MENDOCINO BENCH

PREP LIST

DIFFICULTY: *MEDIUM*

👥 6 VOLUNTEERS

🕐 6 HOURS

MATERIALS

PREP

(6) 2x2x8ft boards

(9) 2x4x8ft boards

(3) 4x4x8ft boards

BUILD

(3) 2X2X61" pieces

(2) 4x4x23.5" pieces

(1) 2x2x68" piece

(2) 2x4x18" parallelograms

(2) 2x2x71" pieces

(1) 2x4x21.5" parallelogram

(2) 4x4x32" piece - if you are setting the bench in concrete, these will be (2) 4x4x48" pieces

(4) 2x4x26" pieces

(2) 4x4x19.5" pieces - if you are setting the bench in concrete, these will be (2) 4x4x32.5" pieces

(2) 2x4x22.5" pieces

(6) 2x4x68" pieces

(2) 2x4x8.5" pieces

(4) 2x4x71" pieces

3lbs 2 .5" deck screws

2lbs 60d 6" galvanized timber tie nails

Tools listed on page 2

1. Sort materials into piles by like items to ensure you have materials needed to complete project. ☐

2. Take (3) 2x2x8ft boards. Cut each to 61", total of (3) 2x2x61" pieces. Take 1 of the remaining 2x2x8ft boards. Cut to a 2x2x68" piece. ☐

3. Take the 2 remaining 2x2x8ft boards. Cut to a 2x2x71" piece, total of (2) 2x2x71" pieces. Take (1) 4x4x8ft boards and cut from it (2) 4x4x23.5" pieces. ☐

4. Take 2 remaining 4x4x8ft boards. Cut from them (1) 32" piece and (1) 19.5" piece, total of (2) 4x4x32" pieces and (2) 4x4x19.5" pieces (if bench is set in concrete, instead cut (1) 35.5" piece and (1) 48" piece, total of (2) 4x4x35.5" and (2) 4x4x48" pieces). ☐

5. Take (4) 2x4x8ft boards. Cut (1) 2x4x68" piece and (1) 2x4x26" piece from each one, for total of (4) 2x4x68" pieces and (4) 2x4x26" pieces. ☐

6. Take 2 remaining 2x4x8ft boards. Cut (1) 2x4x71" and (1) 2x4x22.5" piece from each one, total of (2) 2x4x71" pieces and (2) 2x4x22.5" pieces. ☐

7. Take 2 remaining 2x4x8ft boards. Cut (1) 2x4x68", (1) 2x4x18", and (1) 2x4x8.5" piece from each, for a total of (2) 2x4x68" pieces, (2) 2x4x18" pieces, and (2) 2x4x8.5" pieces. ☐

8. Take remaining 2x4x8ft board. Cut (1) 2x4x71" piece and (1) 2x4x21.5" piece from it. ☐

9. Angled Cuts: Take the (2) 4x4x23.5" pieces. Measure 2" up and in from one corner. Cut 45° angle between the two marks to create 2 angled armrests. Take the (2) 2x4x18"and use miter saw to cut 10° off each side, creating parallelogram. Take the 2x4x21.5" piece and use miter saw to cut 10° off each side, creating parallelogram. Take (4) 2x4x26" pieces. Measure 1.5" in and up from one corner. Cut 45° angle on line connecting two marks. Take (2) 2x4x22.5" and use miter saw to cut 10° angle on one end of the piece. On other end, measure 1.5" in and up from one corner. Cut 45° angle on line connecting the two marks. ☐

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TOOLS

PREP

Miter saw

Pencil

Tape measure

Carpenter's square

Safety glasses

BUILD

Hammer

Drill

Safety glasses

Level

Pencil

Tape measure

Sandpaper

Screwdriver bit

.25"" drill bit

BUILD LIST

1. Sort materials into piles by like items to ensure you have materials needed to complete project. ☐

2. Assemble Legs: Place 4x4x2.5" arm rest against the 4x4x32" back leg (if you're setting the bench in concrete, you will use the 4x4x48" piece as the back leg). The bottom of the 4x4x23.5" piece should be 19.5" from the bottom of the 4x4x32" (if you are setting the bench in concrete, the bottom of the 23 1/2" piece will be 35.5" from the bottom of the 4x4x48" leg). The angled cut should face downward. Attach the two 4x4s by using two 6" galvanized nails. Repeat this step for the second leg. ☐

3. Place the 2x4x8.5" blocks flush against bottom of armrests on both back legs. Attach with 3 screws per block. ☐

4. Connect the left and right legs with (2) 2x4x68" beams, one beam flat on top of the legs, and one beam underneath the 2x4x8.5" blocks. Use three screws at each connection. ☐

5. Install the (2) 4x4x19.5" front legs (if you are concreting the bench, you will use the 4x4x19.5" legs) underneath the armrests by using 2 nails through the armrests. Leave 16" between the front and back legs. ☐

6. Connect the left and right FRONT legs with (1) 2x4x68" beam. The beam should be 8.5" down from the armrest and attached to the "inside" of the leg. ☐

7. Sandwich the front and back legs with 2x4x26" seat supports (you will need 4 total - 2 for each side of the bench.) They will be attached across the top of the 2x4x68" beams you just attached. ☐

8. Align the supports flush with the back of the back leg (they should overhang in front). Secure with 2 screws into each leg. Install the 2x4x18" pieces with angled ends on the inside of the back legs.

9. Install the 2x4x2.5" center back support in the middle of the two legs. Use two screws through the top brace. Sandwich the brace with two 2x4x22.5" pieces. For each piece, use 1 screw directly into the center back support, 1 screw at an angle down into the beam connecting the back legs, and 1 screw down at an angle into the beam connecting the front legs.

10. Attach rails along the seat of the bench as shown. Use 2 screws for every 2x4 connection point, and 1 screw for every 2x2 connection point. Pre-drill the screws through the 2x2s so they don't split. Space out the pieces before attaching to make sure everything fits. From back to front with 1/2" between each board: 2x4x71" ; 2x2x7" ; 2x2x71" ; 2x4x71" ; 2x2x61" ; 2x2x61" ; 2x4x71".

11. Install the remaining rails along the back as shown below. Use 2 screws for every 2x4 connection point, and 1 screw for every 2x2 connection point. Pre-drill the screws through the 2x2s so they don't split. Space out the pieces before attaching to make sure everything fits. There will be about 1" between each board. From top to bottom the back will be built with the following pieces in the following order, leaving approximately 1in between each board: 2x4x68" ; 2x2x68" ; 2x4x68" ; 2x2x61" ; 2x4x68".

12. If you are going to set the bench in concrete, dig [4] holes with 6" diameter and 16" deep. Use a level to keep the bench straight while filling the holes with concrete.