ROYAL® Trim & Mouldings

Build™

DO IT YOURSELF

Cornhole Boards

Skill Level	Estimated Cost	Time	Download PDF
	$145	1 Day	

Cornhole Boards

PVC Cornhole Boards, built to last. A few features are the collapsible legs, integrated cup holder and hanging system to mount on the wall.

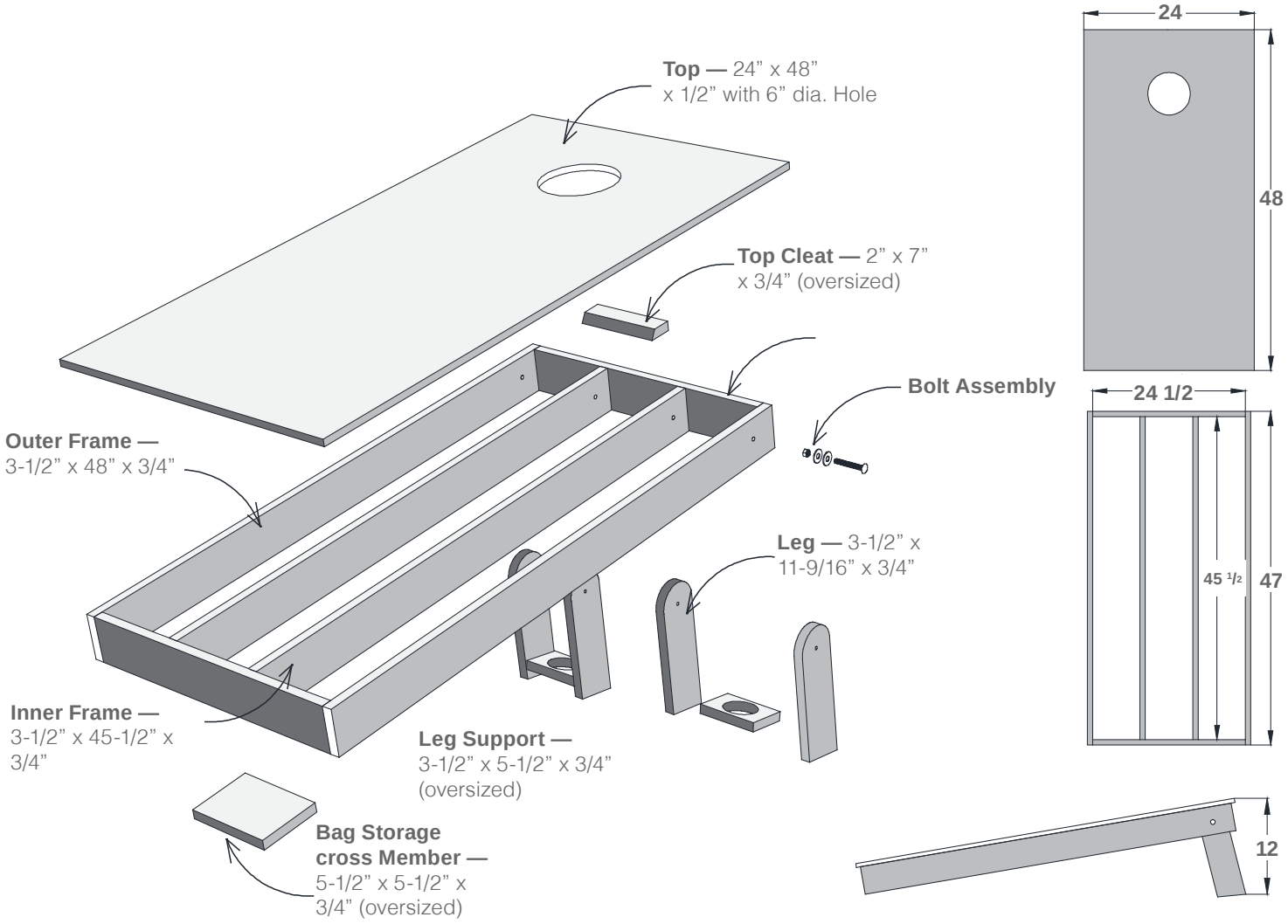
Simple Backyard Rules

- Boards are placed 27ft from front edge to front edge.
- Games are played to 21 points.
- Woody: Refers to any cornhole bag that has been pitched and remains on the cornhole board playing surface at the conclusion of the frame. Each woody is 1pt.
- Cornhole – Refers to any cornhole bag that has been pitched and passes through the cornhole board hole at anytime within the frame. Each cornhole is 3pts.
- A bag that comes to rest touching the ground AND the board does not count as a point.
- Cancellation Scoring: The approved method of scoring for the sport of cornhole is “cancellation” scoring. In cancellation scoring, the points of one player cancel out the points of their opponent. Using this method, only one player/team can score in each frame.
- Both players play one board at a time, and stay in their designated lane for the whole game (right or left).
- Players start the game at board 1 and alternate pitching bags until each player has pitched all (4) of his/her bags.
- Players then walk to the end of their lane to the other board, take score, and resume pitching back to the other cornhole board.
- Players must deliver the bag with an under-hand release.
- Feet must stay behind the line of the front of the board at the time of releasing the bag.
- The player/team who scored in the preceding frame pitches first in the next frame. If neither player/team scores, the player/team who pitched first in the preceding frame shall retain first pitch in the next frame.
- If bags become piled inside the cornhole board hole and may interfere or obstruct with the next pitch or if there is question whether a cornhole bag would have naturally fallen through the hole, a player may request to “rake” the cornhole bags

Drawing - Layout

Tools

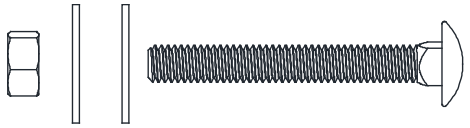
- Hearing Protection
- Safety Glasses
- Drill Bits
- Power Miter Saw
- Drill/Driver
- Jig Saw
- Table Saw or Circular Saw
- Tape Measure

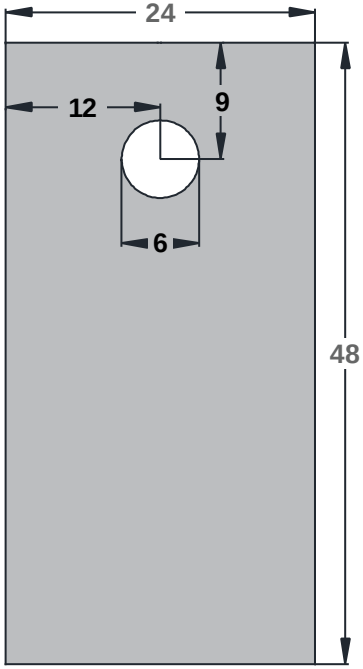


Drawing - Materials

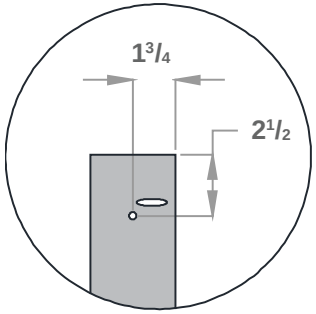
- 1/2”x2’x4’ HandiPanel
- 2ea 1’x4’x8’ (3/4” Thickness) Royal Trim Board
- 1ea 1’x8’x8’ (3/4” Thickness) Royal Trim Board
- 8ea – 5/16” x 21/2” Galvanized Carriage Bolts
- 8ea – 5/16” Galvanized Nuts
- 16ea – 1” Galvanized Washers
- PVC Glue
- 24ea 1” weather resistant Pocket hole screws
- 12ea 2” weather resistant trimhead screws

4ea - Bolt Assembly

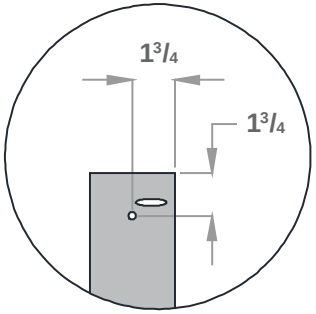




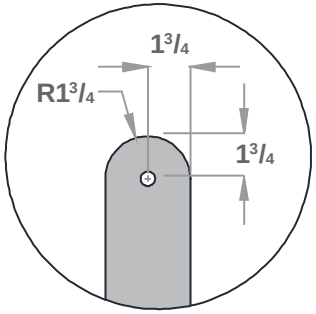
Drilling Details



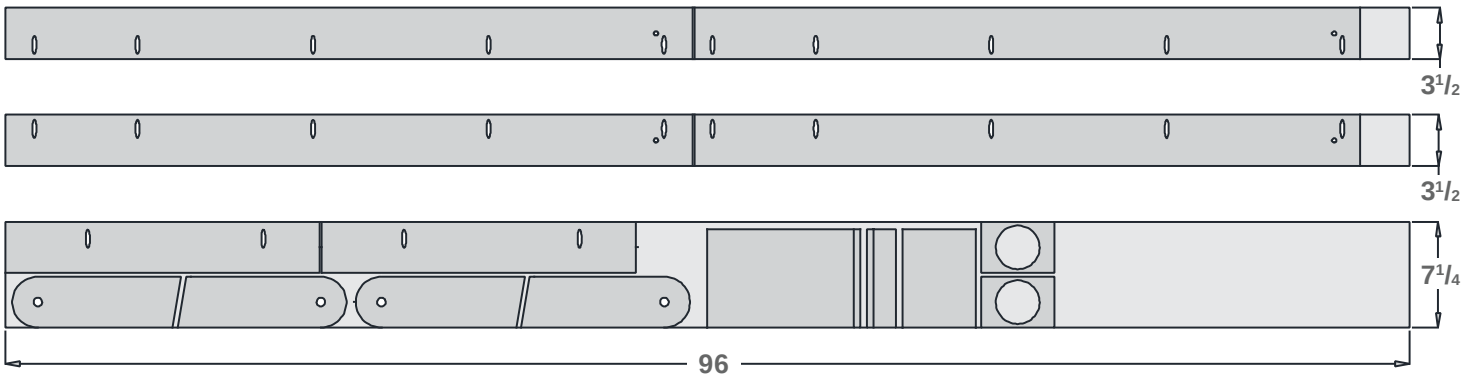
Outer Frame



Inner Frame



Leg



Step 1: Cut Board Parts

1.1 – Cut Board and Frame

Using the drawing as a guide, cut the board top and the framing members to size. A few helpful hints:

If using factory cut panels for the top, confirm the dimensions are correct and the board is square.

Stack the frame parts (4 of each length) and cut them on a chop saw with a single cut, this will ensure accuracy.

1.2 – Drill Leg Mount & Pocket Holes

Drill all pocket holes NOTE: pay attention to the board orientation. The boards should mirror each other.

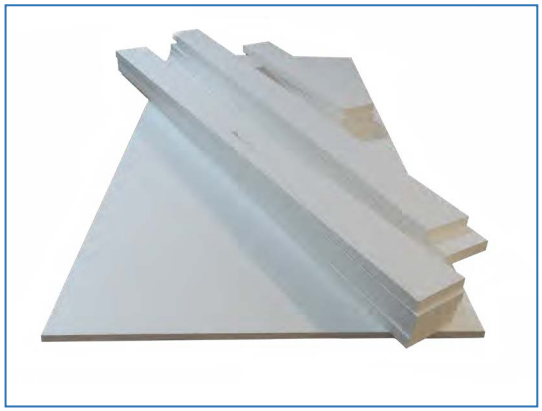
Per the drawing – mark and drill the holes for the legs. If you try to drill after assembly it will require a shorter than standard drill bit

1.3 – Assemble Frame

Using PVC Cement and wood screws to assemble the frame. Take note of the board orientation during construction – pocket hole pointing down and on the inside of the structure.

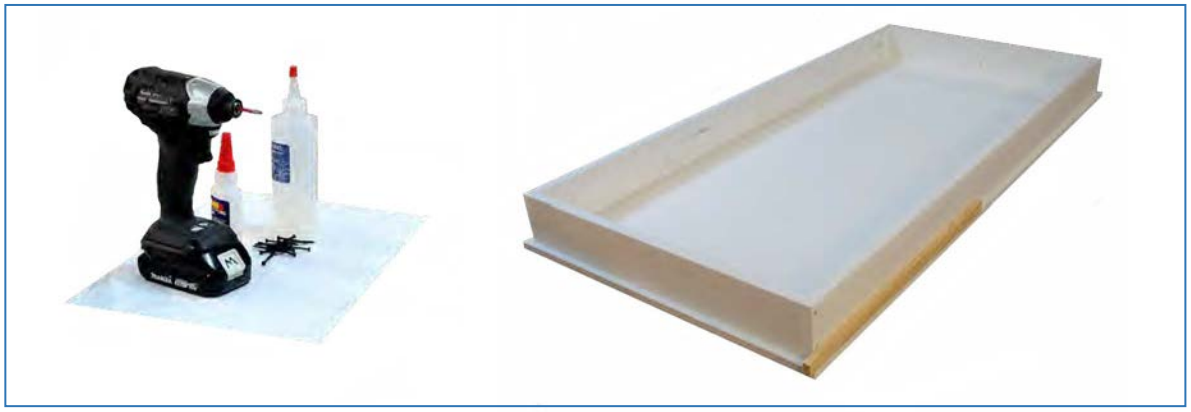
After assembled we cut a spacer block to gauge the distance between the board top edge and the frame. The spacer will be utilized.

Cutting Board and Frame



Drill Leg Mount & Pocket Holes

Assemble Frame and Pre-fit



Step 2: Assemble Body

2.1 – Glue Frame to Board Top

Using the frame as a guide, mark the location of the frame on the back of the top and apply PVC cement to the marked area.

2.2 – Attach Frame

Secure frame using 1” Kreg Pocket Hole All weather screws (course thread) .Utilize the gauge block for spacing and clamping the frame to the top.

2.3 – Install Interior Supports

Use the same technique (PVC cement and Screws) to fasten interior supports.

NOTE: cut a spacer block to hold the position of the framing during installation.

Glue Frame to Top

Attach Frame with Screws

Install the Interior Supports

Step 3: Assemble Body

3.1 – Hole Layout

On the face of the top, layout the center line of the circle. 9” from the top and 12” from the edge.

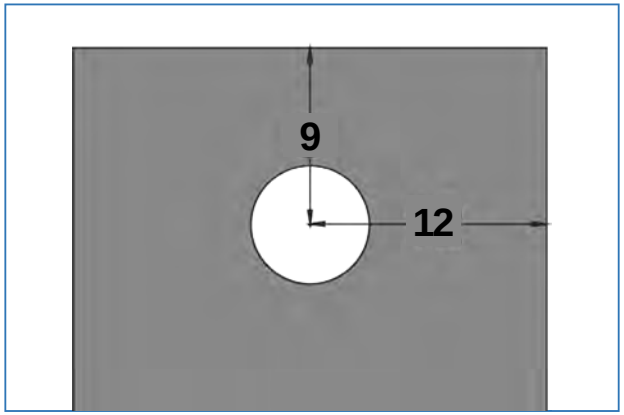
3.2 – Draw 6” Circle

Use a compass to mark the circle using the centerline as reference. Set the compass at 3” to create a 6” diameter circle.

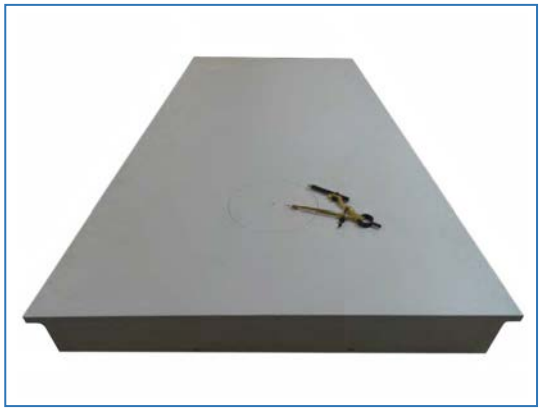
3.3 – Cutting

Cut the hole with a jigsaw. Drill a ½” diameter hole to start the jigsaw cut.

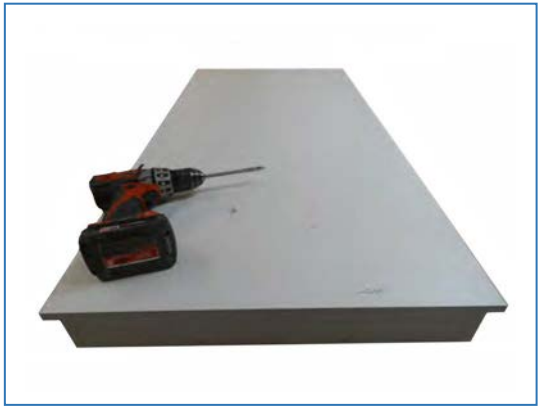
Hole Layout

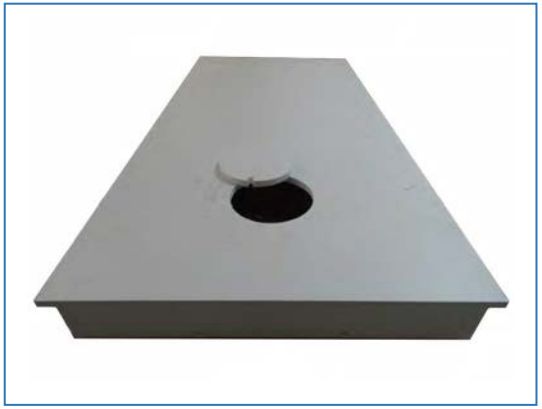


Draw 6” Circle



Cutting





Step 4: Attaching the Legs

4.1 – Insert Bolt and Washer

The leg assembly will require a washer between legs and frame to allow folding for storage.

4.2 – Attach Legs

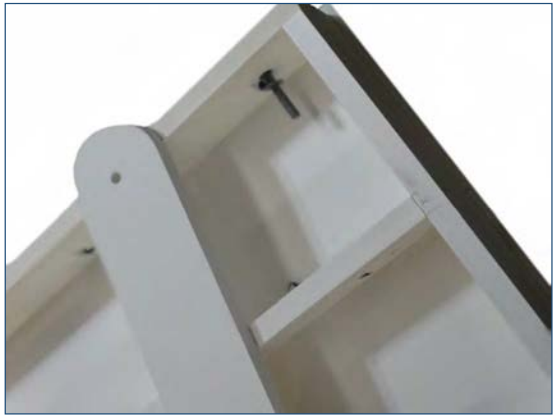
Slide the leg over the bolt and against the washer; place another washer and the nut on the bolt. Tighten snugly with a wrench.

4.3 – Repeat Process

Use the same routine for the remaining legs

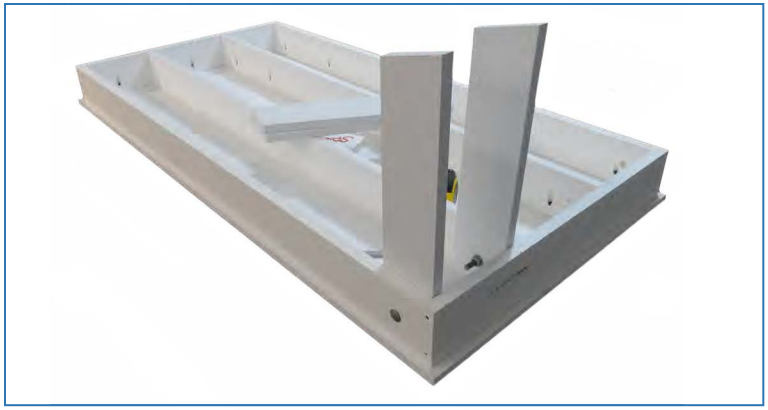
NOTE: the interior leg should mounted on the inside of the inner framing support.

Insert Bolt and Washer



Attach Legs

Repeat Process



Step 5: Leg Supports

5.1 – Measure Support Length

The distance between the legs will vary due to support location, washer assembly and tightness of bolts. Measure distance on all leg assemblies.

5.2 – Cut and Bore

Cut 3-1/2" X ¾" PVC boards for each leg assembly.

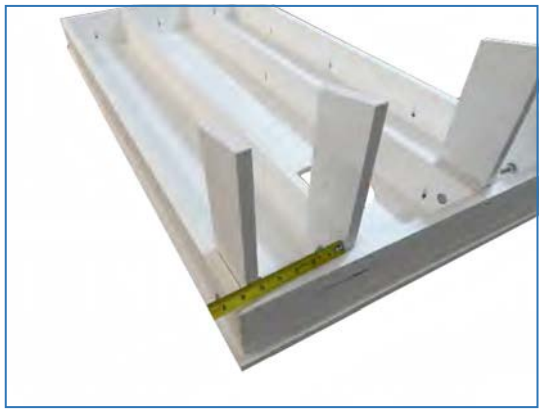
OPTION – use 3" hole saw to cut a circle in the center of the support. This will act as cup holder during play.

5.3 – Attach to the Leg Assembly

Attach support with PVC glue. Fasteners (nails or screws) are an option.

NOTE: use scrap material (3/4") as spacers under the support block to provide proper offset during the clamping process.

Measure



Cut and Bore

Attach to the Leg Assembly

Step 6: Wall Hanger / Bag Storage

6.1 – Measure Support Cleat Length

The distance between the frame supports could differ, so measure each board for proper fit. The portion of the cleat system to be mounted to the wall should be ripped ½" narrower that the support cleats. This will aid in the hanging of the boards.

6.2 – Cut and Bore

Cut the top cleat and mount it to the supports with PVC glue and screws

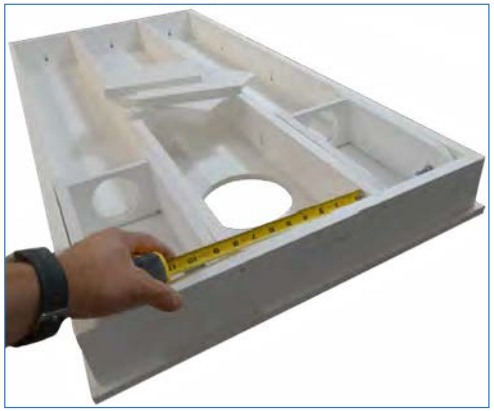
NOTE: this part is directional, so make sure the angled side is facing the back of the board.

6.3 – Attach to the Leg Assembly

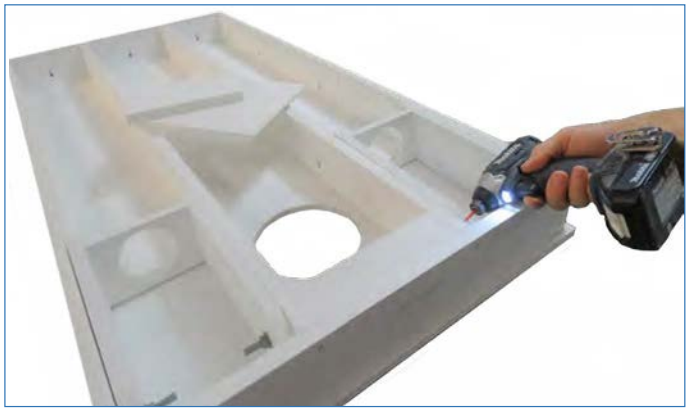
Using the same measurement as the top cleat, cut the cross member for the bag storage compartment. Mount it to the bottom portion of the interior support frame.

NOTE: Leaving a ½" gap at the bottom of the bag storage cross member with allow water and debris to escape.

Measure



Cut and Fasten



Attach Cross Member

Step 7: Hanging the Boards

7.1 – Mount the Cleat

Mount the Hanger Cleats to the wall using an appropriate securing system. Self-drilling wall anchors were used for this sheetrock application.

NOTE: the cleat should be fastened 2-1/2” below desired height of the board and allow 24-1/2” between cleats for clearance.

7.2 – Hang the Board

Place the bags in the storage compartment and lift the boards into place for storage and/or display.

7.3 – Finished Product

Measure

Hang the Boards

Finished Product

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ROYAL® Trim & Mouldings

Build™

DO IT YOURSELF

Toddler Standing Sandbox

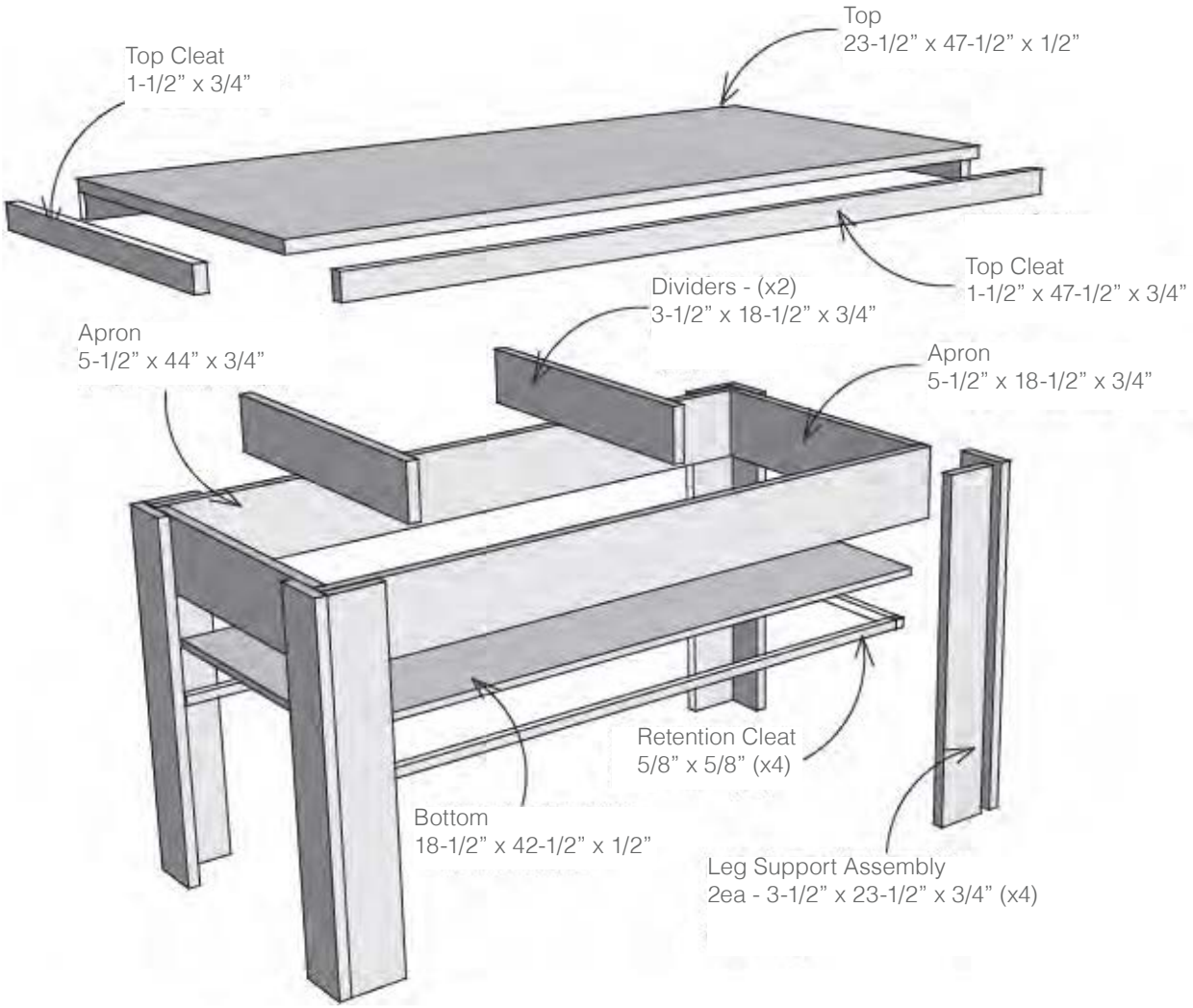
Skill Level	Estimated Cost	Time	Download PDF
	$165	4 Hours	

Toddler Standing Sandbox

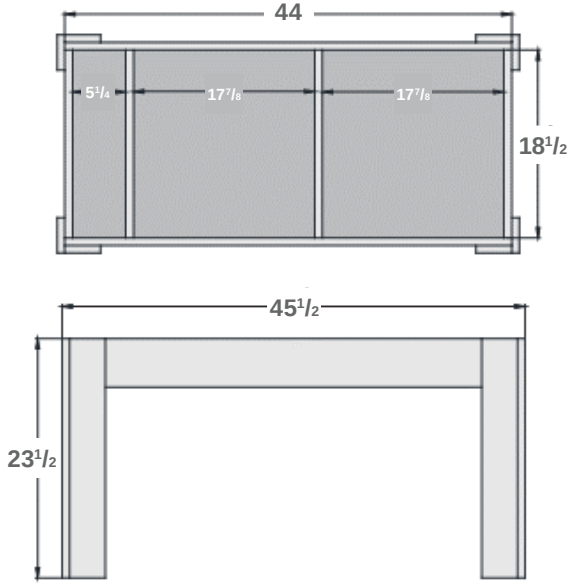
This is a simple weekend project with lasting benefits. This design keeps sand and stone where you want it, as well as provides a bit of storage for toys. The lid will keep everything dry when not in use.

As a secondary benefit, this project can function as an outdoor coffee table. Although it is a bit tall, at 24” it can be converted to an 18” height when the little ones outgrow the sandbox by simple removing a few inches from the legs.

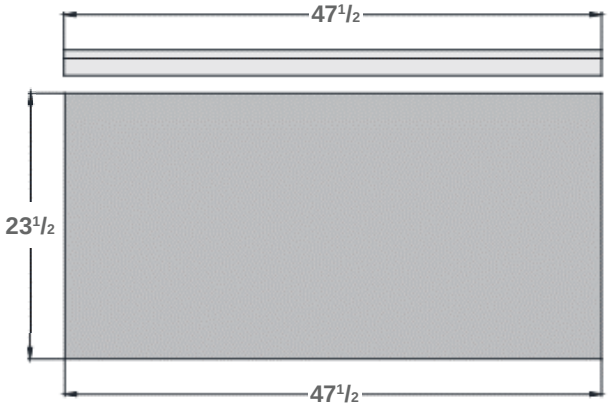
Drawing - Layout



Frame



Top



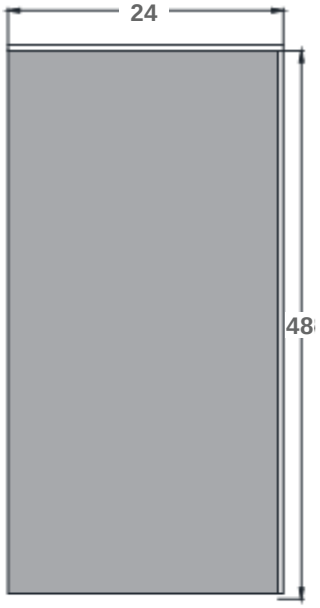
Layout Drawing - Materials

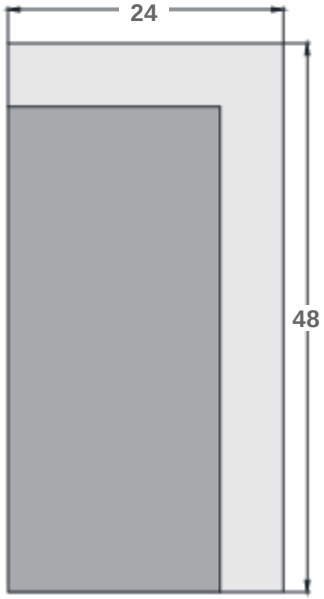
Tools

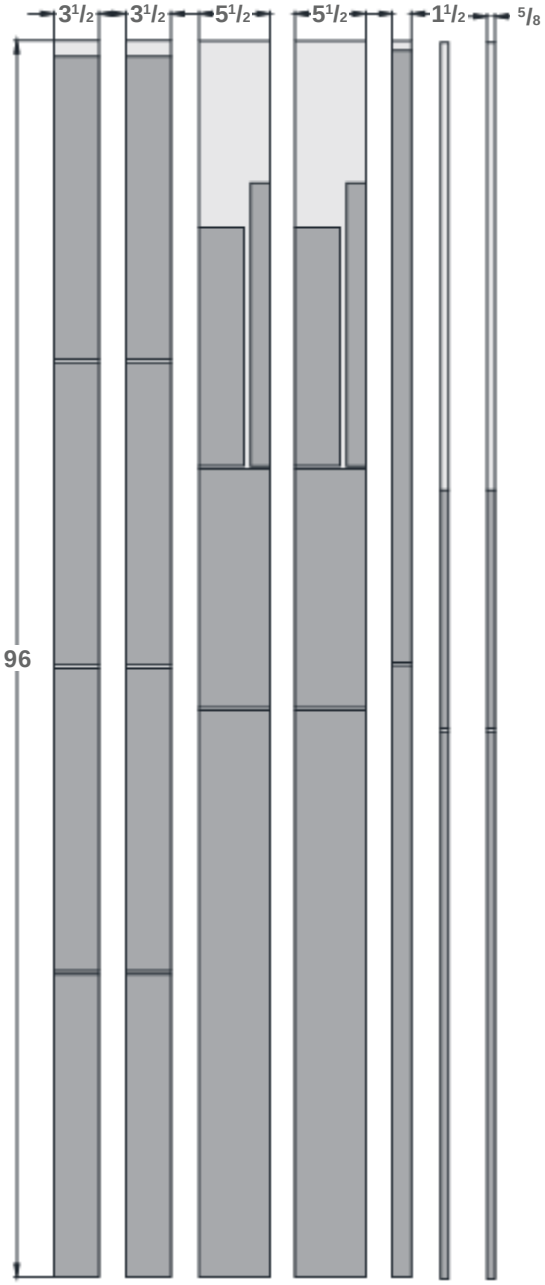
- Hearing Protection
- Safety Glasses
- Power Miter Saw
- Drill / Driver
- Table Saw or Circular Saw
- Tape Measure

Materials

- 2ea - 2’ x 4’x 1/2” HandiPanel
- 2ea - 1 x 4 x 8’ (3/4”) Royal Trim Board
- 2ea - 1 x 6 x 8’ (3/4”) Royal Trim Board
- 1ea - 1 x 2 x 8’ (3/4”) Royal Trim Board
- 2ea - 5/8” x 5/8” x 8’ Head Stop Trim
- #8 x 1-1/4” exterior Trim Head Screws
- PVC Glue







Step 1: Cut Parts

1.1 – Layout

Using the drawing provided, layout the parts. Remember to allow for the saw kerf (about 1/8”).

1.2 – Crosscut

Crosscut the frame parts to the appropriate lengths. We used a power miter saw, but a handsaw will work as well.

1.3 – Complete Frame Parts

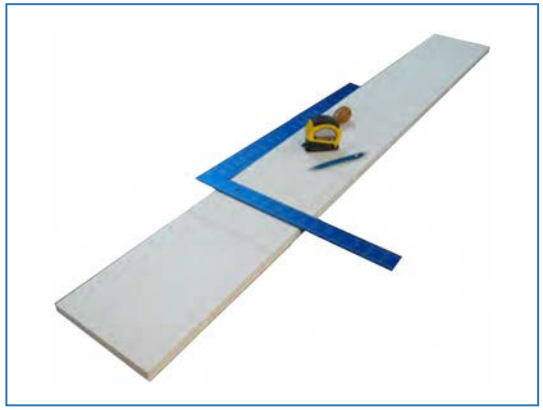
Continue the process to complete the parts for the frame.

1.4 –Rip

Rip the Top and Bottom portions of the build from the ½” panels.

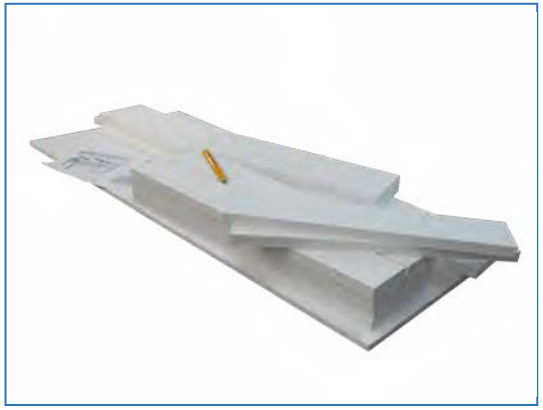
NOTE: ensure boards are square prior to making cuts, as factory cuts may not be perfectly 90°

Layout Frame Parts



Crosscut

Complete Frame Parts



Rip Top and Bottom

Step 2: Assembly

1.1 – Assemble Legs

PVC Glue the 3-1/2” x 23” boards and clamp as shown in the photo

1.2 – Construct Main Frame

Using trim head screws and PVC Cement, connect the 5-1/2” x 44 & 18-1/2” boards.

1.3 – Install 5/8” Cleat

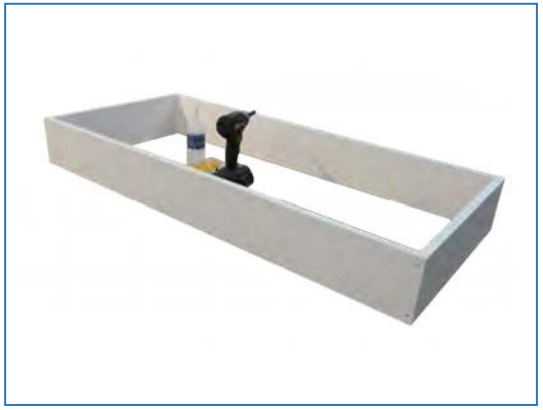
Install the 5/8” x 5/8” retention band around the bottom portion of the frame with trim head screws and PVC glue. This will be used to hold the bottom panel in place.

1.4 – Attach Legs

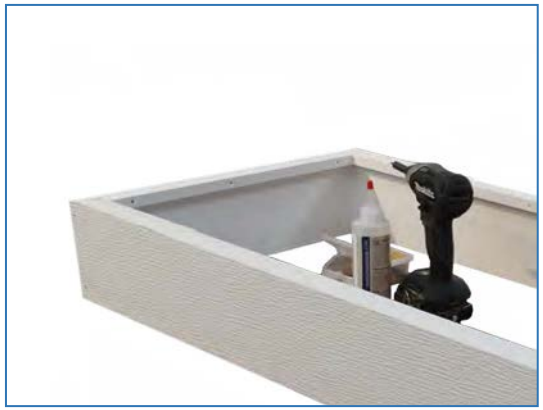
The legs are to be screwed and glued to the frame. Pay attention to the orientation of the legs, the widest side is to be placed on the longest side of the frame.

Assemble Legs

Construct Main Frame



Install 5/8” Cleat



Attach Legs

Step 3: Assembly

3.1 – Insert Bottom

Lay the frame assembly on its side and PVC Glue the bottom Panel to the 5/8” band.

3.2– Allow Glue to Cure

Stand frame upright and allow glue adequate cure time before moving to next step.

3.3 – Install dividers

Glue the dividers to the bottom and screw through sides of the frame to complete install.

With spacers clamped in position, use the 2-1/2” trim head screws to secure the door and act as hinges.

3.4 – Band the Top

Fasten the 1-1/2” x ¾” band around the top panel using screws and PVC glue.

Insert Bottom

Allow Glue to Cure

Install Dividers

Band the Top

Step 4: Assembly

4.1 – Sand all Edges

PVC can have sharp edge after cutting, so it is important to sand all cut edges with 220 grit sand paper.

Attach Top

Completed Build

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DO IT YOURSELF

Information Station

Skill Level	Estimated Cost	Time	Download PDF
	$45	4 Hours	

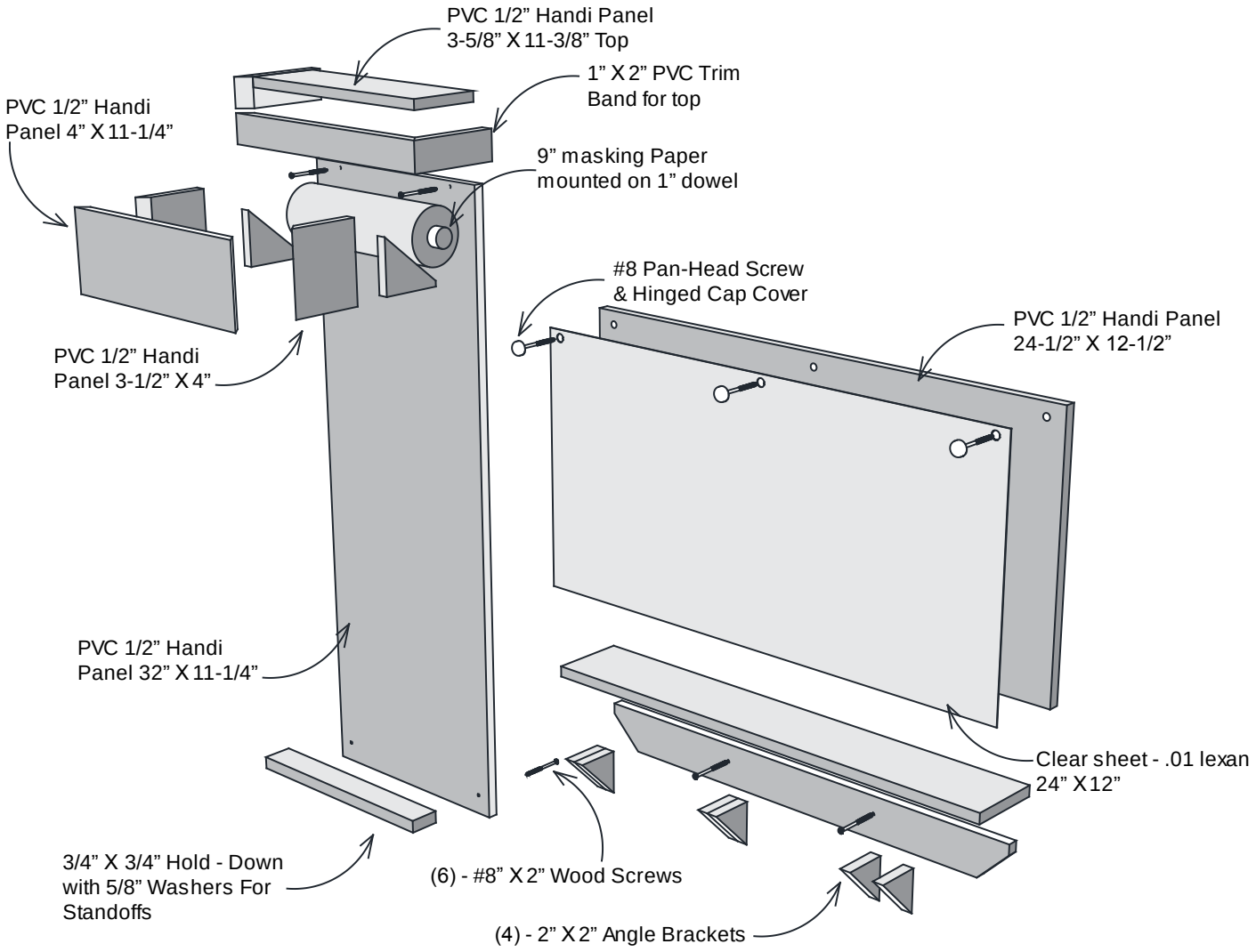
Information Station

This is a fun, quick project to organize your thoughts and keep you on track. Whether it's a Home Office or Kitchen communication board, you will find the flexibility of this tool useful. We are using PVC to create a paper roll holder, a white board and small shelf to hold supplies. The paper is inexpensive and versatile, and can be found in the paint section of your local hardware store (paint masking paper). The White Board uses the PVC as the pristine background for a PETG, Lexan or Plexiglas sheet (thickness and cost is personal preference). The attachment method of the clear sheet allows for documents to be mounted under the writing surface to provide a template, such as a blank calendar. Finally, a simple shelf will hold the various supplies used for your note taking.

Drawing - Layout

Tools

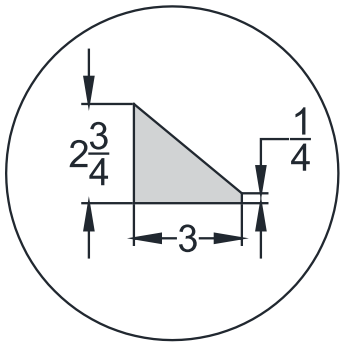
- Hearing Protection
- Safety Glasses
- Drill Bits
- Power Miter Saw
- Drill/Driver
- Jig Saw
- Table Saw or Circular Saw
- Tape Measure
- Sandpaper 150 Grit



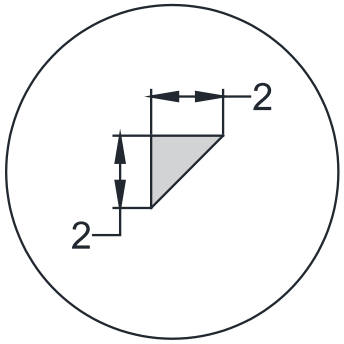
Drawing - Materials

Materials

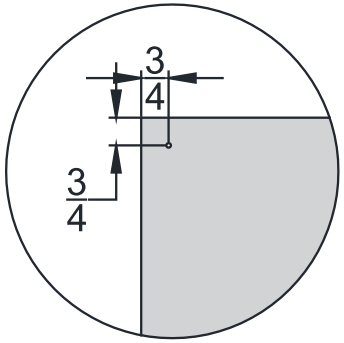
- 1ea – 2’ X 4’ X 1/2” Handi Panel
- 1ea – 1’ X 2’ X 3/4” Royal Trim Board
- 1ea – 9” X 180’ Masking Paper Roll
- 12” X 1” Wood Dowel
- 2ea – 5/8” Washers
- PVC Glue
- 24ea – 1” Weather-Resistant Pocket Hole Screws
- 6ea – #8 - 2” Wood Screws
- 12” X 24” Lexan Sheet (Cost varies with thickness)



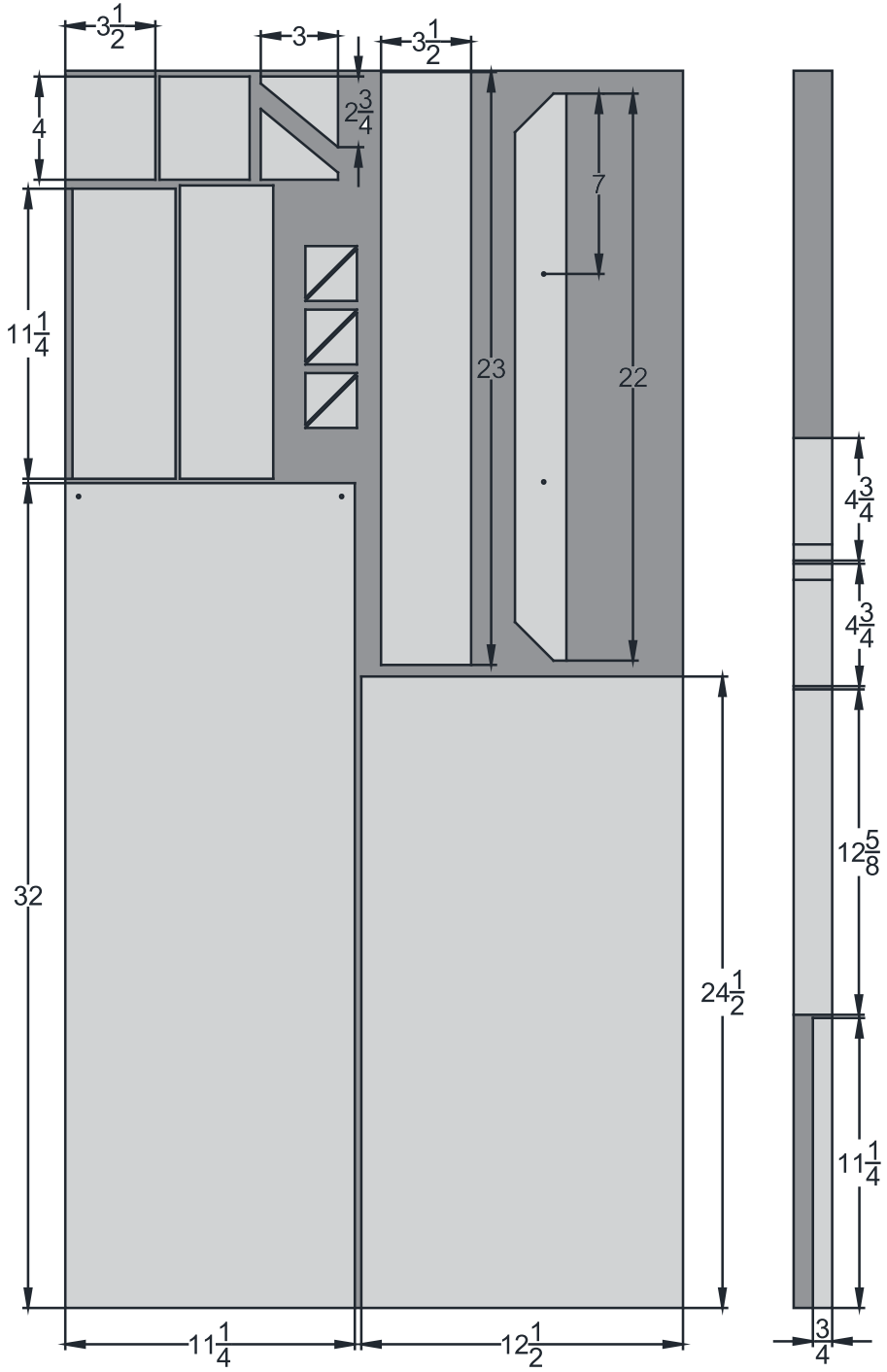
Paper Holder Brackets



Shelf Brackets



Paper Holder Drilling Detail



Step 1: Cut Board Parts

1.1 – Lay Out Panel

Using the drawing as a guide, layout the Panel as directed. A helpful hint:

If using factory cut panels, for the top, confirm the dimensions are correct and the board is square.

1.2 – Cut and Drill Parts

When cutting miters, pay attention to the embossed side of the product. The embossed side should face the interior or back of the project.

1.3 – Assemble Frame

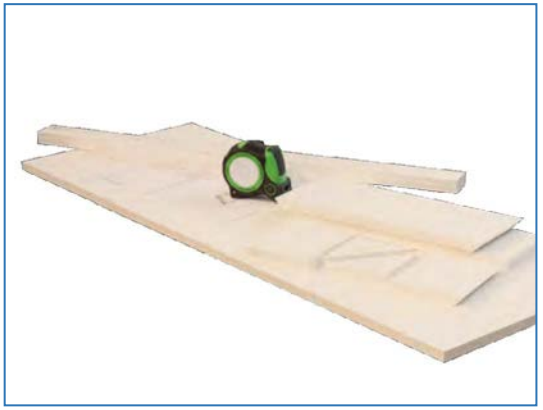
Using PVC Cement and CA glue, pre-assemble the paper holder.

1.4 – Assemble Frame

PVC Cement and wood screws are used to attach the paper holder. Predrill and countersink the wood screw to eliminate interference with the wall attachment.

Layout Panel

Cut and Drill Parts



Assemble Frame

Attach Frame

Step 2: Cut Board Parts

2.1 – Lay Out Panel

Install the angled support brackets for the paper roll.

2.2 – Cut Dowel

The dowel should be cut to 10”.

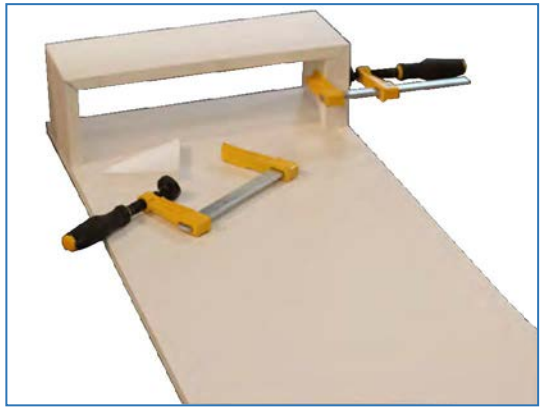
2.3 – Drill Base

Predrill holes at ¾” from the side and 1-1/2” from the bottom of the panel. Countersink the backside to ensure panel lies flat on the wall after hanging.

2.4 – Attach Paper Cutter

Using the washers as standoffs (to allow paper to pass through) fasten ¾” X ¾” PVC with wood screws.

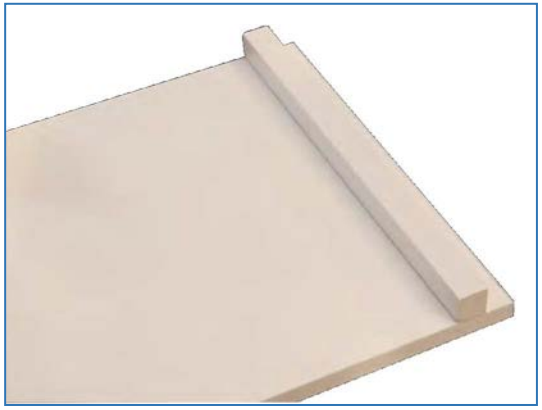
Attach Angle Brackets



Cut Dowel

Drill Fastener Holes

Attach Paper Cutter



Step 3: Topper and Whiteboard

3.1 – Topper Parts

Per the drawing, cut the parts from Handi Panel and 1' X 2' to make the topper. When cutting, make sure the emboss portion will be hidden after assembly.

3.2 – Assemble Topper

Gluing the pieces will eliminate the need to cover any fastener holes.

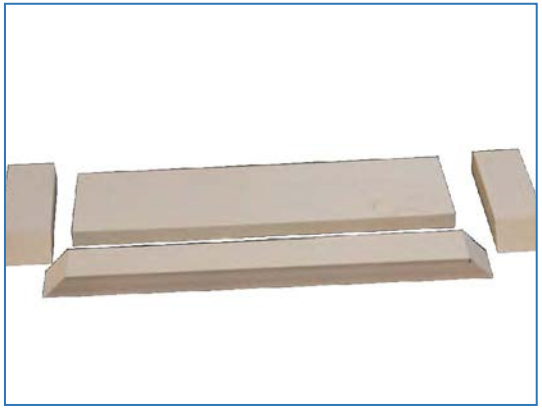
3.3 – Size the Whiteboard Panel

Cut a 12-1/2" X 24-1/2" section from the remaining portion of the Handi Panel. Drill ¼" holes ¾" from sides and top and place another hole ¾" from the top in the middle of the panel.

3.4 – Mark and Drill Plastic

The easiest way to mark the clear panel hole location is to align to desired location on the panel and trace hole locations. Depending on the type and thickness of Lexan or Plexiglas purchased you can ether drill or punch (paper hole punch) the fastening holes. NOTE: Make the hole in the clear panel slightly larger than the fastener (1/4" minimum).

Topper Parts



Assemble

Size the Panel

Mark and Drill Plastic

Step 4: Shelf

4.1 – Shelf Parts

Per the drawing, cut the parts from Handi Panel. When cutting, make sure the emboss portion will be hidden after assembly.

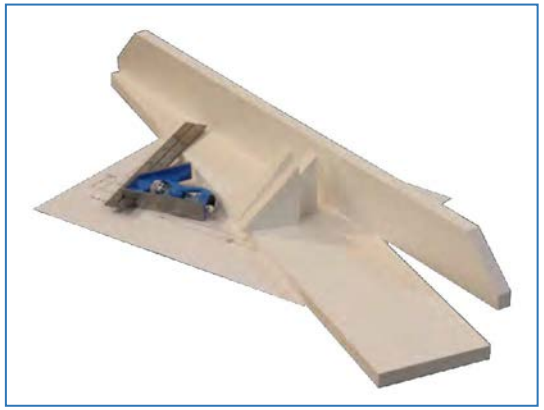
4.2 – Assemble Shelf

PVC Glue the back brace to the shelf, then add the angled supports.

4.3 – Hang Grouping

Attach the paper holder to the wall using wood screws and wall anchors (if required). Confirm the product is level prior to attachment. Next, level and position white board location. Mark the hole location on the wall and proceed with wall anchor install. You will sandwich the clear panel between the screw caps and panel during attachment. Do not over tighten. Finally, secure the shelf with wood screw and anchors utilizing the predrilled attachment holes.

Shell Parts



Assemble

Hang Grouping

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