ProWood® Project Plan

BIKE RACK

With ProWood® Professional Grade pressure-treated lumber and balusters, you can easily build an inexpensive and functional outdoor bike rack that will accommodate up to 3 bicycles.

Materials
• One 2” x 4” x 10’ ProWood® Pressure-Treated Lumber
• Fifteen 2” x 2” x 42” ProWood® Pressure-Treated Balusters Beveled 1-End
• One Box of 2” #8 Exterior Wood Screws
• Wood Glue

Basic Tools
• Circular or Table Saw
• Power Drill and 1/8” Drill Bit
• Countersink Bit
• Screwdriver (or Power Drill with Screwdriving Bit)
• Tape Measure
• Carpenter’s Square

If your wood project touches the ground, use pressure-treated lumber that is rated for ground contact to ensure long-term performance.

Make your outdoors great with other project plans available at www.ProWoodLumber.com
Cut the Lumber and Balusters to Size

**Caution:** Always wear gloves, a dust mask and eye protection when sawing, sanding or machining wood.

Using a circular or table saw and a clean, flat and level surface, cut the following ProWood® pressure-treated wood for the components of the bike rack. Refer to the illustration above to help identify the different pieces of wood that are needed for the bike rack.

**The Bottom Frame**
Cut the 2” x 4” x 10’ ProWood® pressure-treated lumber to size.
- Bottom Frame: Two 2” x 4” x 33” and two 2” x 4” x 24”

**The Wheel Guides**
Cut the 2” x 2” x 42” ProWood® pressure-treated balusters to size. Make sure one end of each cut piece has a beveled end.
- Vertical Wheel Guides: Four 2” x 2” x 24”
- Horizontal Wheel Guides: Six 2” x 2” x 27”
- Diagonal Wheel Guides: Four 2” x 2” x 34”

**The Horizontal Brace**
Cut one 2” x 2” x 42” ProWood® pressure-treated baluster to size. Make sure both ends of this piece are square cut and have no beveled ends.
- Horizontal Brace: One 2” x 2” x 24”

**General Assembly Advice**
- Establish a screw pattern to enhance the overall look and feel of the final assembled product.
- Pre-drill all screw holes with a 1/8” drill bit to ease screw insertion into the material and to prevent wood splitting.
- Countersink all screws so the head of a countersunk screw, when placed in the hole, will sit flush with or below the surface of the surrounding material.
- Use wood glue to help strengthen all fastened components.

Assemble The Bottom Frame

Refer to the illustration below.

**Tip:** Pre-drill all screw holes with a 1/8” drill bit to ease screw insertion into the material and to prevent wood splitting.
- Use a pencil and measure and mark 6” in from the inside of one end of both 2” x 4” x 33” side boards.
- Place one of the 24” frame pieces at these marks to allow for a 6” overhang.
- Place the other 24” frame piece flush with the other inside end of the frame side boards.
- Attach all pieces with 2” #8 exterior wood screws and wood glue.
Attach the Vertical Wheel Guides

Attach the four 2” x 2” x 24” vertical wheel guides to the bottom frame using 2” #8 exterior wood screws and wood glue. Refer to the illustration below.

Tip: Pre-drill all screw holes with a 1/8” drill bit to ease screw insertion into the material and to prevent wood splitting.

- Using a tape measure and a pencil, measure and mark 7” in from each inside corner of both 24” bottom frame boards. Note: this wheel guide spacing measurement will accommodate a variety of bike tire widths upon project completion (standard spacing is approximately 3”). This measurement may be adjusted to accommodate different bike tire needs.
- Attach the 2 outer vertical wheel guides to the inside of the bottom frame. Make sure these wheel guides are flush with the inside of the bottom frame. Screw through the wheel guides and into the inside back of the bottom frame.
- Center and align the 2 inner vertical wheel guides at the 7” marks on the inside of the bottom frame back. Use a carpenter’s square to make sure the vertical wheel guides are square to the frame. Screw through the wheel guides and into the inside back of the bottom frame.

Attach the Diagonal Wheel Guides

Attach the four 2” x 2” x 34” vertical wheel guides to the bottom frame and the vertical wheel guides using 2” #8 exterior wood screws and wood glue. Refer to the illustration below.

Tip: Pre-drill all screw holes with a 1/8” drill bit to ease screw insertion into the material and to prevent wood splitting.

- Attach the 2 outer diagonal wheel guides to the inside of the bottom frame. Make sure the beveled edges are flush with the frame’s inside and bottom surfaces. Screw through the outside of the frame’s front and into the diagonal guides.
- Attach the 2 outer diagonal wheel guides to the top beveled edge of the vertical wheel guides with screws and wood glue.
- Center and align the 2 inner diagonal wheel guides at the 7” marks on the inside of the bottom frame front and repeat the above process.
Attach the Horizontal Wheel Guides

Attach the six 2” x 2” x 27” horizontal wheel guides to the bottom frame using 2” #8 exterior wood screws and wood glue. Refer to the illustration below.

Tip: Pre-drill all screw holes with a 1/8” drill bit to ease screw insertion into the material and to prevent wood splitting.

- Attach the horizontal wheel guides to the top edges of the bottom frame. Make sure these wheel guides are flush with the sides of the diagonal and vertical wheel guides and the bottom frame.
- Screw through the top of the horizontal wheel guides and into the bottom frame.

Attach the Horizontal Brace

To strengthen the wheel guides, attach one 2” x 2” x 24” horizontal brace to the vertical wheel guides using 2” #8 exterior wood screws and wood glue. Refer to the illustration below.

Tip: Pre-drill all screw holes with a 1/8” drill bit to ease screw insertion into the material and to prevent wood splitting.

- Position the horizontal brace directly underneath the peak of all vertical and diagonal wheel guides.
- Screw through the outside of the four vertical wheel guides and into the horizontal brace.