
Queen Size Platform Lift Storage Bed

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Before beginning this project...

Please read through all of the plans as well as the blog post associated with this project. Always use safety precautions whenever using power tools and follow the manufacturer's suggested guidelines. Make sure to wear proper safety protection (eye protection, hearing protection, etc.) before beginning any project. Cut all pieces per the measurements in the plans, unless noted otherwise.

Materials and Cut List:

Materials Needed:

- 3 - 3/4 sheets veneer plywood
- 6 - 2x3 boards @ 8'
- 6 - 1x3 boards @ 8'
- 2 - 1x6 boards @ 8'
- 8 - 8' long sticks cove moulding (optional)
- 2 - 1 1/4" x 48" zinc-plated punched angle
- 1 1/4" brad nails nails
- 1 1/4" pocket screws
- 2 1/2" pocket screws
- 2 1/2" wood screws
- 2" wood screws
- 1 1/4" wood screws
- 8 - 5/16" tee nuts
- 18 - 5/16" x 3/4" long bolts
- 18 - 5/16" washers
- 10 - 5/16" hex nuts
- Queen Size Platform Lift Hardware

- Paint or stain of choice
- 220 grit sandpaper
- Wood Glue

Cut List:

2 - 3/4" plywood @ 16" x 82"

2 - 3/4" plywood @ 16" x 60" (drill 3/4" pocket holes into each end)

1 - 3/4" plywood @ 16" x 80 1/2" (drill 3/4" pocket holes into each end)

1 - 3/4" plywood @ 27 1/2" x 58"

2 - 2x3 @ 48 1/2" long

2 - 2x3 @ 58" long

2 - 2x3 @ 64 1/2" long

6 - 1x3 @ 16" long

4 - 1x3 @ 77" long (measure and cut to fit)

2 - 1x3 @ 58" long (measure and cut to fit)

2 - 1x6 @ 79" long (measure and cut to fit)

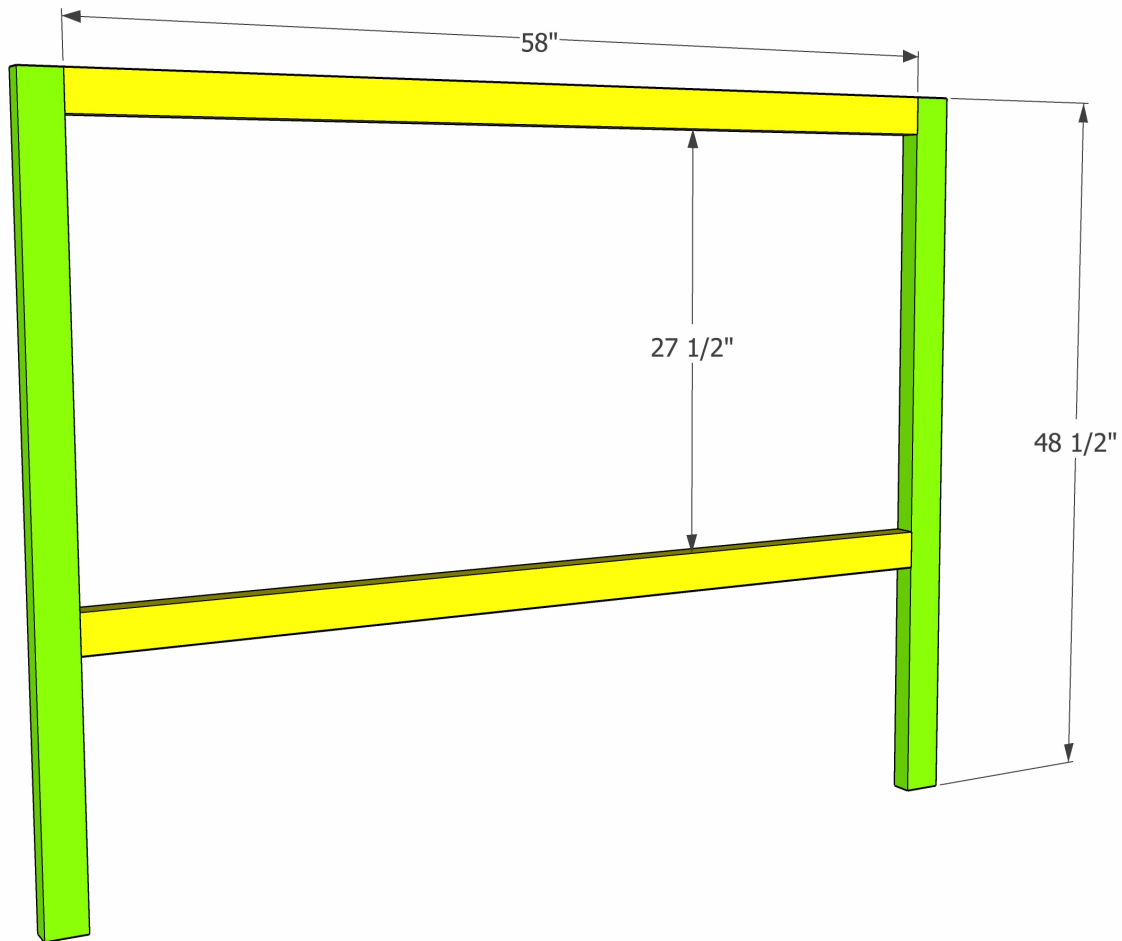
1/4" round wood dowel @ 3' long

*If using cove moulding, measure and cut to size based on interior dimensions of 1x3 trim.

The project plans will go through the process of building and finishing the pieces of the bed separately. Final assembly will be done in the location where the bed will be. It is recommended to watch the accompanying YouTube video to see the assembly process, including the modifications made to the platform lift hardware.

Step One:

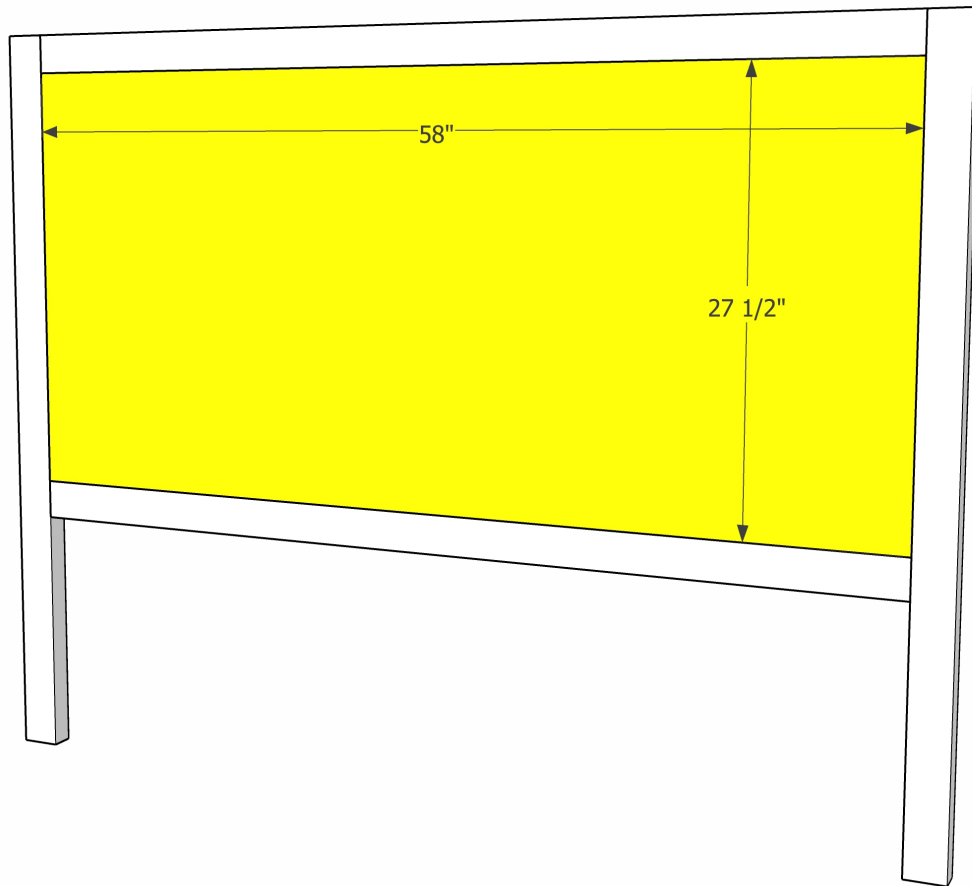
Build The Headboard



Drill 1 1/2" pocket holes into the 58" pieces that make up the headboard frame. Attach with wood glue and 2 1/2" pocket screws, based on the diagram above.

Step Two:

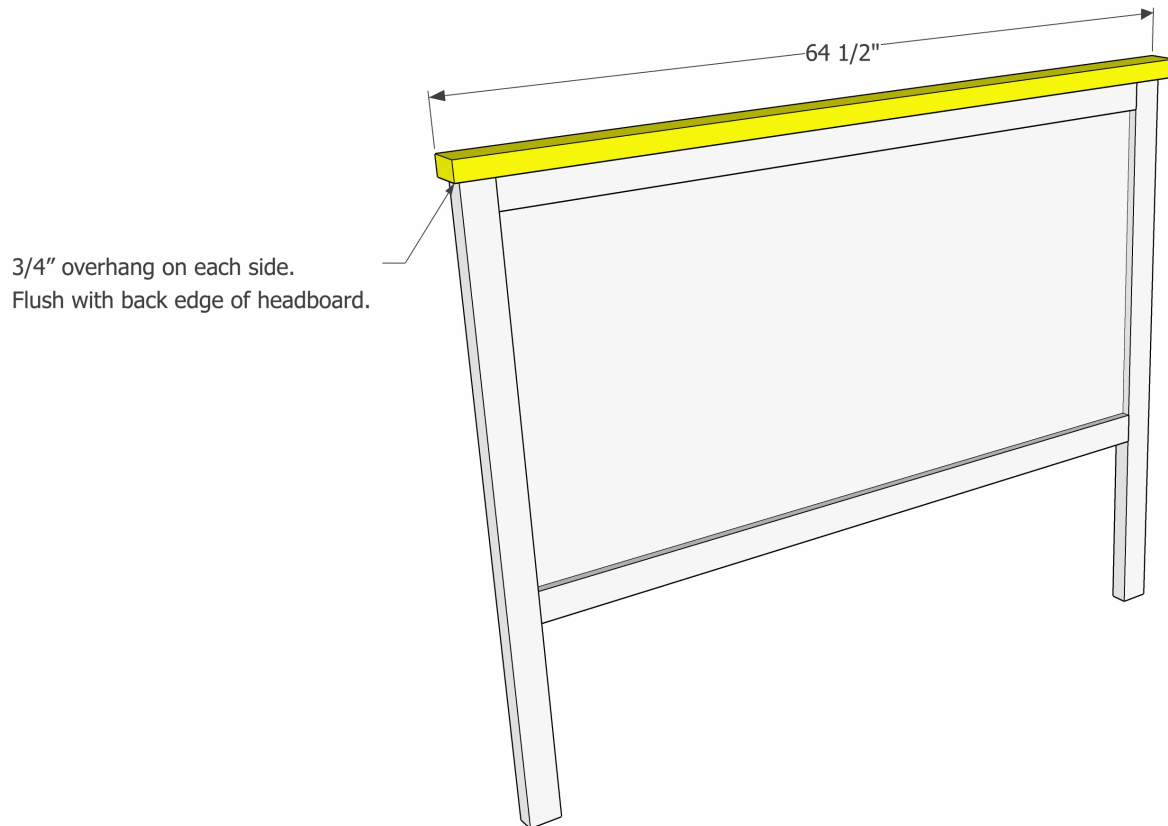
Attach Headboard Face Panel



Drill $\frac{3}{4}$ " pocket holes into each edge of the plywood face panel of the headboard. Attach to the headboard frame so that the back of the panel is flush with the back edge of the frame. Clamp in place and attach with $1\frac{1}{4}$ " pocket screws.

Step Three:

Attach The Cleats

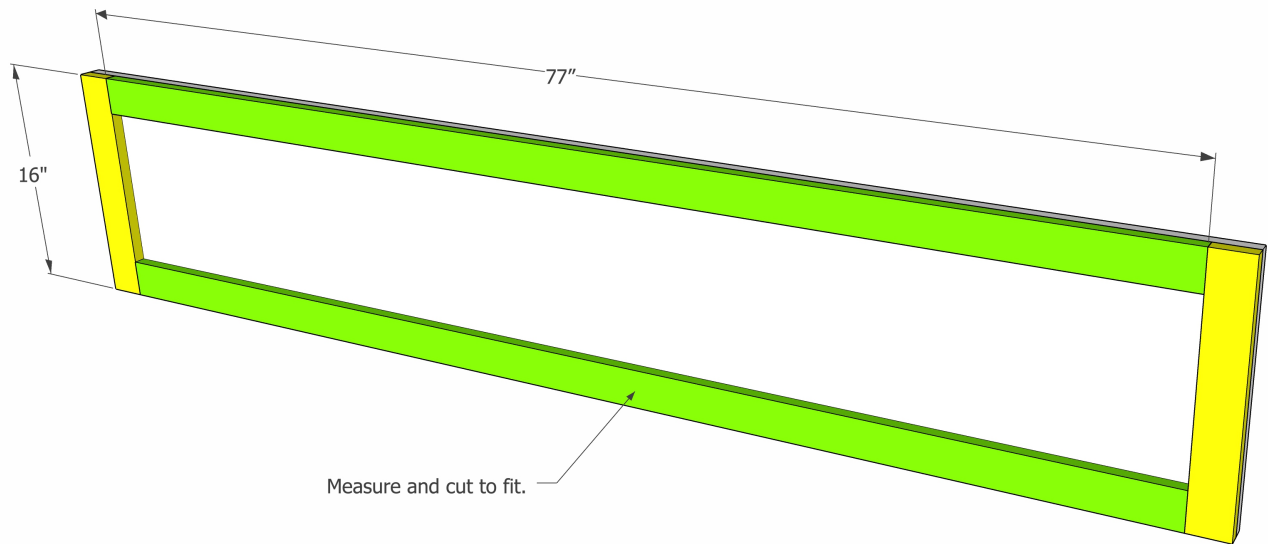


To attach the top board to the headboard, drill countersunk pilot holes into the top face of the 2x3. Add wood glue to the top of the headboard and clamp the 2x3 in place with a 3/4" overhang on each side, and having it flush with the back edge of the headboard. Attach with 2 1/2" wood screws.

Cut 1/4" wooden dowels to approx 2" long. Add glue to the end of the dowels and use to fill the countersunk holes. Once the glue is dry, use a flat saw to cut the remaining dowel off. Sand flush with the 2x3.

Step Four:

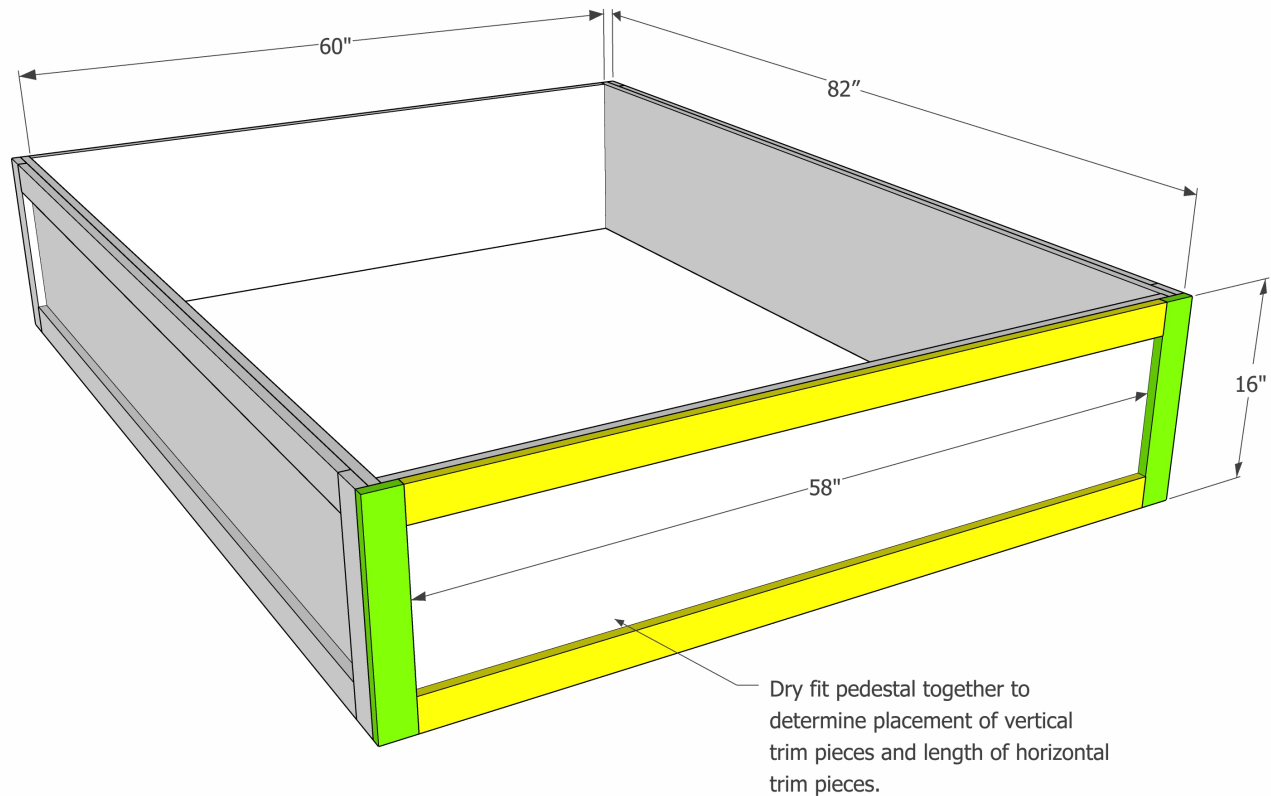
Build The Side Panels



Attach the 16" vertical trim pieces with wood glue and 1 1/4" brad nails. Measure and cut the horizontal trim pieces to fit. Attach with wood glue and 1 1/4" brad nails. Follow these steps for both side panels.

Step Five:

Build The Footboard

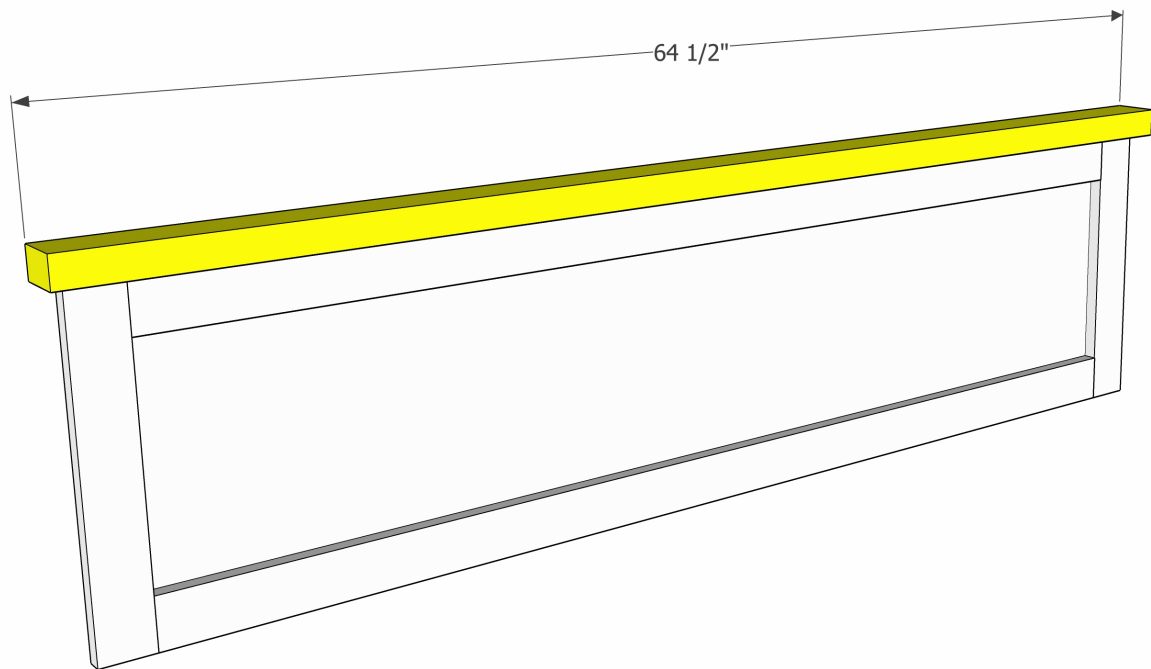


To add the trim to the footboard, dry fit the entire pedestal together and clamp. The 16" vertical trim pieces will overlap the sideboards. Glue and nail the vertical trim pieces into place, taking care not to add glue over the ends of the side panels.

Measure and cut the horizontal trim pieces to size. Glue and attach to the footboard with 1 1/4" brad nails.

Step Six:

Attach The Top To The Footboard



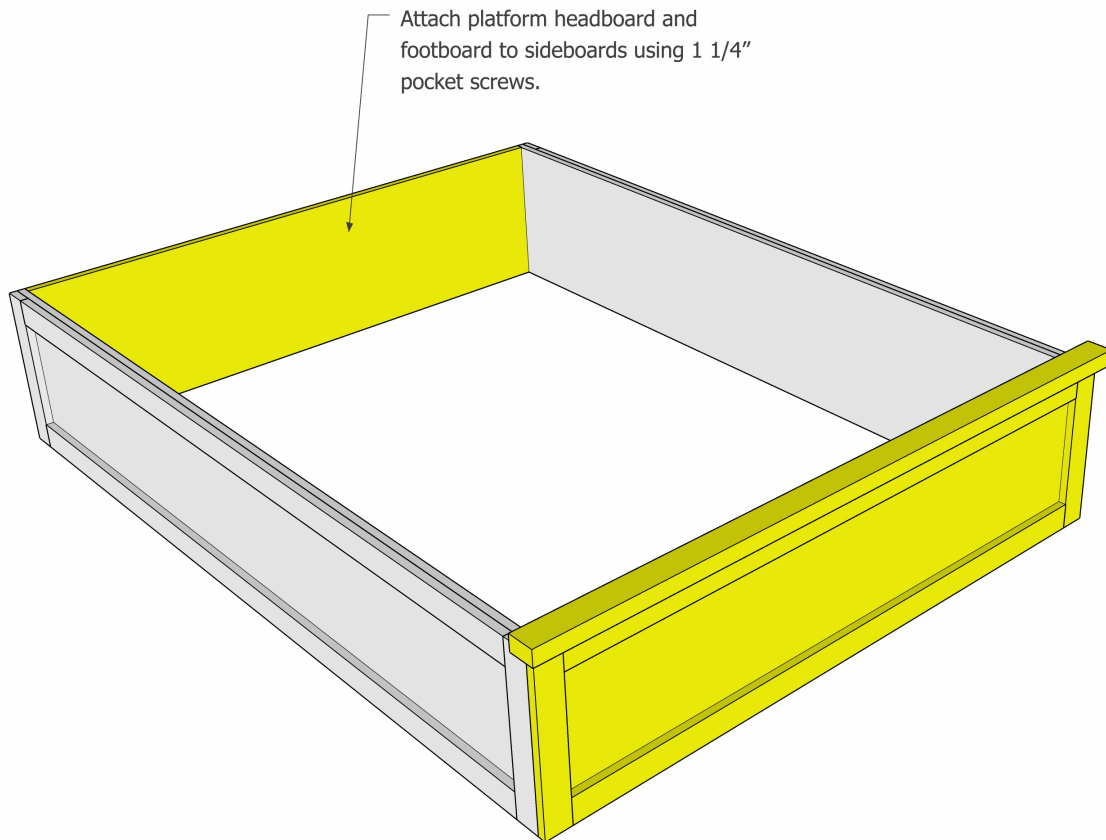
To attach the top board to the footboard, drill countersunk pilot holes into the top face of the 2x3. Add wood glue to the top of the footboard and clamp the 2x3 in place with a 3/4" overhang on each side, and having it flush with the back edge of the footboard. Attach with 2 1/2" wood screws.

Cut 1/4" wooden dowels to approx 2" long. Add glue to the end of the dowels and use to fill the countersunk holes. Once the glue is dry, use a flat saw to cut the remaining dowel off. Sand flush with the 2x3.

**Cove moulding can be added at this point and installed with wood glue and 3/4" brad or pin nails. Fill nail holes and sand entire project. Finish as desired with paint or stain.*

Step Seven:

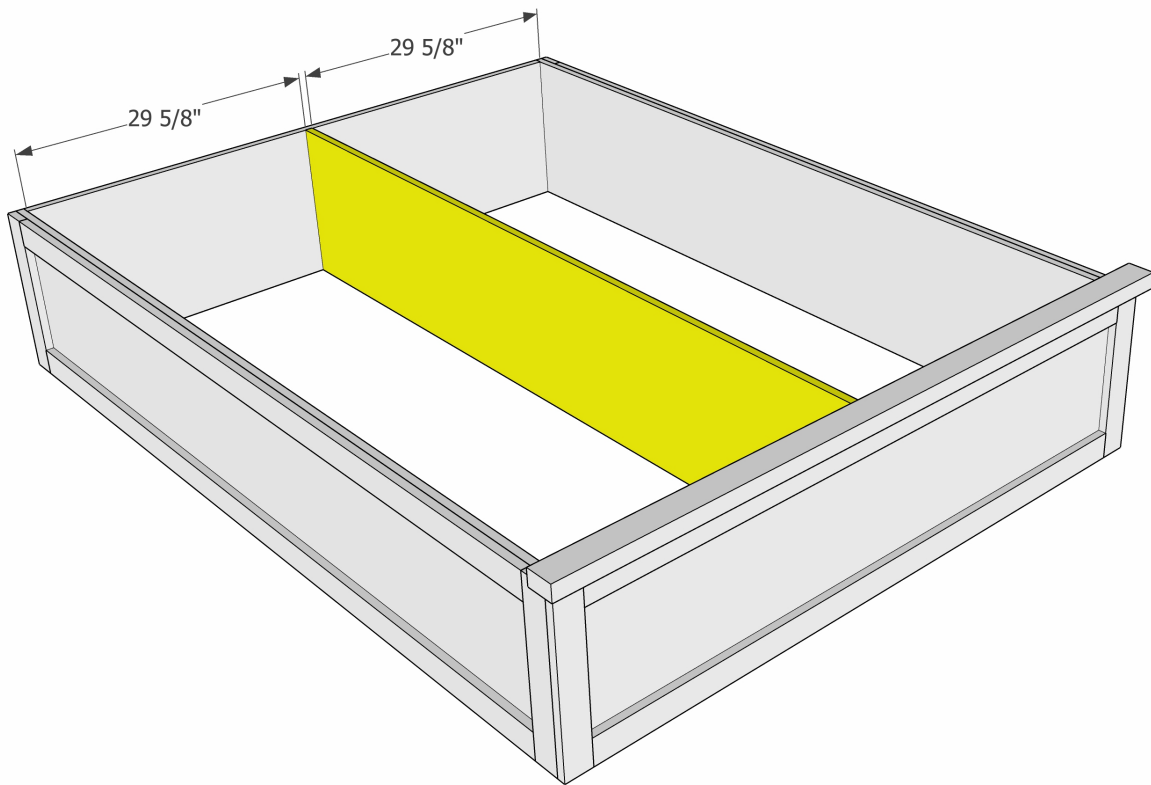
Assemble The Bed Platform



Move the bed pieces to the room where the bed will be assembled. Begin assembly by clamping the head and footboard pieces to the sideboards. Attach with 1 1/4" pocket screws. Do not use wood glue as the project will not be able to be disassembled at a later date without damaging the pieces.

Step Eight:

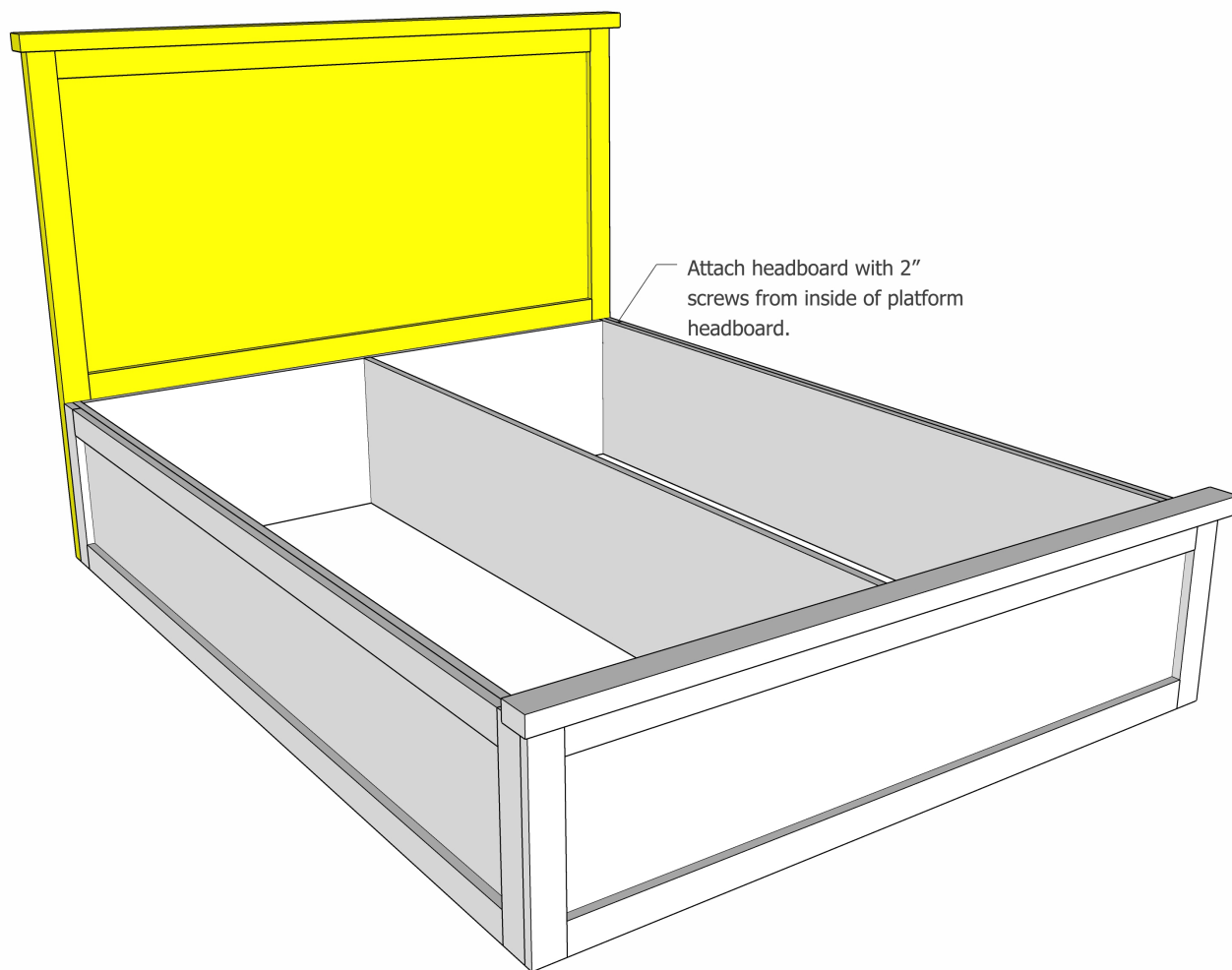
Install The Center Support



Find and mark the center of the bed platform. Install the center divider with 1 1/4" pocket screws. Clamping the divider in place will be difficult, so an extra set of hands is recommended to give back pressure to the headboard and footboard as the screws are driven in.

Step Nine:

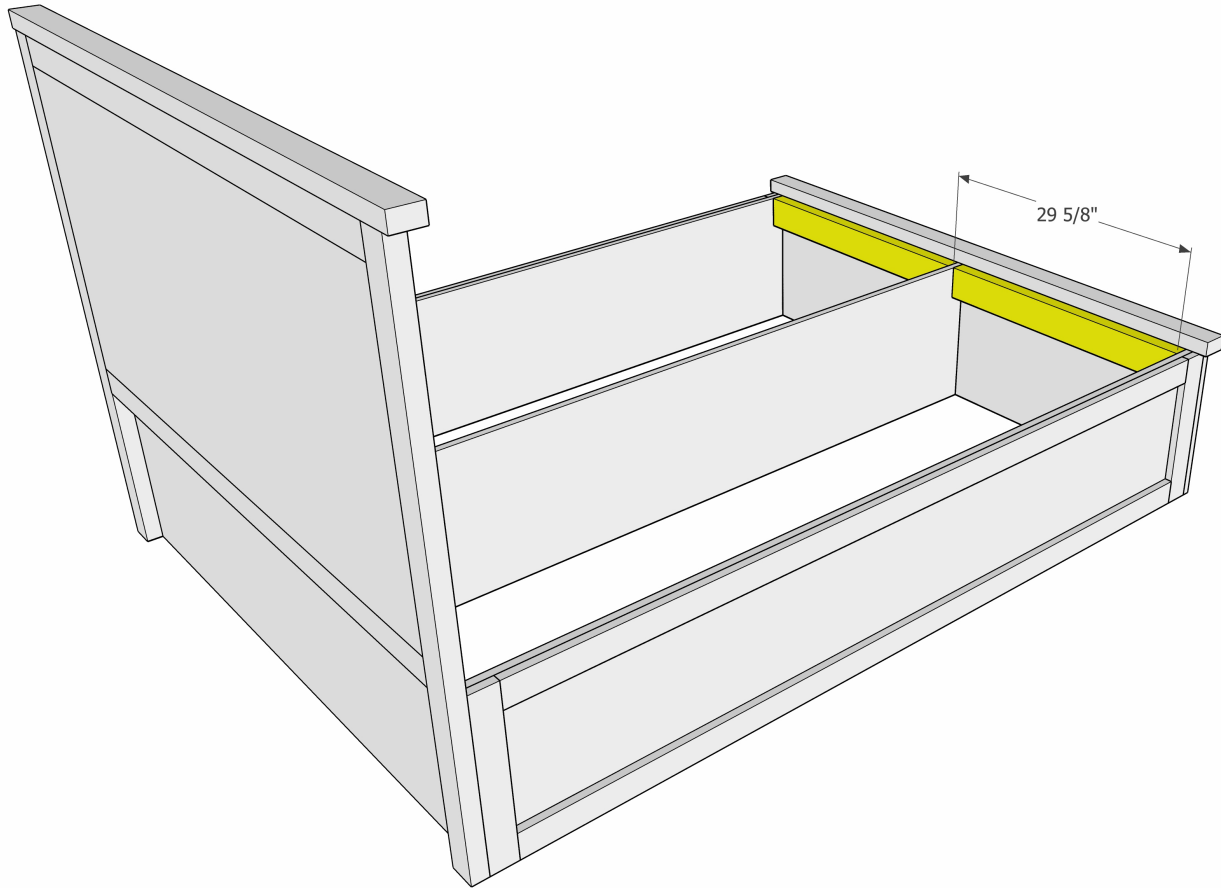
Attach The Headboard



Attach the headboard to the bed platform using 2" wood screws, driven in from the front panel of the platform into the legs of the headboard.

Step Ten:

Attach Cleats To The Footboard



Attach the cleats to the footboard of the bed that will support the foot of the bed frame. Measure and cut them to fit. Attach using wood glue and 2 1/2" wood screws.

Step 11:

Drill Holes For Bed Hardware



Place the lift mechanism hardware so that it is flush with the top edge of the 1x6 cleat. Drill 1/8" pilot holes in the middle of the holes in the hardware, as shown in the diagram above.

Step 12:

Drill Pilot Holes For Tee Nuts



Flip the 1x6 over and, using a 1" forstner bit, drill 1/8" deep pilot holes. Use the 1/8" pilot holes as a centerpoint.



Drill 25/64" holes through the 1/8" pilot holes for the tee nuts to fit. Install the tee nuts and tap into place with a mallet.

Step Thirteen:

Attach The Lift Mechanism



Attach the lift mechanism to the cleats using $\frac{3}{4}$ " long by $\frac{5}{16}$ " bolts and washers.

Step Fourteen:

Attach The Punched Angle Brace



Attach the punched angle brace with $3/4$ " long x $5/16$ " bolts, washers and nuts, using the pre-machine drilled holes in the lift mechanisms. You will need 5 nuts, bolts, and washers for each side of the bed.

Step Fifteen:

Attach The Bed Frame to the Lift Mechanism



Set the bed frame onto the lift mechanism, with the angle braces to the inside edge of the bed frame sides. Using the pre-punched hole in the braces as a guide, drill three 25/65” holes through the bed frame in three places on each side of the bed (one on each end and one in the middle). Attach the bed frame to the punched angle brace using the six included bolts, washers, and nuts in the hardware package.



Attach the gas struts to the lift mechanism and bed frame.

Step Sixteen:

Attach Handles To Bed Frame



Attach the handles to the head and foot of the bed frame using the included wing nuts and washers. One handle goes at the head of the bed frame to support the mattress when the bed is lifted. Two handles go at the foot of the bed frame to assist in lifting the bed.

Once the handles are installed, the mattress can be placed on the bed frame and the bed is now finished. The mattress will act as a counterweight to the gas struts to allow for easy opening and closing.

Step Seventeen:

Notch The Cleat For The Wing Nuts



When the bed is lowered, the wing nuts holding the handles in place may hit the cleat at the foot of the bed. To remedy this, use a 1/2" forstner drill bit to drill holes approximately 1/4" deep, overlapping each other. This creates a notch for the wing nuts to fit and the bed frame to sit flush on the cleats. Clean up the notches with a chisel.