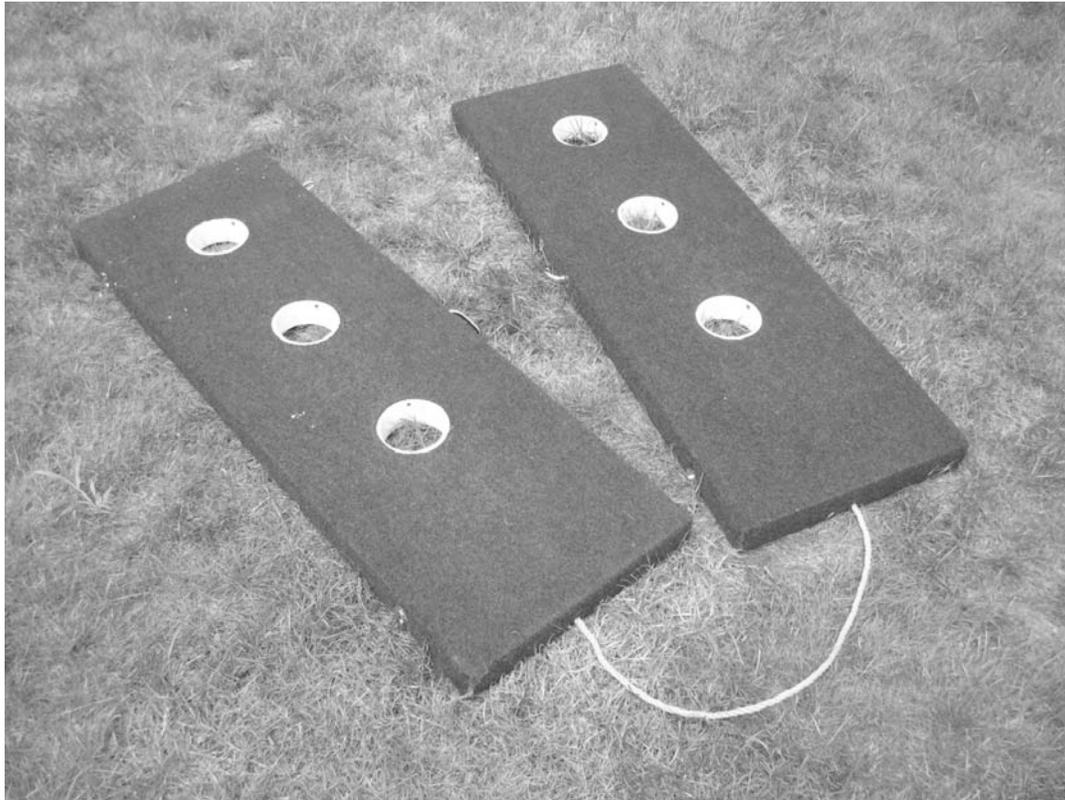


3 Hole Washers



Design by Jeremy Hermann
(<http://www.washerplayers.net/> Username: hermanjc)



Materials Required:

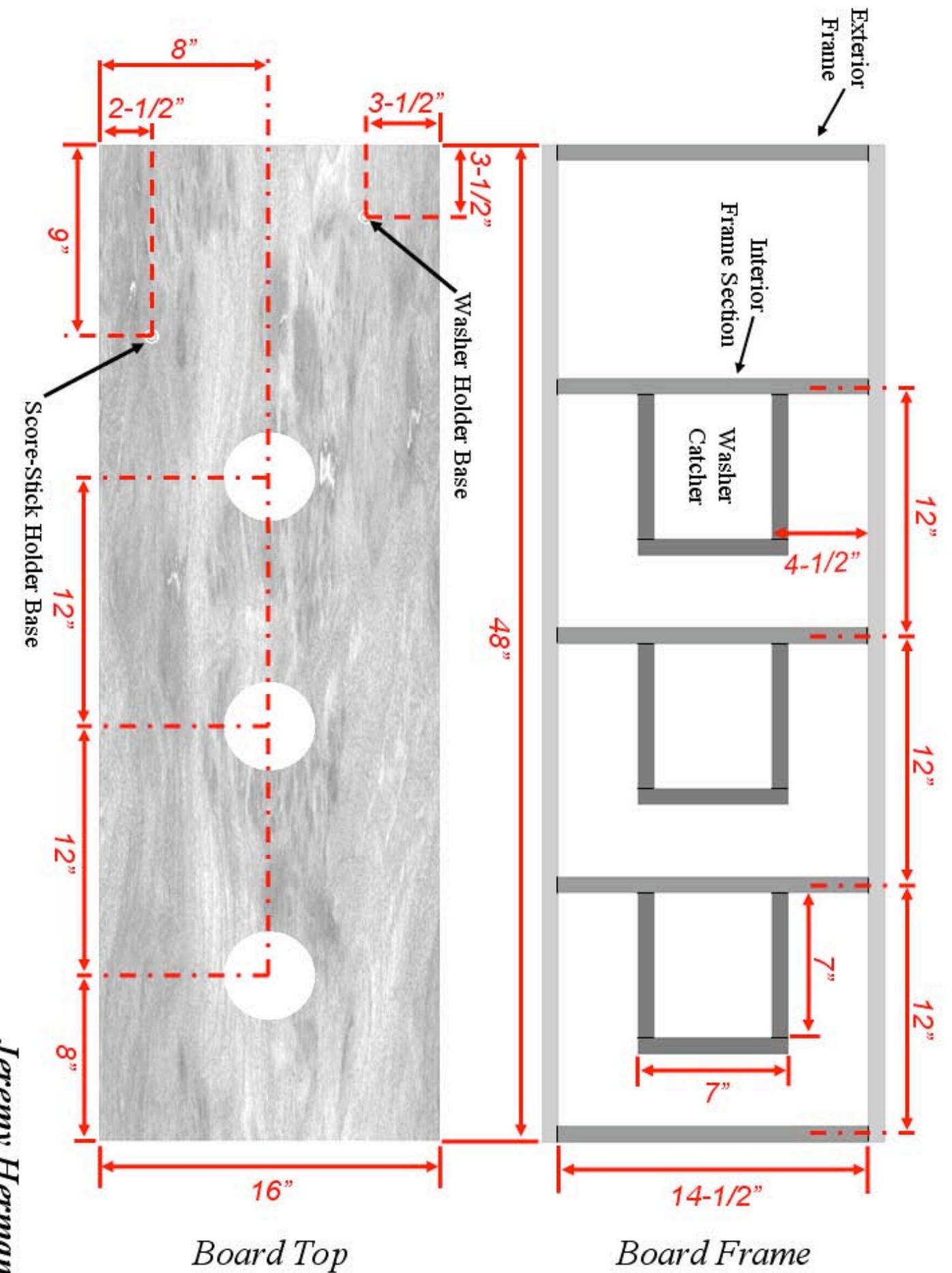
X	Item	Quantity	Notes
	3/8" (Min) Plywood	2 Sheets at 16" by 48"	Probably by 2' by 4' sheets or one 1 large sheet
	1" x 2" x 8' Lumber	5	Can use larger lumber (i.e. 1x3 or 2x4) but this design is meant to be light weight
	1/4" x 1-3/4" Hex Bolts	2	
	1/4" Nut	2	
	1/4" Wing Nut	2	
	1-1/4" O.D. Washer	1	
	1-1/4" Deck Screws	Box	
	Outdoor Carpet	6' x 8' Roll	Can be found at Home Depot (generally < \$20)
	All Purpose/Flooring Adhesive		Optional
	1/4" Staples	Box	
	Braided Nylon Rope	15'	
	2-1/2" OD Washers	6	
	Drawbolt Case Latch	2 or 4	
	Large Handle	1 or 2	

Tools Required:

X	Tool	Notes
	Mitre Saw (or hand saw)	For Cutting Frame Lumber
	Table Saw	For Cutting Plywood
	Sander (Powered if Avail.)	
	Measuring Tape	
	Rulers	
	Compass	For Marking Holes
	Power Drill	
	Toothed Trowel	For Spreading Adhesive
	Utility Knife	
	1/4" Drill Bit	
	5/8" Drill Bit	
	Jig Saw	For Cutting Holes

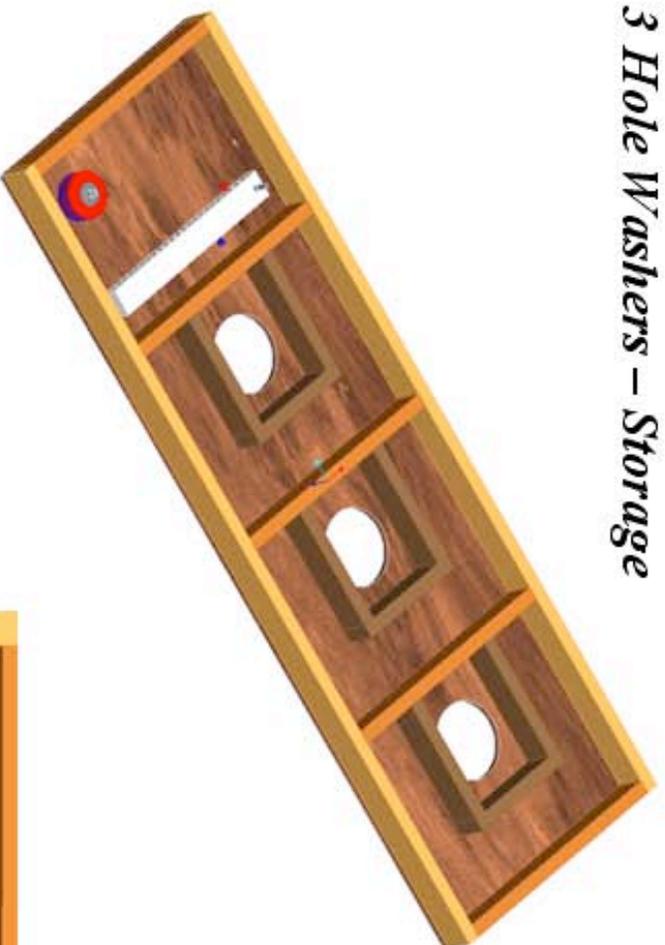


3 Hole Washers – Lumber Dimensions



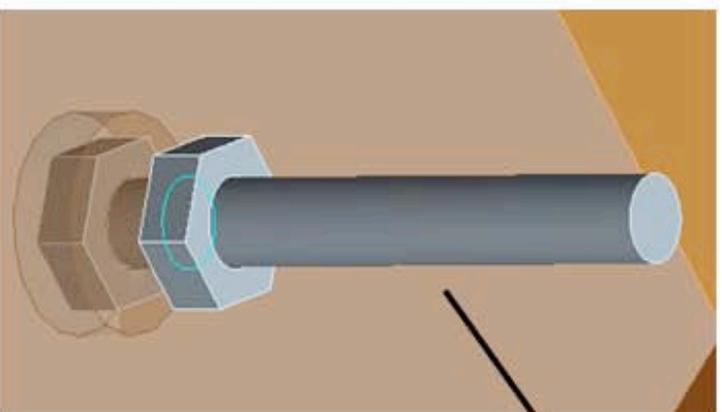
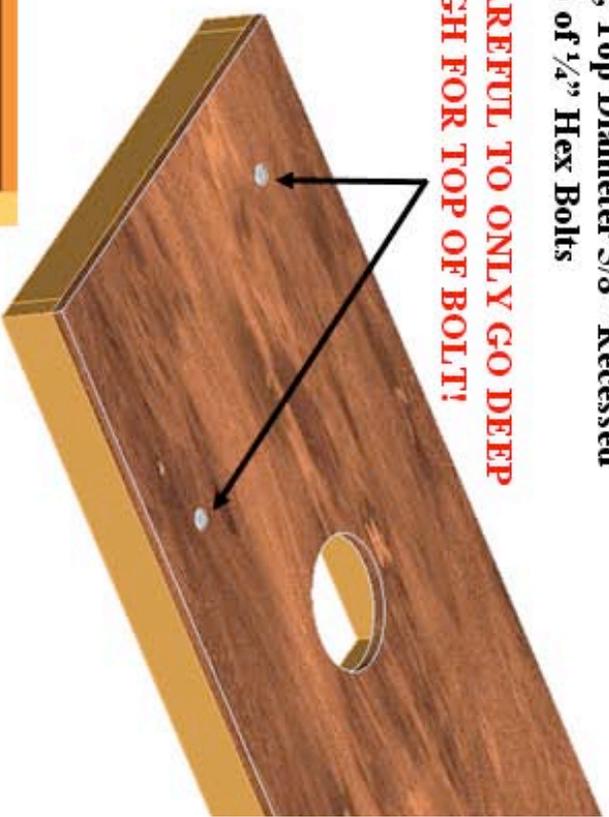
Jeremy Herman

3 Hole Washers – Storage

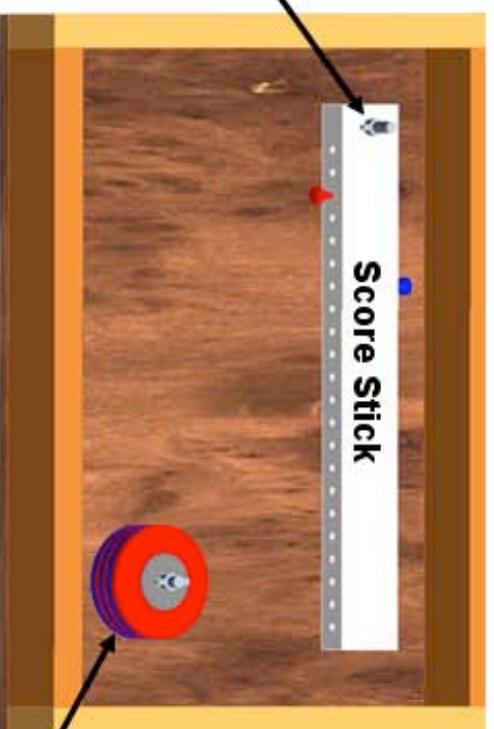


2 Holes, Top Diameter 5/8" Recessed for Top of 1/4" Hex Bolts

BE CAREFUL TO ONLY GO DEEP ENOUGH FOR TOP OF BOLT!



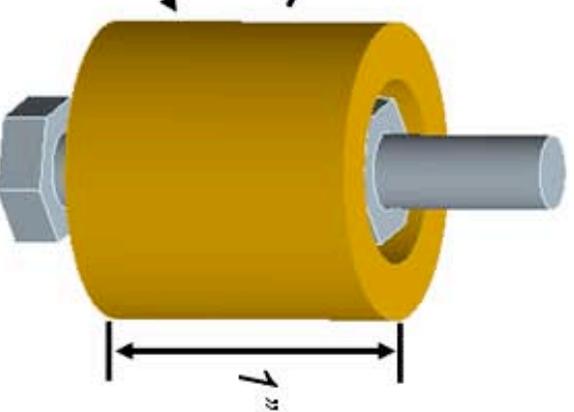
Score Stick Holder



Score Stick

Washer Holder

1" Diameter Dowel/Rod



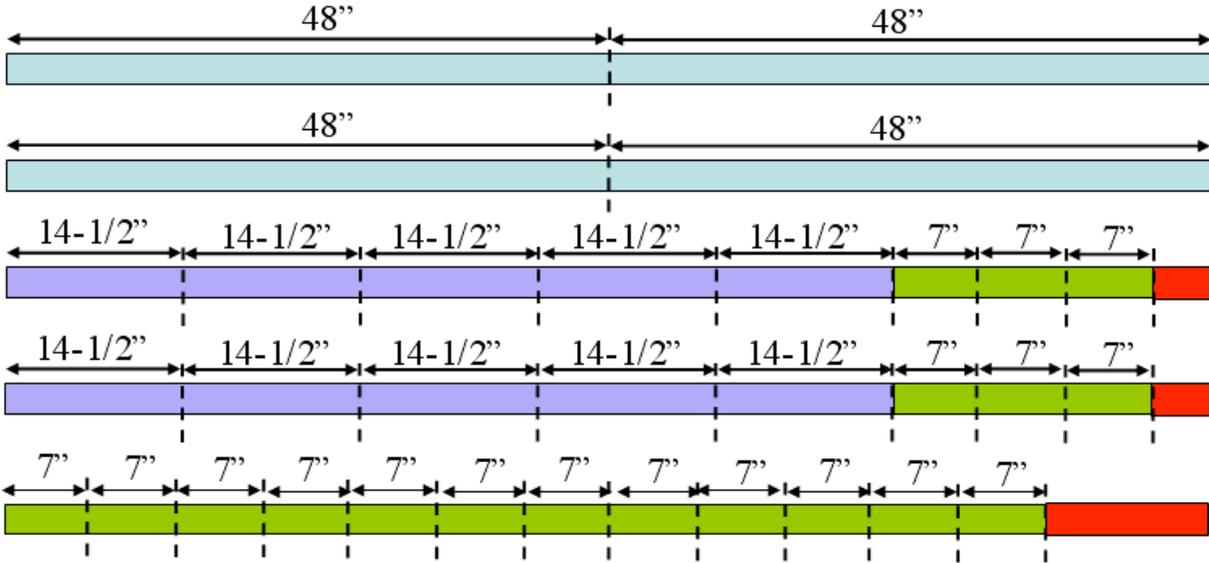
1"

Building Instructions:



Step 1 – Cutting the Frame Pieces

Cut the 1" x 2" strips of lumber to the plans below:



Quantity x Length: 4 x 48", 10 x 14-1/2", 18 x 7"

Step 2 – Cutting the Board Tops

Cut two sheets of plywood (minimum thickness of 3/8") to 16" wide by 48" long.

Step 3 – Building the Exterior Frames

Build the exterior frames for the boards using the layout seen on the *Lumber Dimensions* sheet. It is recommended to use 2 screws to secure each of the 14-1/2" ends on the frames so help with rigidity for adding the interior framing structure.

Step 4 – Building the Interior Frames

Build each of the interior frame sections including the "washer catchers" before adding them to the exterior frame. Add each section to the exterior frame at the locations specified by the *Lumber Dimensions* sheet using at least 2 screws on each end. Be sure to make sure the frames are square by taking the diagonal measurements from corner to corner to ensure the board tops with fit appropriately.

Step 5 – Cutting the Holes

Mark and cut a 4" diameter circle at each of the 3 points shown on the board tops on the *Lumber Dimensions* sheet. This can be accomplished by a jig saw, but if you want perfect results a 4" holesaw will do the trick every time.

Step 6 – Finishing the Construction

Attach the board tops to the frames using at least 5 screws along the long sides and 3 along the short sides. It is important to also add screws along the interior frames and washer catchers to help minimize bounce as well as increase support. Make sure that the screw heads are either flush or driven into the top surface of the board a little bit.

Step 7 – Adding Storage for Washers and Score Stick Part 1

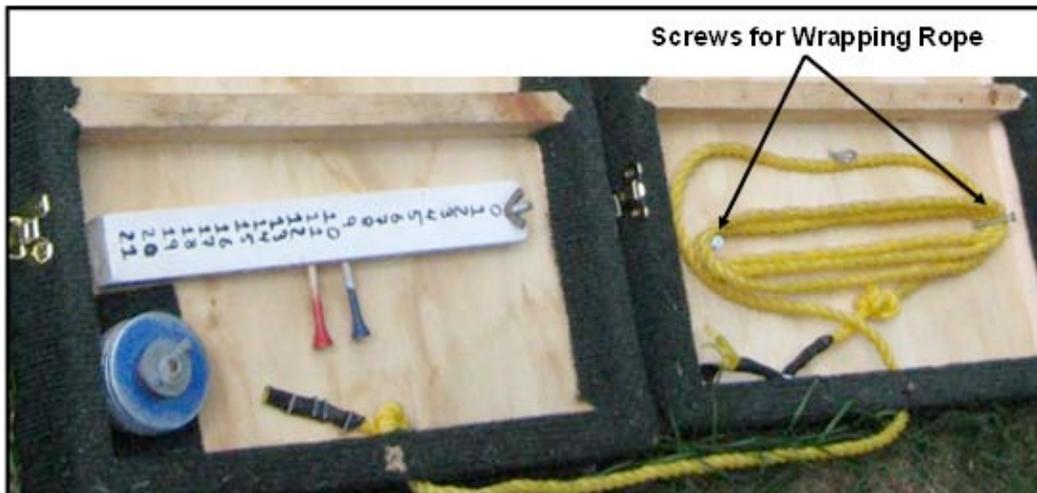
Choose one board to use as a storage compartment for the washers and a score stick. Drill two ¼” holes at the locations specified by the *Lumber Dimensions* sheet. Then counter sink the holes with a 5/8” drill bit, but only go deep enough so that the hex or carriage bolt head is flush with the board surface, but not too far through. Be sure to take time while doing this. It doesn’t have to be perfect, but the closer the better.

Step 8 – Adding Storage for Washers and Score Stick Part 2

Cut a 1” length off of a 1” diameter dowel to store the washers on. Spare broom sticks or anything similar to a dowel will do the trick. Drill a ¼” hole down the center of the dowel, then counter sink one end of the hole with a 5/8” bit to fit a hex nut. Place a ¼” bolt through the board top then place the dowel over this bolt and secure tightly with the nut as shown on the *Storage* sheet. Fit a ¼” bolt through the other hole in the board top and secure to the other side with a hex nut to make your score stick holder. Use wood filler to fill in around the hex heads on the top sides of the board.

Step 9 – Prep Boards for Distancing Rope

Sand down all surfaces. Drill a hole in the center of the frame on the “storage” end of each board to pass the board spacing rope through. The board without the washers and score stick storage will provide an area to store the rope. Make sure the hole is big enough to pass the nylon rope through with room to spare. Adding two screws to the storage area for the rope provides a way to wrap the rope.



Storage for Washers, Score Stick and Rope

Step 10 – Starting the Carpeting Process

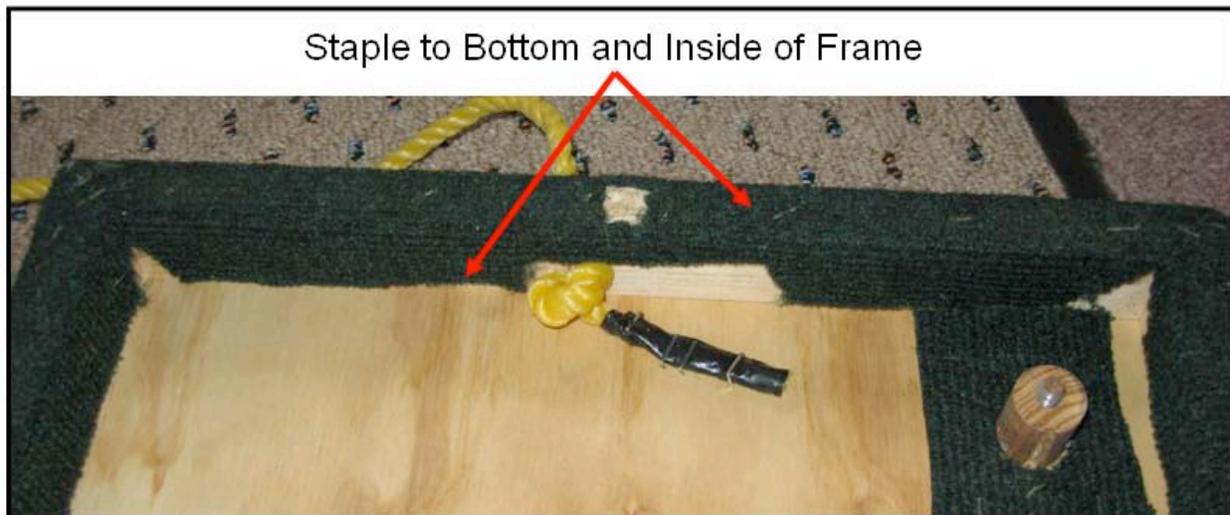
Cut two sheets of carpet to 6' by 2'. Plan your carpet so that if you bought a large roll you can keep the maximum amount of left over for more washer boards or whatever. On the backside of the carpet measure and use a permanent marker to trace the outline of the board to make sure you keep everything centered. Then staple one end of the carpet to the bottom and inside edge of the frame on the storage end of the board. *If you are not going to use adhesive, skip to Step 12.*

Step 11 – Optional – Apply Adhesive for the Carpet

Flip the board with one stapled end of carpet over and peel back the carpet so that the entire top of the board is visible. Take the adhesive and spread it evenly over the entire surface of the board top. A toothed trowel makes this an easy process. When done, fold the carpet back on top of the board, stand it up so that the free end can be pulled down tightly over to the bottom of the board, and place one or two staples to secure the carpet before laying it carpet side down on a smooth hard surface. Add weights (paint cans, dumbbells, etc.) to the bottom side of the board to ensure an even surface without bubbles, and allow to dry over night. Repeat this for the other board.

Step 12 – Completing the Carpeting

Staple the remaining edges completely around the bottom and inside edges of the frame. Pull tightly to ensure the carpet will be smooth along to the top surface of the board. A sore hand means the job was done correctly. It is important here to make sure you are satisfied that the staples will not get pulled free and that the carpet will not tear. Use a utility knife to cut away all the excess carpet from the inside edges. Although this is the bottom of the boards, it will look a lot better if time is taken to trim everything neatly. Take the time to figure out a method for cutting and tucking the corners in on each board for a neat look. Use hot glue or staples to close up the ends where the carpet may be tucked under itself.



Step 13 – Cut Holes in Carpet for Cups

Using a utility knife, cut a “6 slice pizza” pattern into the carpet over each of the board holes. Then flip the board over, and pull tightly on each “pizza slice” and staple it to the underside of the board. This may require some extra effort as stapling plywood can be tough. Once again take the time to ensure that the carpet is secured and will not pull free. More staples will only help it last longer.

Step 14 – Adding the Distancing Rope

Using a knife or a drill, cut a small hole through the carpet over the rope holes in each frame. On one end of the rope, tie a knot that is too big to pass through the holes with about 6”-8” of extra rope to one side. Pass the long end through the inside of frame on the board that will be used to store the washers and score stick. Use staples or nails to hold the extra rope to the inside of the frame. Using a measuring tape mark the 10’ point from the knot that has already been tied. Pass the other end of the rope through the outside of the frame on the other board. Now tie a knot too big to pass through the hole on this end. Cut the extra rope past this knot such that there is about 6”-8” left, and secure it as you did on the other side.

Step 15 – Adding Latches for Transport

Place the boards so that one is on top of the other so they are in the “all packed up” configuration. Add the latches and make sure they will pull the boards tight together since they will pop open if they are too loose.



Step 16 – Add Handles

Add a handle to one of or both of the boards for easy carrying during transport and setup. If using two handles, stagger them on the boards so they don’t block one another when closed up for transport.

