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## Garden Arm Chair

Build two of these chairs and group them with our Garden Sofa and you'll have a pleasant area for backyard conversation. Or build a single chair, set our Outdoor Pine Occasional Table next to it, and create a great place for drinking iced tea and reading a good book. This comfortable chair is sturdy enough to withstand summer winds, too!


## Materials

- 30 linear feet of $2 \times 4$ pine
- 8 linear feet of $1 \times 4$ pine
- 12 linear feet of $1 \times 2$ pine


## Hardware

- 50 1-1/4" 3d finish nails
- 25 2-1/2" wood screws
- $303-1 / 2$ " wood screws


## Cutting List

| Code | Description | Qty. | Material | Dimensions |
| :---: | :--- | :---: | :--- | :--- |
| A | Horizontal Side | 4 | $2 \times 4$ pine | $15-1 / 2^{\prime \prime}$ long |
| B | Long Vertical Side | 2 | $2 \times 4$ pine | $35^{\prime \prime}$ long |
| C | Short Vertical Side | 2 | $2 \times 4$ pine | $29^{\prime \prime}$ long |
| D | Outer Seat Support | 2 | $2 \times 4$ pine | $20^{\prime \prime}$ long |
| E | Inner Seat Support | 2 | $2 \times 4$ pine | $19-1 / 2^{\prime \prime}$ long |
| F | Wide Slats | 4 | $1 \times 4$ pine | $20 "$ long |
| G | Narrow Slat | 2 | $1 \times 2$ pine | $20 "$ long |
| H | Horizontal Back | 2 | $2 \times 4$ pine | $20^{\prime \prime}$ long |
| I | Back Slats | 7 | $1 \times 2$ pine | $10 "$ long |

## Constructing the Chair Sides



1. Cut four Horizontal Sides (A) from $2 \times 4$ pine, each measuring $15-1 / 2$ inches long.
2. Cut two Long Vertical Sides (B) from $2 \times 4$ pine, each measuring 35 inches long.
3. Cut two Short Vertical Sides (C) from $2 \times 4$ pine, each measuring 29 inches long.
4. Place two Horizontal Sides (A) parallel to each other, and between one Long Vertical Side (B) and one Short Vertical Side (C), as shown in Figure 1. The top Horizontal Side (A) is exactly even with the end of the Short Vertical Side (C), and the bottom Horizontal Side is 14
inches from the other end of that same Vertical Side (C), as shown in Figure 1. Apply glue to the meeting surfaces, and screw at an angle through the edges of the Horizontal Sides (A), into both the long and Short Vertical Sides (B and C), using two 3-1/2" wood screws on each joint.
5. Repeat Step 4 to assemble the second side.


## Adding the Seat

1. Cut two Outer Seat Supports (D) from $2 \times 4$ pine, each measuring 20 inches long.
2. For the next step you may want to ask for a willing helper to assist. If no one is available (or willing), use a bar clamp to hold the assembly while you screw it together. Place the side assemblies on one 35 "edge, parallel to each other and 20 inches apart. Fit one Outer Seat Support (D) between the two side assemblies, 14 inches from the upper edge of the two side assemblies. The top edge of the Outer Seat Support (D) should be exactly even with the top edge of the lower Horizontal Side (B) as shown in Figure 2. Apply glue to the meeting surfaces, and screw through the side assemblies into the ends of the Outer Seat Supports (D), using two 2-1/2" wood screws on each joint.
3. Turn the assembly upside-down, and attach the remaining Outer Seat Support (D) to the opposite side of the side assemblies, in the same manner that you used in Step 2.
4. Cut two Inner Seat Supports (E) from $2 \times 4$ pine, measuring 19-1/2 inches long.
5. Fit one Inner Seat Support (E)--wide surface up--between the two Outer Seat Supports (D), 1/2-inch below the top edge of the lower Horizontal Side (B), as shown in Figure 3. Screw through both of the Outer Seat Supports (D) into the ends of the Inner Seat Support (E) using two 2-1/2" screws. Also screw through the lower Horizontal Side (B) into the edge of the Inner Seat Support (E) using three $2-1 / 2$ " screws spaced evenly along the joint.
6. Repeat Step 5 to attach the remaining Inner Seat Support (E) on the opposite side of the chair.


Figure 3

## Adding the Seat Slats

1. The chair seat is comprised of two different widths of wood, which are alternated. Cut four Wide Slats (F) from $1 \times 4$ pine, each measuring 20 inches long.
2. Cut two Narrow Slats (G) from $1 \times 2$ pine, each measuring 20 inches long.
3. Begin by placing a Wide Slats (F) over the seat support ( E ) on the front of the chair. Then place a Narrow Slat (G) next to it. Continue alternating the Wide and Narrow Slats, ending with two Wide Slats (F) at the back of the seat as shown in Figure 6. Adjust the spacing so that the slats are approximately $3 / 8$-inch apart. Nail through each of the slats ( F and G) into the seat supports (E). Use two 1$1 / 4$ " nails on each of the Wide Slats (F), and one 1-1/4" nail on each of the Narrow Slats (G).

## Constructing the Chair Back

1. Cut two Horizontal Backs (H) from $2 \times 4$ pine, each measuring 20 inches long.
2. Cut a $3 / 4$-inch-wide dado, $1 / 2$-inch deep down the length of one 20 " edge of each of the Horizontal Backs (H), as shown in Figure 4.

Figure 4


3. Cut seven Back Slats (I) from $1 \times 2$ pine, each measuring 10 inches long.
4. Working on a level surface, place the Horizontal Backs (H) parallel to each other, with the dadoes to the inside, as shown in Figure 5. Fit the ends of the seven Back Slats (I) into the dadoes in each of the two Horizontal Backs (H). The spacing between the slats should be approximately $1-1 / 2$ inches. In fact, we used an extra slat as a spacer. When the Back Slats (I) are properly fitted into the dadoes, the distance between the two Horizontal Backs (H) should measure 9 inches. The two outer Back Slats (I) should be even with the ends of the Horizontal Backs. When the position is perfect, the overall measurements of the back assembly should be 16 inches high and 20 inches wide. Apply glue to the meeting surfaces, and secure the slats in place by nailing through the dadoed edge of the Horizontal Backs $(\mathrm{H})$ into the ends of the Back Slats (I) using two 1-1/4" nails on each joint.
5. Now you are ready to fit the back assembly between the two sides. To make the chair more comfortable, the back assembly is tilted at an angle--out at the top, and in at the bottom. The tilt angle is determined by the width of the $2 \times 4$ on the side assemblies. The lower edge of the back is fitted flush with the front edge of the Long Vertical Sides (B), and the upper edge of the back is fitted flush with the outer edge of the Long Vertical Sides (B), as shown in Figure 6. When you have the back fitted perfectly, secure the assembly with bar clamps. Screw through the Long Vertical Sides (B) into the edges of the Horizontal Backs (H) using two 3-1/2"screws on each joint.

## Finishing

1. Fill any cracks, crevices, or screw holes with wood filler, and thoroughly sand all surfaces of the completed chair.
2. Seal and paint or stain your chair the color of your choice.


Figure 6

