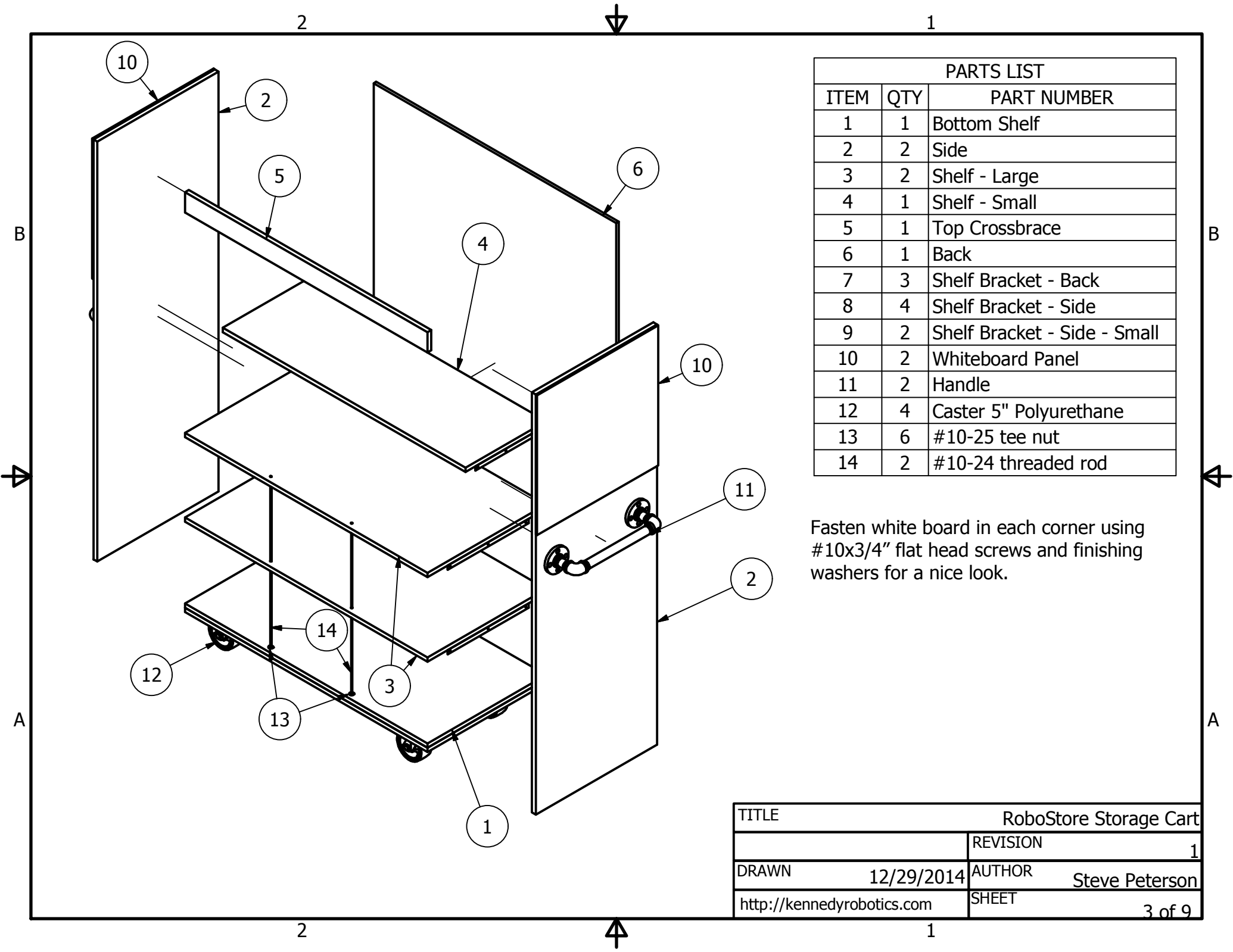
Carts are color coded, and bins are color coded, numbered, and labeled.

REVISION HISTORY		
REV	DESCRIPTION	DATE
1	Original	12/29/2014

TITLE		RoboStore Storage Cart	
		REVISION	1
DRAWN	12/29/2014	AUTHOR	Steve Peterson
http://kennedyrobotics.com		SHEET	1 of 9



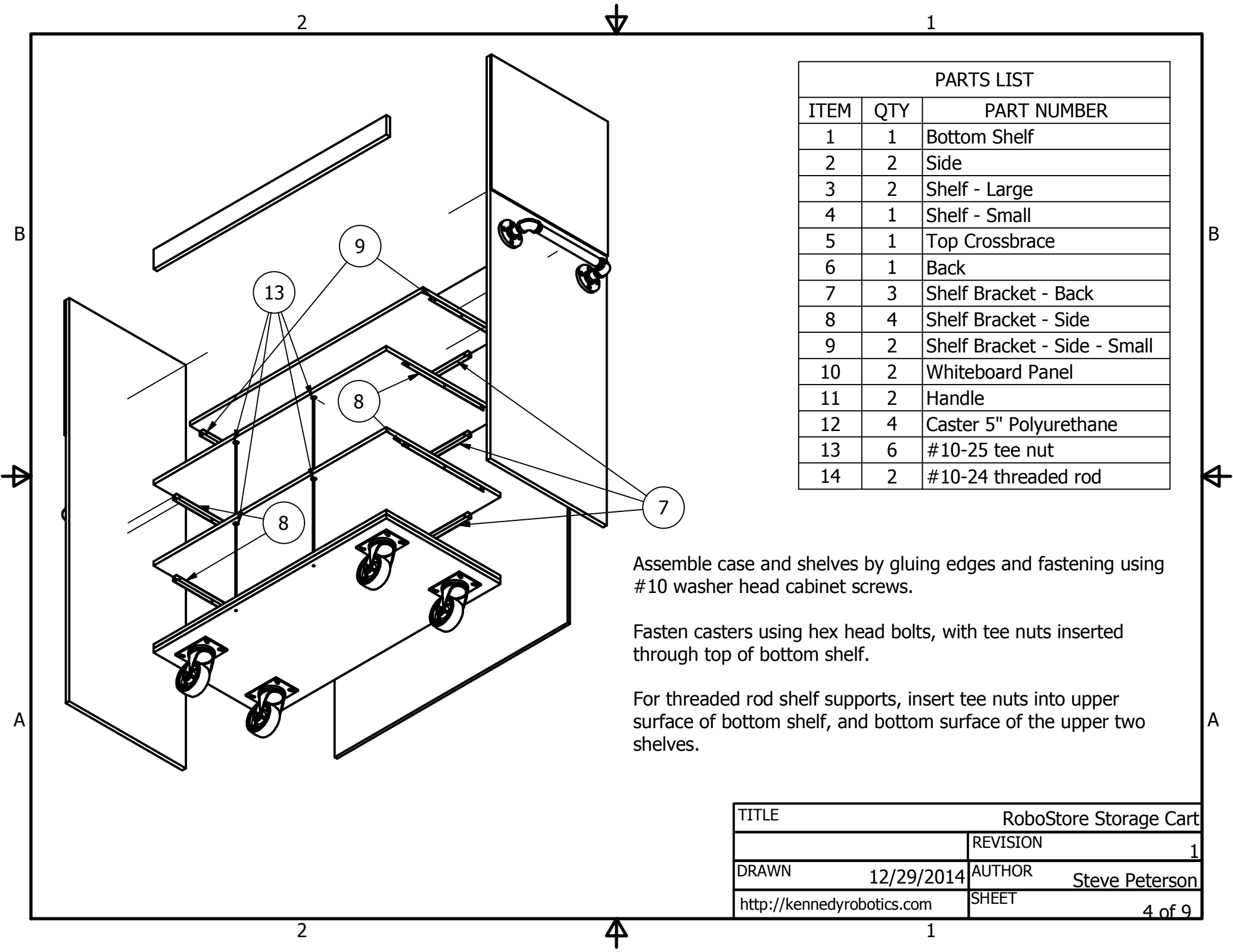
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PARTS LIST		
ITEM	QTY	PART NUMBER
1	1	Bottom Shelf
2	2	Side
3	2	Shelf - Large
4	1	Shelf - Small
5	1	Top Crossbrace
6	1	Back
7	3	Shelf Bracket - Back
8	4	Shelf Bracket - Side
9	2	Shelf Bracket - Side - Small
10	2	Whiteboard Panel
11	2	Handle
12	4	Caster 5" Polyurethane
13	6	#10-25 tee nut
14	2	#10-24 threaded rod

Fasten white board in each corner using #10x3/4" flat head screws and finishing washers for a nice look.

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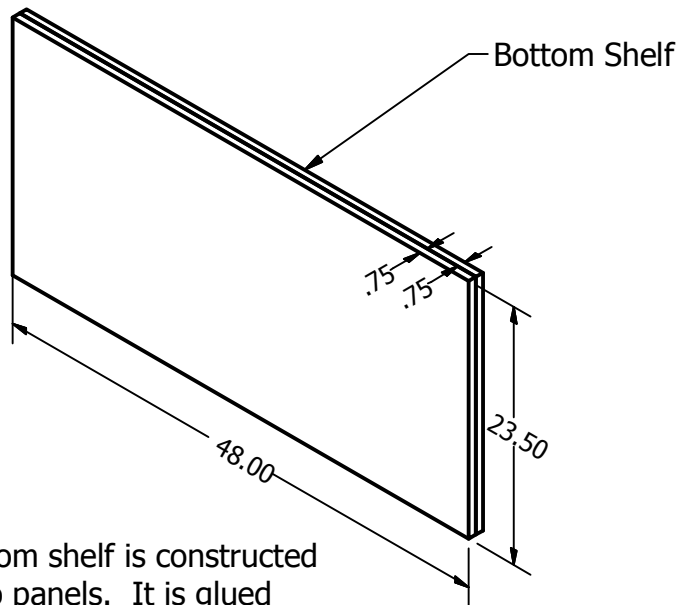
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1	1	Bottom Shelf
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6	1	Back
7	3	Shelf Bracket - Back
8	4	Shelf Bracket - Side
9	2	Shelf Bracket - Side - Small
10	2	Whiteboard Panel
11	2	Handle
12	4	Caster 5" Polyurethane
13	6	#10-25 tee nut
14	2	#10-24 threaded rod

Assemble case and shelves by gluing edges and fastening using #10 washer head cabinet screws.

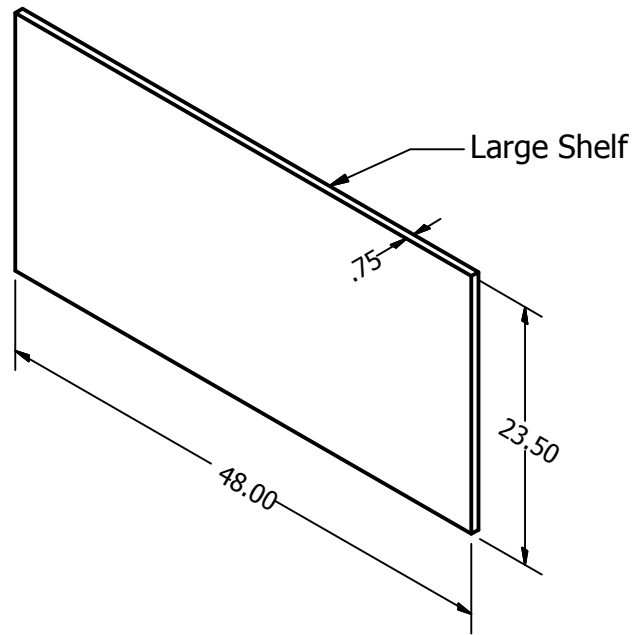
Fasten casters using hex head bolts, with tee nuts inserted through top of bottom shelf.

For threaded rod shelf supports, insert tee nuts into upper surface of bottom shelf, and bottom surface of the upper two shelves.

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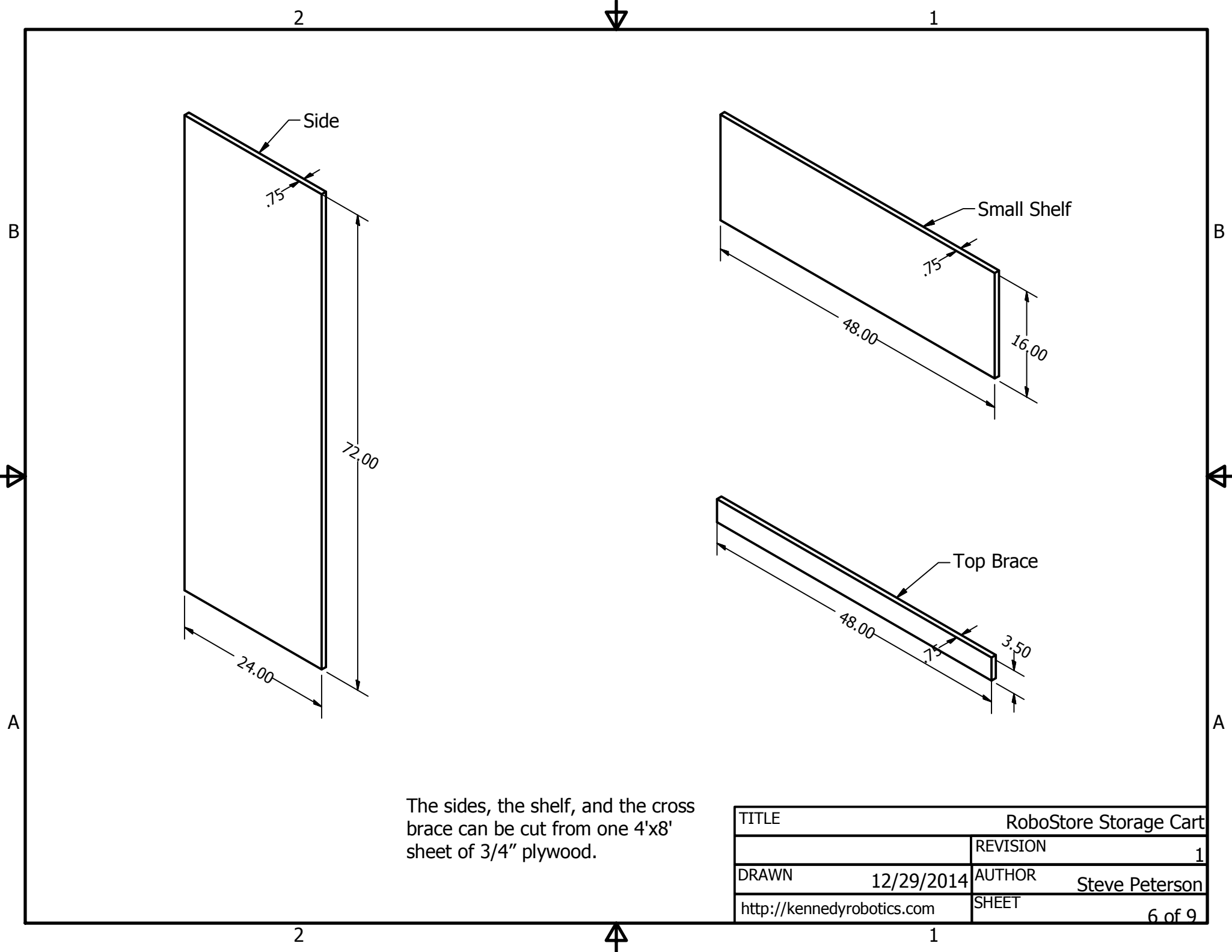


The bottom shelf is constructed from two panels. It is glued together with wood glue and fastened together with a dozen 1.25" deck screws on 12" centers.



Items on this sheet can be cut from one 4'x8' sheet of 3/4" plywood.

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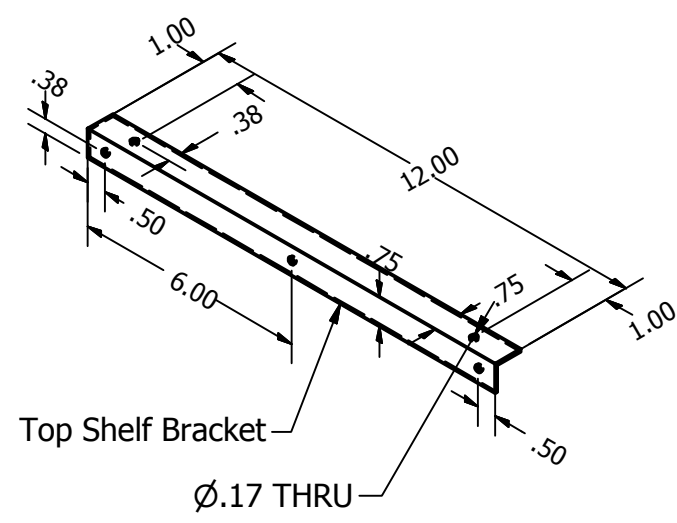
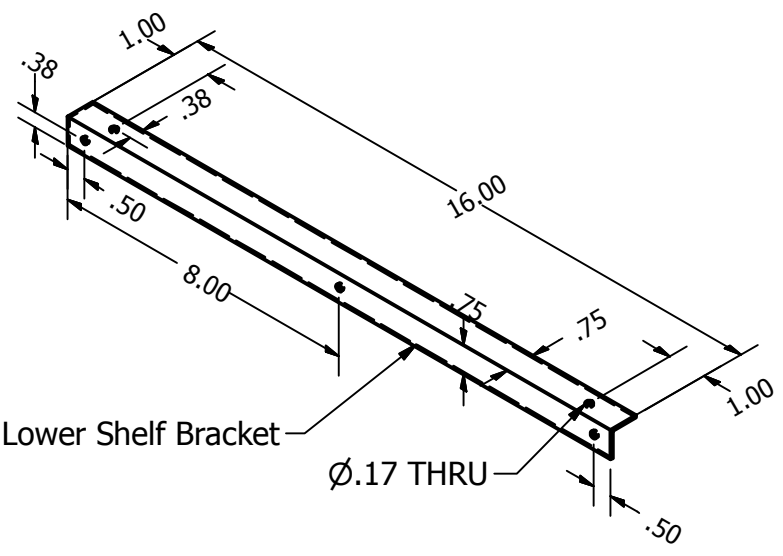


The sides, the shelf, and the cross brace can be cut from one 4'x8' sheet of 3/4" plywood.

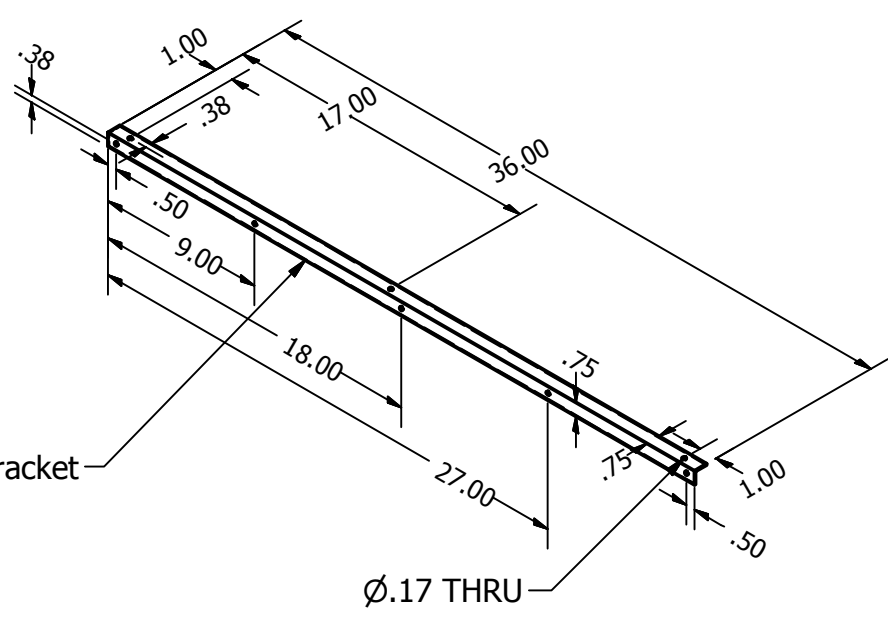
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1



Use #8 x 3/4" wood screws to fasten brackets to shelves and case.



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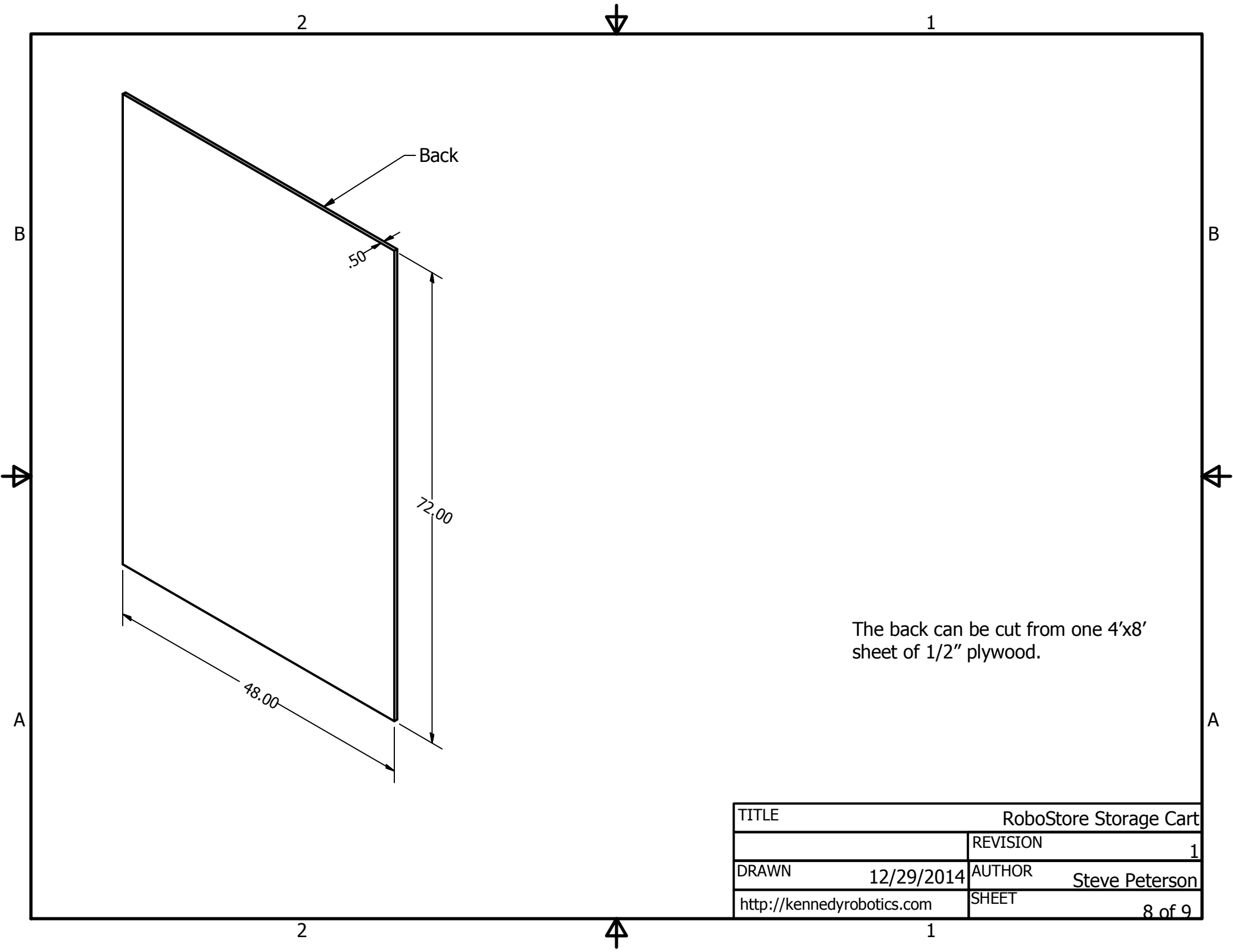
1

B

B

A

A



The back can be cut from one 4'x8' sheet of 1/2" plywood.

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Qty	UM	Description	How used
2	Ea	4'x8'x3/4" AC Plywood	Shelves, sides
1	Ea	4'x8'x1/2" AC Plywood	Back
1	Ea	24"x48" White Acrylic/MDF Whiteboard panel	Whiteboard
12	Ea	1.25" deck screws	Bottom Shelf
50	Ea	#10 x 2.5" star drive washer head cabinet screws (Screw Products CTX-10212 or equivalent, available at Home Depot)	Assembling case and shelves
1	Ea	Wood glue	Assembling case and shelves
8	Ea	#10 x .75 flat head screws	Fasten whiteboard to case
8	Ea	#10 finishing washer	Fasten whiteboard to case
4	Ea	5" polyethylene casters, McMaster 22945T320 or equivalent (Northern Tool stocks these)	Attach to case
16	Ea	5/16" X 2" Hex Bolts	Attach casters
16	Ea	5/16" washers	Attach casters
16	Ea	5/16" tee nuts	Attach casters
4	Ea	1" cast iron 90 degree elbow	Handle
4	Ea	1" cast iron flange with screw holes	Handle
4	Ea	1" cast iron threaded nipple, 3" length	Handle
2	Ea	1" cast iron threaded nipple, 12" length	Handle
16	Ea	___ x 3/4" flat head wood screws (sized to fit hole in cast iron flange)	Fasten handle to case
54	Ea	#8 x 3/4" wood screws	Fasten shelf brackets
2	Ea	48" #10-24 threaded rod	Front shelf support
6	Ea	#10-24 tee nuts	Front shelf support
9	Ea	12"x15"x21" flip tote (Home Depot 790866 or equivalent)	Store stuff
196	ln	6061 Aluminum Equal Sided Angle, 3/4", 1/16" thickness	Shelf brackets

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