



ProWood® Project Plan

# LADDER BALL GAME SET

With ProWood® Professional Grade pressure-treated lumber, you can easily build this sturdy ladder ball game set and add competitive fun and excitement to outdoor games. This project plan includes materials and instructions for building two complete sets of ladder ball frames and two sets of bolas.

## Materials

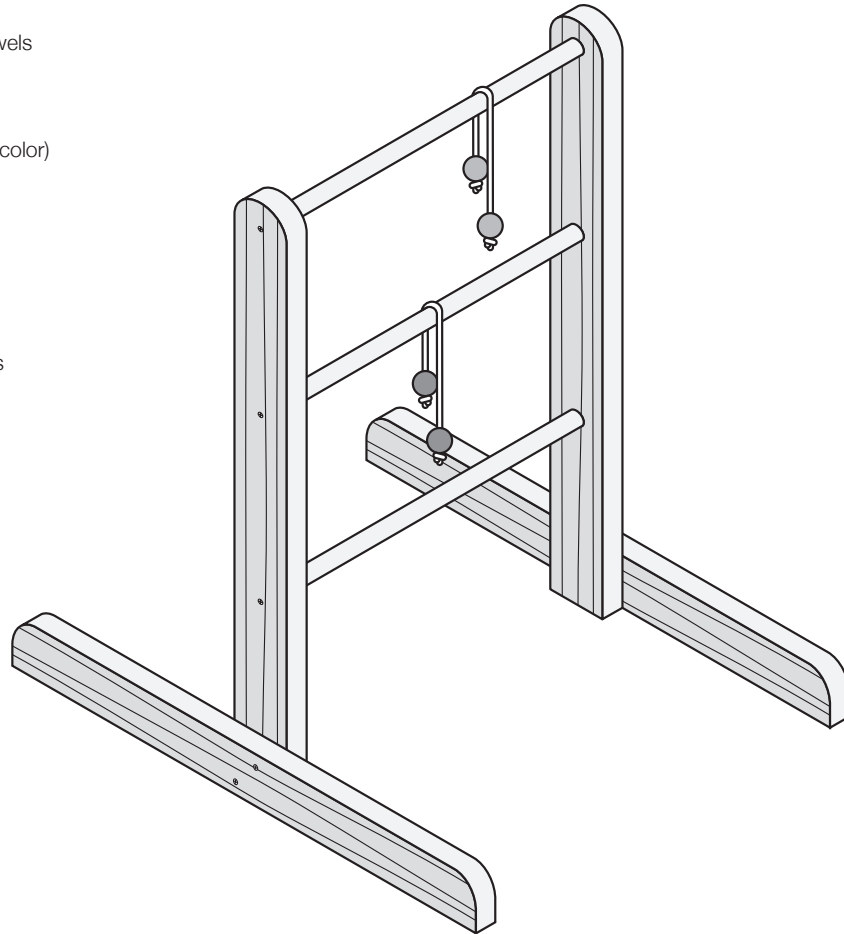
- Four 2" x 4" x 8' ProWood® pressure-treated boards
- Three 1" x 48" round wood dowels
- One box of 2-1/2" #8 galvanized all-purpose screws
- Twelve inexpensive golf balls (six of one color; six of another color)
- One 3/8" x 12' nylon rope
- 1/2" to 3/4" masking tape
- Exterior wood glue

## Basic Tools

- Circular or table saw
- Jigsaw
- Drill and 3/32" and 3/8" drill bits
- 1" spade bit
- Countersink bit
- Screwdriver (or power drill with screwdriving bit)
- Tape measure
- Carpenter's square
- Carpenter's level
- Compass
- Utility knife or scissors
- Assorted sandpaper (coarse, medium and fine grit)

### Optional:

- Putty knife
- Quality exterior primer and paint or stain and sealer
- Paint or stain brush



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

Fig. 1 Front Elevation

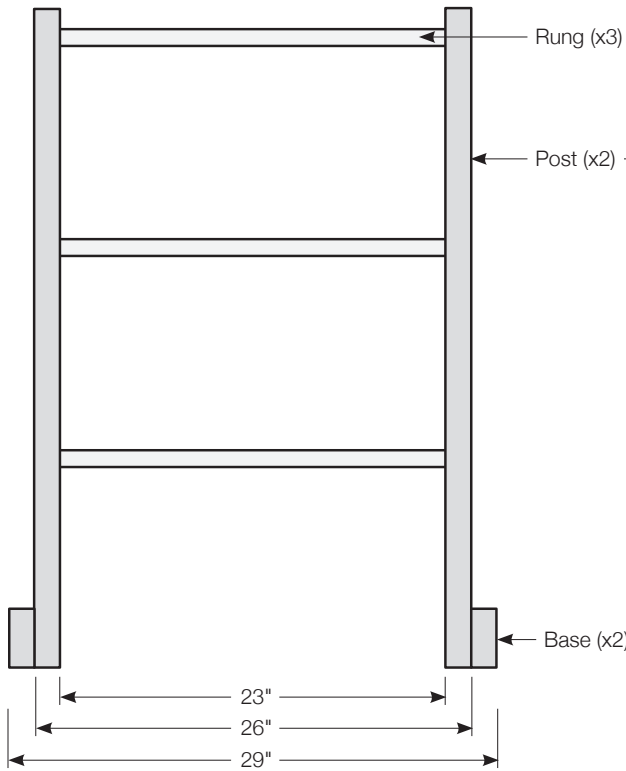


Fig. 2 Side Elevation

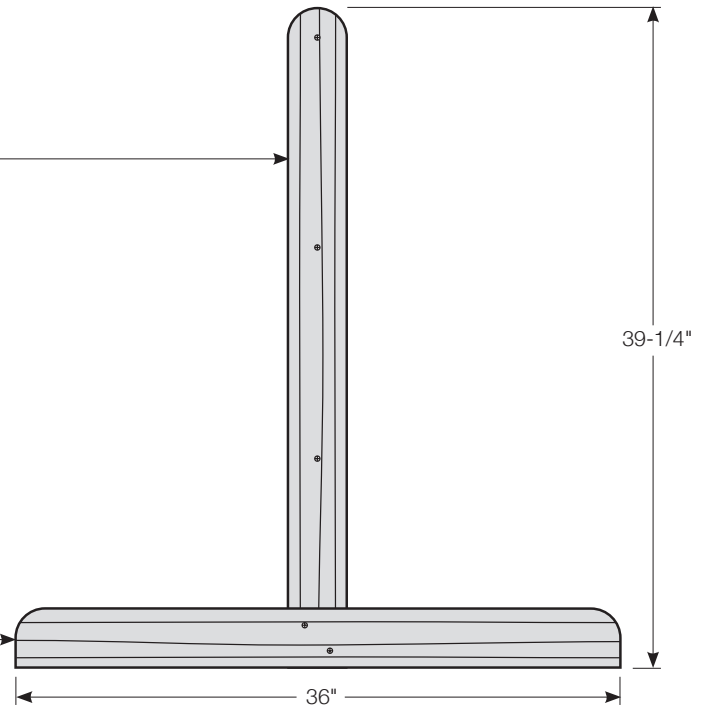


Fig. 3 Post

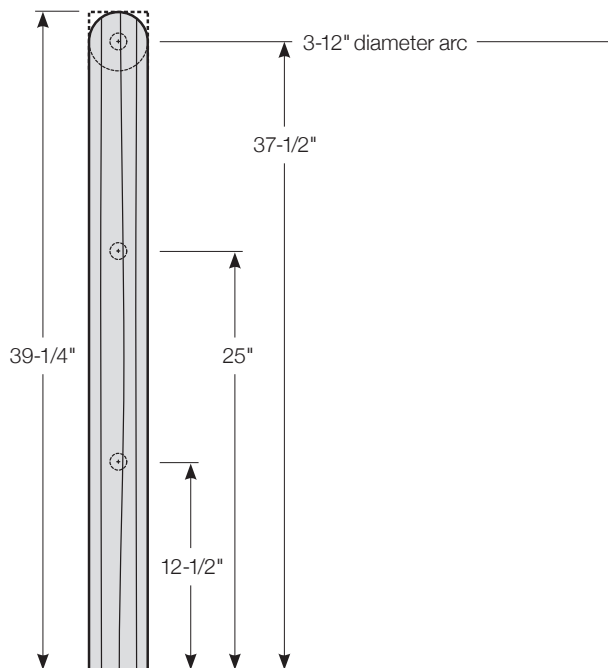


Fig. 4 Base

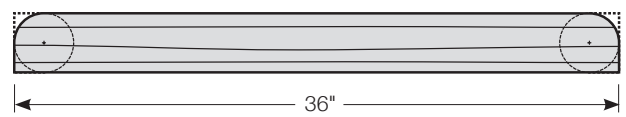
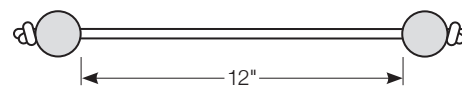


Fig. 5 Bola Ball Hole



Fig. 6 Bola Ball Distance



## Cut Lumber to Size

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

Using a circular or table saw on a clean, flat, level surface, cut the wood for the components of the ladder ball frames as follows.

### From each 2" x 4" x 8' board:

Refer to Fig. 1 and 2 illustrations on page 2.

- (1) Ladder Post at 2" x 4" x 39-1/4"
- (1) Ladder Base at 2" x 4" x 36"

### From each 1" x 48" round wood dowel:

Refer to Fig. 1 illustration on page 2.

- (2) Ladder Rungs at 1" x 24"

## General Assembly Advice

- Periodically use a carpenter's square and level to insure the integrity of the final assembled project.
- Establish a screw pattern to enhance the overall look and feel of the final assembled product.
- Apply exterior wood glue to joining-material surfaces before attaching the pieces together with screws or nails.
- Pre-drill all screw holes to ease the insertion of screws into the wood and prevent splitting.
- Countersink all screws so the head of a countersunk screw, when screwed into the hole, will sit flush with or below the surface of the surrounding material.

## Finishing Advice

After this project has been assembled, consider sanding and preserving it with either paint or stain.

- Use a putty knife and apply exterior wood putty to all countersunk holes.
- When putty has dried, use coarse, medium and fine grit sandpaper to smooth and debur all surfaces.
- Wipe all surfaces clean of dust and particles.
- Apply a quality exterior stain and sealer or primer and paint.

## Prepare Posts

Refer to Fig. 3 illustration on page 2.

Starting at the bottom end of a Post and working upwards, use a pencil and a tape measure and mark 12-1/2", 25" and 37-1/2" along the Post center. Double check all measurements to insure accuracy.

Using a compass, draw a 3-1/2" diameter circle out from the 37-1/2" mark making sure the circular shape intersects the center of the Post top and its left and right sides.

Using a jig saw, cut the 3-1/2" diameter arc so the top of the Post is rounded.

Using a drill with a 1" spade bit, drill 1/2" deep holes for the 1" Rungs at the 12-1/2", 25" and 37-1/2" center marks.

Repeat this process for the other three Post components.

## Prepare Bases

Refer to Fig. 4 illustration on page 2.

Use a pencil and a tape measure and mark 1-3/4" in from the left and right end of a Base and along its center. Double check all measurements to insure accuracy.

Using a compass, draw a 3-1/2" diameter circle out from each of the two 1-3/4" marks making sure the circular shapes intersect the center of the Base end and its top sides.

Using a jig saw, cut the top 3-1/2" diameter arc so only the top outer corners of the Base are arched.

Repeat this process for the other three Base components.

## Attach Bases to Posts

Refer to Fig. 2 illustration on page 2.

Lay a Post down on a flat level surface with its 1" x 1/2" drilled holes facing against the surface.

Place and center align a Base on top of the Post and along the Post bottom. Make sure the bottom surfaces of the Post and Base are flush.

Attach the Base to the Post using two 2-1/2" screws.

Repeat this process for attaching the other three Bases to each of the three remaining Posts.

## Attach Rungs to Posts

Refer to Fig. 1 and 2 illustrations on page 2.

With two assembled Posts standing upright and facing each other approximately 24" apart, insert a 1" x 24" round wood dowel into each of the 1" x 1/2" Rung holes.

Attach the Posts to the Rungs using a 2-1/2" screw from the outside of the Post.

Repeat this process for attaching the other three Rungs to the remaining pair of assembled Posts.

## Construct Bolas

Refer to Fig. 5 and 6 illustrations on page 2.

Drill a 3/8" hole through the center of each golf ball.

Wrap masking tape around the 3/8" nylon rope every 24" (this will keep the rope from fraying when cut and aid in the melting process). Using a utility knife or scissors, cut through the middle of each piece of tape to make six 24" rope sections.

Using a match or a lighter, melt only one end of each rope section.

Remove the tape from the melted rope ends and tie a knot.

Slide two golf balls of the same color onto each rope.

Remove the tape and tie a knot on the opposite rope ends making sure the balls are 12" apart and secured from slipping off the rope.

Cut off the excess rope at the end of each knot.

Repeat the same process for melting the second end of each rope.

Clean, odorless, nonstaining and nonirritating, ProWood MCA (micronized copper azole) treated lumber is safe for humans, animals and the environment. The process we use to treat has gained Environmentally Preferable Product (EPP) status as certified by Scientific Certification Systems (SCS), a third-party certification services and standards development company. The preservative in ProWood MCA treated lumber has earned NAHB's Green Approved Product Certification and the GREENGUARD Children & Schools Certification.



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