

# DOWNTOWN BRACKET CHALLENGE

The **'Downtown Bracket Challenge'** was developed at the University of Kentucky's College of Agriculture, Food and the Environment, the Department of Landscape Architecture and the Community and Economic Development Initiative of Kentucky [CEDIK] as a civic engagement tool. If you have any questions please contact Ryan Sandwick, Community Design Program Manager at: [Ryan.Sandwick@uky.edu](mailto:Ryan.Sandwick@uky.edu)

The **"Downtown Bracket Challenge"** allows people to vote on which project they would like to see involved in their neighborhood or community by donating pre-identified items. These items are placed by participants into the voting box that is associated with their preferred project, with all donated items going to a local non-profit after they are counted.

The voting boxes described here are based on our experiences building them in Winchester. Two of us built 4 of the voting boxes over a weekend for under \$500.

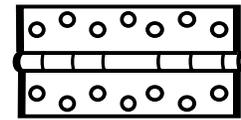
\* The items listed here are to build a single box. Please multiply the supplies if building more than one voting box.

\*\* These are the two primary types of power tools needed. Please follow all safety measures and precautions.

## MATERIALS NEEDED\*



**x1** .453" x 7.997' x 3.997' Top Choice Blondewood Plywood.  
The hardware store cut the panels into 2' x 8' panels for easier transport.



**x1** 1 1/16" x 12" Continuous Hinge with screws. We used a medium, piano hinge to allow the lid to lift up above the collection sections.



**1qt** Gray primer  
**2qt** Colored paint  
Painting supplies (rollers, trays, etc.)



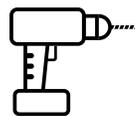
**x1 pack** 8 x 1-1/2" Wood screws  
**x1 pack** #4 x 1/2" Wood screws  
**x1 pack** SAE #6 Flat Washers



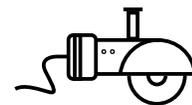
**x1** 18" x 24" Acrylic Clear Sheet

- Sandpaper
- 1/2" wide weather stripping

## TOOLS NEEDED\*\*



**x1** Handheld Power Drill  
It is important to have a variety of drill bit sizes to use.

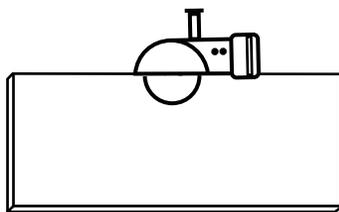


**x1** Handheld Circular Saw

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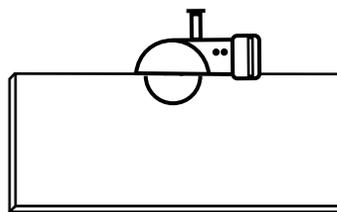
## HOW TO BUILD IT: Cutting the Wood Panels

1.)



x1 Back panel: 18" x 36"

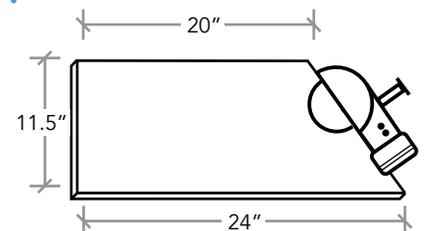
2.)



x1 Base panel: 12" x 18"  
x1 Lid: 15" x 14"

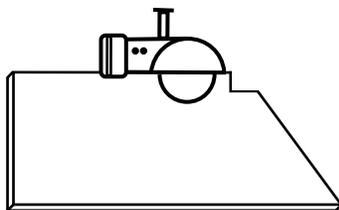
One long edge of the lid will need to be cut to be flush with the face of the back panel. See step 13.

3.)



x3 Side panels: 11.5" x 20" x 24"  
The side panels create the two enclosures for voting compartments in the voting boxes. The angle at the top of the panels allows the lid to have an angle to minimize water and the elements from entering.

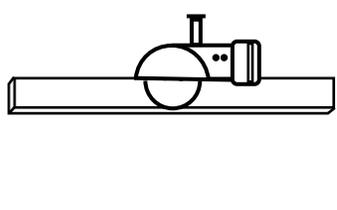
4.)



x1 Side panel notch: .5" x 5"

This panel allows for a cross brace of wood to be installed connecting the three side panels, as well as support for the top of the acrylic panel. The notch is placed on the middle side panel when assembling.

5.)



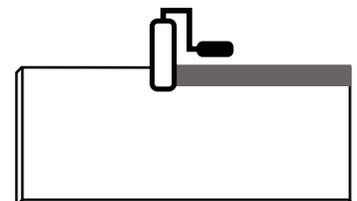
x1 Cross brace: 1.5" x 17"

The cross brace connects the top of the side panels and fits flush into the notch cut into the middle side panel in the previous step.

### NOTE:

Use sandpaper to smooth edges and panels faces prior to painting.

6.)



### Paint the Wood Panels

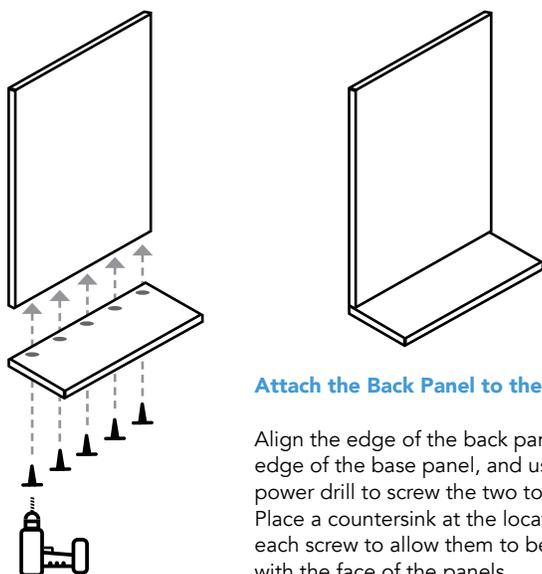
After cutting each of the wood panels, sand the edges and paint all sides of each panel. The panels may require more than one coat of paint.

Leave the panels overnight to dry before assembling them the next day.

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## HOW TO BUILD IT: Assembling the Wood Panels

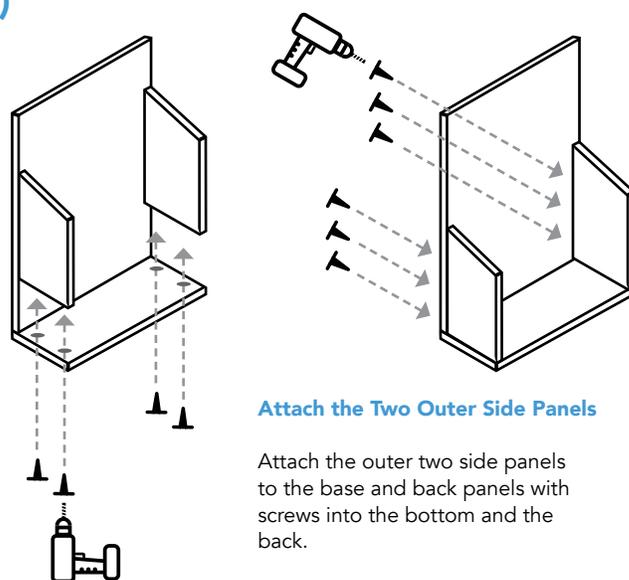
7.)



### Attach the Back Panel to the Base

Align the edge of the back panel to the edge of the base panel, and use the power drill to screw the two together. Place a countersink at the location of each screw to allow them to be flush with the face of the panels.

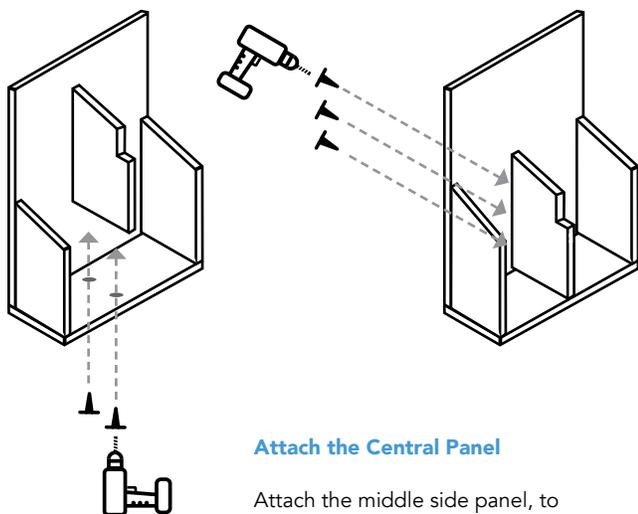
8.)



### Attach the Two Outer Side Panels

Attach the outer two side panels to the base and back panels with screws into the bottom and the back.

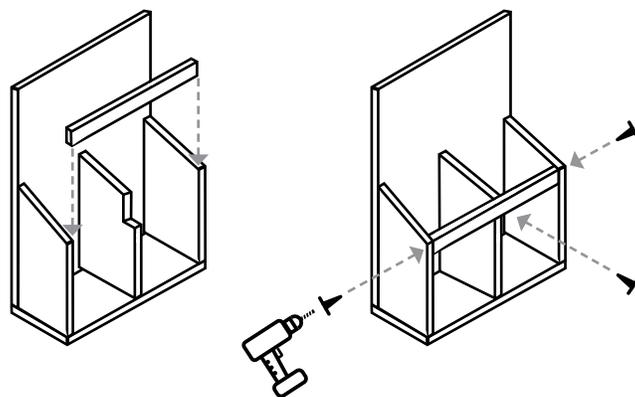
9.)



### Attach the Central Panel

Attach the middle side panel, to the base and back panels. Place the middle panel equally between the two outer side panels.

10.)



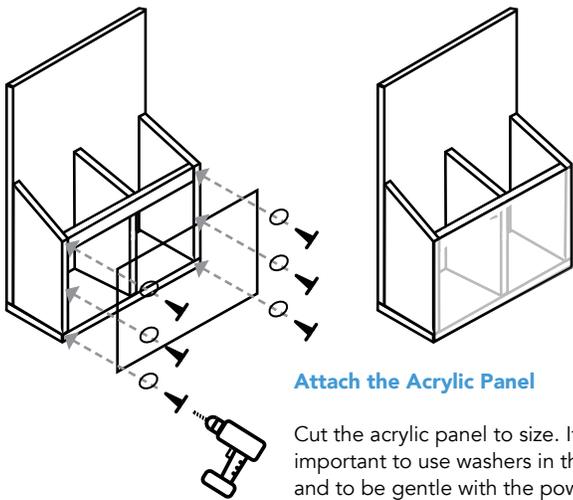
### Attach the Cross Bar

Place the cross bar into the notch in the middle panel, and attach both through the ends on the out panels and into the front of the cross bar into the middle panel.

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## HOW TO BUILD IT: Assembling the Lid and Acrylic Panels

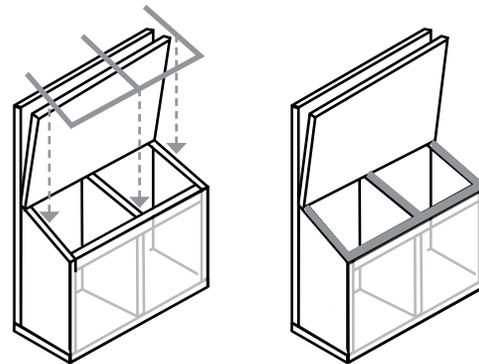
11.)



**Attach the Acrylic Panel**

Cut the acrylic panel to size. It is important to use washers in this step, and to be gentle with the power drill to prevent the acrylic from cracking or shattering.

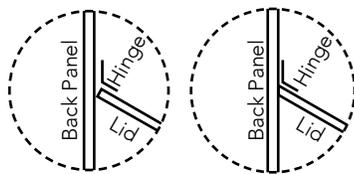
12.)



**Adding the Weatherstripping**

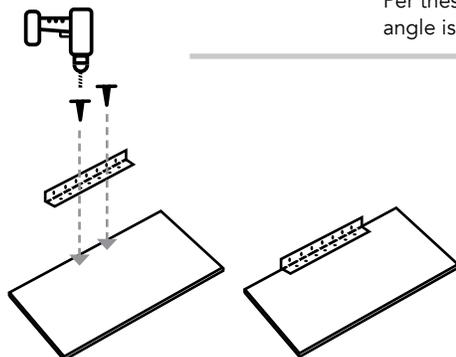
Adding weatherstripping to the tops of the side panels serves two main purposes. 1). to help keep the interior dry and 2). provide padding to the lid for when it is lowered.

13.)



**Edge of the Lid**

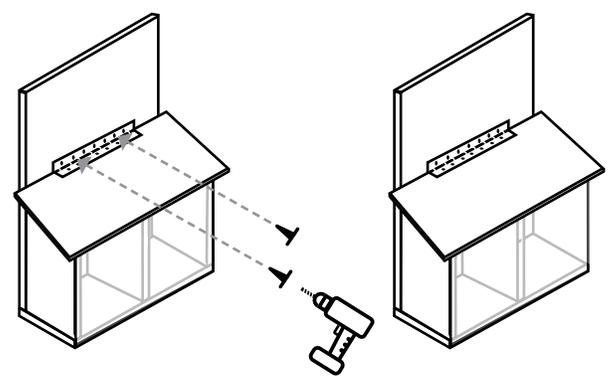
Prior to attaching the continuous hinge, lay the lid on top of the side panels to measure the angle of the lid edge that needs to be cut to be flush with the back panel. Per these dimensions the angle is appx. 20 degrees.



**Attach the Continuous Hinge to the Lid.**

Center the hinge on the edge of the lid and screw the hinger onto the lid using the screws included with the continuous hinge.

14.)



**Attach the Lid to the Back Panel**

Placing the lid on top of the side panels, and centered on the voting box, use the remaining screws from the continuous hinge to attach the lid to the back panel.