

RYOBI Nation Project Instruction Submission Form

Builder's Name: Kelley Farmhouse Designs

Title of Project
Dorm Room Project
Description of Project
Lofted dorm room bed designed for students to be able to

Project's Finished Dimensions
70" high x 82" long x 45" wide

Estimated Cost of Materials:
\$150.00

Difficulty Level: Easy, Intermediate, Advanced
Intermediate

Materials List:		
Quantity	Dimensions	Description
10	2x6 @ 8'	Boards need to be straight. Free of warps or twists.
11	2x4 @ 8'	Boards need to be straight. Free of warps or twists.
3	1x6 @ 8'	Boards need to be straight. Free of warps or twists.
1 box		2 ½" 16 gauge nails
1 box		2 ½" square head screws
1 box		1 ¼" square head screws
5 of each grit		5" 80, 120, 150 grit sandpaper pads
1 gallon		Semi-gloss lacquer or polyurethane

Tools Used:		
Quantity	Dimensions	Description
Pencil		
Tape Measure		
Square		

Ryobi Circular Saw/ Ryobi Mitre Saw		Use fine tooth blade.
Ryobi 16 gauge nail gun		Use 2 ½ inch nails
Ryobi Drill		Use with pocket hole drill bit
Ryobi Impact Driver		Use with a square tip bit.
Ryobi Trim Router		Use a ¼ inch round over bit.
Ryobi Orbital Sander		Used with 80, 120, 150 grit sandpaper.
Paint brush or Paint Sprayer		Used with polyurethane or lacquer.
Pocket hole Jig		Used for 1 ¼" screws.
Tite bond wood glue		Used on all joints

Lumber Cut List:	
Quantity	Dimensions
4	2x6 @ 70" for legs
4	2x4 @ 70" for legs
2	2x6 @ 79" for bottom frame sides
2	2x6 @ 39" for bottom frame ends
2	2x6 @ 79" for top frame sides
1	2x6 @ 39" for top frame end
5	2x4 @ 42" for ladder
6	1x6 @ 38 7/8" for slats
2	1 ½" x 1 ½" @ 38 7/8" for bottom rail slat nailers
2	1 ½" x 1 ½" @ 72 3/8" for bottom rail slat nailers
20	2x4 @ 6" for top and bottom rail spacer blocks

Assembly Instructions:	Helpful Hits (Optional)
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<p>Step 1</p>	<p>Step 1- Making the Legs</p> <p>Using one of the 2x6's and one of the 2x4's that have been previously cut at 70", make a butt joint by gluing and nailing it with the 16 gauge brad nailer. The 2x6 should be nailed along the edge on top of the 2x4 forming an "L" shape. Make sure it is flush on both ends and along the side you are nailing. Repeat this step 3 more times to form all of the legs.</p>	<p>Use the trim router with round over bit on all sides.</p> <p>Sand legs thoroughly with 80/120/150 grit sand paper.</p>
<p>Step 2</p>	<p>Step 2- Bottom of the Bedframe</p> <p>To form the bottom frame use the two 2x6's cut at 79" and the two 2x6's cut at 39". Butt the 39" board up to the end of the 79" inch board using glue. Then screw through the end with the 2 ½" screws using the impact driver. This step should be repeated 3 more times, forming a rectangle with all joints glued and screwed.</p>	<p>The final dimensions for the bottom frame should be 42" wide x 79" long outside to outside</p>
<p>Step 3</p>	<p>Step 3 – Nailers for the slats</p> <p>Take the two boards cut at 1 ½" x 1 ½" x 38 7/8 and attach them to the inside end of the 39" board with glue and 2 ½" nails. Be sure it is flush at the bottom. Next, take the 2 boards cut at 1 ½" x 1 ½" x 72 3/8" and attach them to the inside of the 79" board with glue and 2 ½" nails. Be sure it is also flush at the bottom.</p>	
<p>Step 4 (add more steps as necessary)</p>	<p>Step 4 – Slats</p> <p>Take the 1x6's cut at 38 7/8 and space them evenly apart on top of the nailers previously installed. Use glue and 1 ¼" screws to attach the slats to nailers. This will be what the mattress sits on.</p>	<p>After slats are installed use trim router with round over bit on all edges.</p> <p>Sand thoroughly with 80/120/150 grit paper.</p>

	<p>Step 5 – Spacer Blocks</p> <p>Take the 20 2x4's cut at 6" and drill two pocket holes on one end and one pocket hole on the other end (All holes should be on the same side). On the top edge of the bottom frame make a mark every 5 ¾', leaving one end open with no marks. These marks will be where the spacer blocks sit. Using the impact driver with 1 ¼" screws attach the blocks to the top edge of the bottom frame with glue on the previously drawn marks.</p>	<p>Use trim router with round over bit on all edges.</p> <p>Sand thoroughly with 80/120/150 grit paper.</p>
	<p>Step 6 – Top Rail</p> <p>To form the top rail use the two 2x6's cut at 79" and the 2x6 at 39". Make a butt joint with the 79" board and the 39" board using glue and 2 ½" screws. Repeat this step for the other side. After both sides are joined flip the bottom frame over on top of the top rail and use glue and 1 ¼" screws with the impact driver to join together. Making sure all spacers blocks are flush and evenly spaced.</p>	<p>Before attaching top rail to bottom frame use trim router with round over bit on all edges.</p> <p>Sand thoroughly with 80/120/150 grit paper.</p>
	<p>Step 7 – Attaching legs and ladder to frame</p> <p>With the bed frame upside down attach the legs to the outside of the frame on each corner (2x6 side of the leg on the long side of the frame). Using glue and the impact driver with 2 ½" screws, screw through the inside of the frame into the leg. Make sure the top of the leg is flush with the top of the frame. Repeat this step for each leg. After legs are attached, take the four 42" 2x4's and attach them evenly spaced at 8 ½" from the bottom of the legs going up. Using glue and the impact driver with 2 ½" screws, screw through the inside of the legs into the 2x4 ladder boards. Take the last 42" 2x4 and attach it to the inside of the opposite side the ladder, even with the bottom ladder rung. Use glue and the impact driver with 2 ½" screws, screw from the inside of the bed.</p>	

Step 8 – Finishing

Flip entire bed over and sand once more with 150 grit paper using orbital sander. Make sure all edges and corners are rounded over and smooth. Wipe entire bed down with tack cloth or microfiber towel to remove dust. Then use the finish of your choice, either brush or spray on.