

LIFE-SIZED CONNECT FOUR

DIFFICULTY:
VERY COMPLEX

 3 VOLUNTEERS

 6 HOURS

MATERIALS

PREP

- (2) 2x4x8ft boards
- (1) 2x6x8ft board
- (1) 1x3x8ft board
- (6) 1x2x8ft boards
- (2) .75"x4x8ft plywood boards
- (2) 2" door hinges
- (2) hook and eyelet
- (42) 7" game pieces
- (8) casters
- 1lb 1.25" deck screws
- 2lb 2.25" deck screws

BUILD

- (2) 2x4x55" pieces
- (4) 2x4x17" trapezoid pieces
- (2) 2x6x36" pieces
- (1) 1x3x62" piece
- (12) 1x2x43" pieces
- (1) 64.5"x43" plywood with holes
- (1) 64.5"x43" plywood without holes

Tools listed on page 2

PREP LIST

1. Sort all the materials into piles by like items to ensure you have materials needed to complete project.
2. Take the (2) 2x4x8ft boards. Cut each down to (1) 55" piece and (2) 17" pieces, for total of (2) 2x4x55" pieces and (4) 2x4x17" pieces.
3. Take the 2x6x8ft board. Cut into (2) 36" pieces.
4. Take the 1x3x8ft board. Cut down to (1) 62" piece.
5. Take the (6) 1x2x8ft boards. Cut each down to (2) 43" pieces, for total of (12) 1x2x43" pieces.
6. Take the (2) plywood boards. Using the chalk line and circular/jig saw, measure and cut a 64 1/2"x43" piece from each board, for a total of (2) 64.5"x43" plywood pieces.
7. Angled Cuts: Take the (4) 2x4x17" pieces cut in step 2. Set the miter saw to a 45° angle, and cut angles off of both ends to create (4) 2x4x17" trapezoids.
8. Hole Layout and Cuts: Take 1 of the 64.5"x43" plywood pieces. You'll be cutting (42) 6" holes. Holes should be laid out 7 across (64.5" side) and 6 down (43" side). In order to get holes and spacing appropriate/symmetrical, use chalk line to create center point of each hole. Along both edges of the 64.5" sides, mark following measurements: 5.25"; 14.25"; 23.25"; 32.25"; 41.25"; 50.25"; and 59.25". Place chalk line tightly across plywood at each of these marks and "snap" to score the wood. Re-chalk the line as needed. Along both edges of the 43" sides, mark the following measurements: 4.5"; 11.5"; 18.5"; 25.5"; 32.5"; and 39.5". Again set the chalk line at these marks and "snap" and end up with a grid on your plywood. The intersection of lines represents the center of each hole needed to be cut. Place the drill bit of the hole saw at each center point to cut the holes.

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TOOLS

PREP

Miter saw

Circular or jig saw

6" hole saw attachment

Hammer drill

Pencil

Chalk line

Tape measure

Carpenter's square

Safety glasses

Sandpaper

Painting materials

Drill

Screwdriver bit

Hammer

BUILD LIST

1. Sort all the materials into piles by like items to ensure you have materials needed to complete project. 
2. Paint one side of the sheet of plywood with no holes yellow. This will be the inside face of the back of the game. 
3. Using the 1.25" deck screws, attach six (6) 1x2x43" spacers to one side of the plywood with holes. Center each spacer between the holes, and use two (2) 1x2x43" pieces on the ends. This will create 7 columns. Use 3 screws per space (top, bottom, and middle). This way you know where the screws are when they are covered. There should be .5" between the hole and the spacer. 
4. Paint the plywood and spacers yellow. This will be the inside of the front of the game. 
5. While the paint dries, assemble the sides and legs. Attach one (1) 2x4x55" piece to the center of one (1) 2x6x36" piece as shown, with the 2.5" deck screws. Then attach two 
6. Repeat Step 5 to assemble the other side and leg. 
7. Put together the two pieces of plywood (one with holes and one without holes). Make sure you are "sandwiching" the spacers on the inside and making sure that all sides are flush. Use the 1.25" deck screws screwing in from the back of the game into the spacers (the plywood that does not have any holes). On spacers 4 and 5 use two (2) screws each at rows 2 and 4 on the front of the game. 

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Tape measure
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Sandpaper
Painting materials
Drill
Screwdriver bit
Hammer

BUILD LIST

- Place the game board and the legs together. Using the 2 1/2" deck screws, attach the legs to each side of the game board so that the wide side of the 2x4 is flush at the top and centered, and attached into the side spacers within the game board "sandwich." [NOTE: The top of the game board has a space of 1 1/2" to the first row of holes. The bottom has only 1/2" space.] 
- Attach the 1x3x62" on the bottom of the game board to create a "trap door" that will allow the game pieces to fall out when opened. Use the 2" door hinges to attach it in place and use the hook and eyelets to keep it closed. 
- Use the last four (4) pieces of 1x2x43" on the outside edges of the game board (vertically) to reinforce the sides of the game face and back, using the 2 1/2" deck screws. 
- Paint the plywood yellow and the sides and legs blue. Paint the game pieces an equal number red and black. 