

How To Build Deck Stairs Like A Pro

Step 1: Determine the number of treads. Measure the height in inches of your deck from where you think the stairs will land and divide by 7.75. Round up to the next whole number and minus 1 to determine the number of treads. If you have more than 7 treads you may want to consider a landing partway. If ground slopes away from the deck, you may need to add a tread. Re-check the height during step 2.

Step 2: Determine where steps will land. The optimal run (tread depth) for a trex deck is 10 1/2". This allows for a 1" overhang at the nose. Measure out from the edge of the deck 10 1/2" per tread. This will be the front edge of the stairs. If necessary pour a cement pad or lay pavers beginning 1 foot closer to the deck and ending 3 ft past the landing point. Make sure pad is the entire width of the stairs.

Step 3: Determine the rise. Using a level or a laser, measure the exact height in inches from the deck to the landing point and divide by 1 plus the number of treads. This is your rise.

Step 4: Determine the length of your stair stringer. You will need a straight 2x12 free of any checks or splits. Once you begin cutting your stair, any flaws could break the stringer. Refer to Table 1 below for the board length needed based on your rise. Multiply the figure below by the number of treads to calculate the length of the individual stringer. Obtain your start measurement from the Table 1. Measure over from the edge and make a mark.

Step 5: Find your points on your framing square. Find your rise and run on your framing square. Stair nuts may be obtained from your local hardware store for a few bucks to make it easier to lay out your treads.

Step 6: Mark your first tread. Place your framing square on your board and line up your run measurement with your starting mark. Line up your rise measurement with the edge of the board. Now trace your tread with a pencil.

Step 7: Mark your remaining treads. Slide your framing square along the board and line up your run measurement with your previous rise line. Repeat the process for all your treads. The last rise line is not necessary since the edge of your deck will be your last rise.

Step 8: Mark your bottom tread rise. Your bottom rise is shorter because you have to minus the thickness of the deck board and the 2x6 support boards. refer to Table 1 for the measurement. Line up your framing square with your first tread and measure down from your starting mark. Draw your line to the edge.

Step 9: Mark your base line. Flip your framing square and mark your stringer base.

Step 10: Mark your top edge. You have two options here depending on how you plan on attaching your stringers to the deck:

Option A: Using metal brackets. The Simpson LSC bracket is an adjustable stair stringer bracket that mounts to the edge of the deck and is bent around the stringer to provide support. For this option, continue your top riser line down to the bottom edge of the stringer.

Option B: Using a 2x8 rim board. A 2x8 (or a ripped 2x10) is attached to the stair stringers. We like this method because the stairs can be assembled on the ground and then lifted into place. The rim board is then securely fastened to the edge of the deck. For this option, measure back 1 1/2" before tracing the line in order to accommodate the rim board.

Step 11: Cut out your stringers. Using a circular saw, cut out your stringers. Be careful not to overcut the rise and run. Stop just short and complete the cuts using a hand saw or a jig saw.

Step 12: Assemble your stairs. Cut two 2x6 support boards the width of your stairs using pressure treated lumber. Measure along the edge of the board and make marks for your stringer spacing. Lay you stringers on their back edges, lining then up with your marks. Nail the 2x6's in place. If using option B from step 10, repeat the procedure for the 2x8 rim board. Lift the stairs in place. Level and attach to the deck.

Step 13: Attach your riser board. Cut riser boards from 1x8 fascia the width of your stairs for each rise. Rip them to the height of your riser measurement. The bottom riser will be ripped to 1 inch less than your riser measurement. Fasten each riser board in place.

Step 14: Attach your tread boards. Cut tread boards from decking the width of your stairs. You will need two per tread. Place your back tread board against your riser and fasten in place. Gap your next tread board as you would on your deck. Fasten into place. Repeat for each tread.

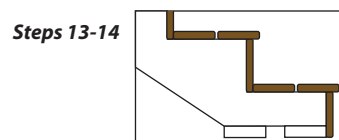
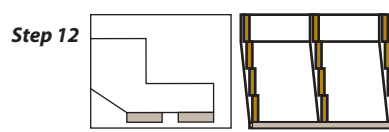
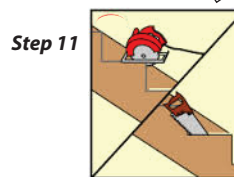
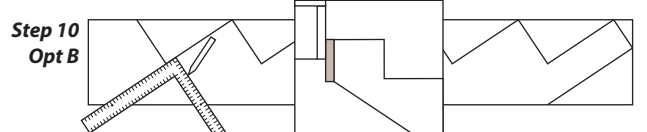
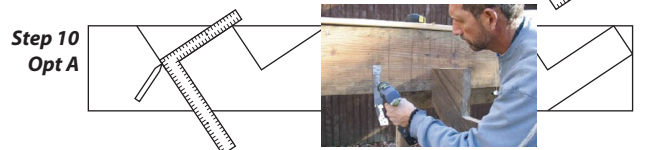
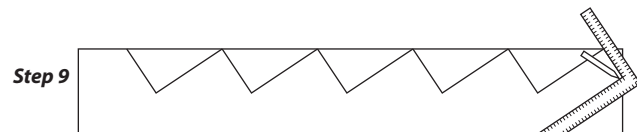
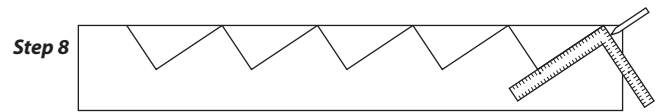
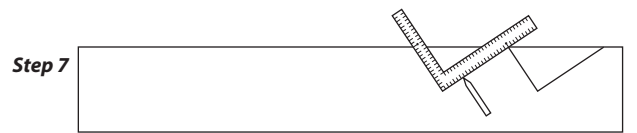
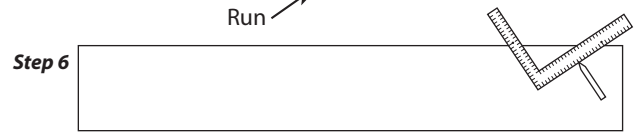
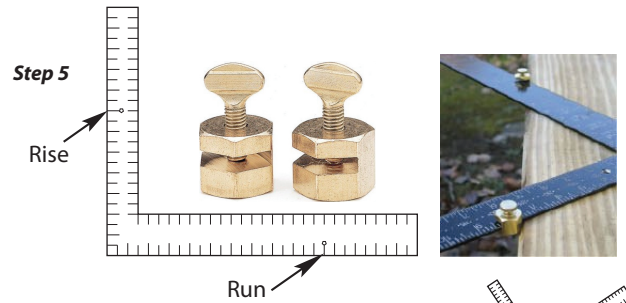
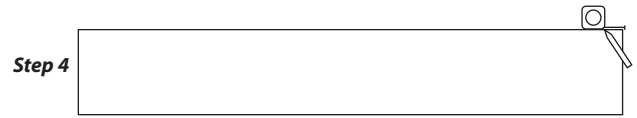
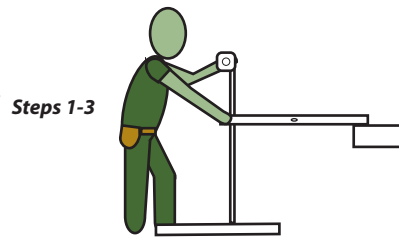


Table 1	Board Length needed per tread	Measure over to start	Bottom Tread rise
Rise			
7 7/8	13 1/8	3 5/16	5 3/8
7 3/4	13 1/16	3 1/4	5 1/4
7 5/8	13	3 1/8	5 1/8
7 1/2	12 7/8	3	5
7 3/8	12 13/16	2 7/8	4 7/8
7 1/4	12 3/4	2 13/16	4 3/4
7 1/8	12 11/16	2 11/16	4 5/8
7	12 5/8	2 5/16	4 1/2
6 7/8	12 9/16	2 3/16	4 3/8
6 3/4	12 1/2	2 1/8	4 1/4
6 5/8	12 7/16	2	4 1/8
6 1/2	12 3/8	1 15/16	4
6 3/8	12 5/16	1 13/16	3 7/8
6 1/4	12 1/4	1 3/4	3 3/4
6 1/8	12 1/8	1 5/8	3 5/8
6	12 1/16	1 5/16	3 1/2
5 7/8	12 1/16	1 1/4	3 3/8
5 3/4	12	1 1/8	3 1/4
5 5/8	11 15/16	1 1/16	3 1/8
5 1/2	11 7/8	1	3
5 3/8	11 13/16	15/16	2 7/8
5 1/4	11 3/4	7/8	2 3/4
5 1/8	11 11/16	13/16	2 5/8
5	11 5/8	9/16	2 1/2