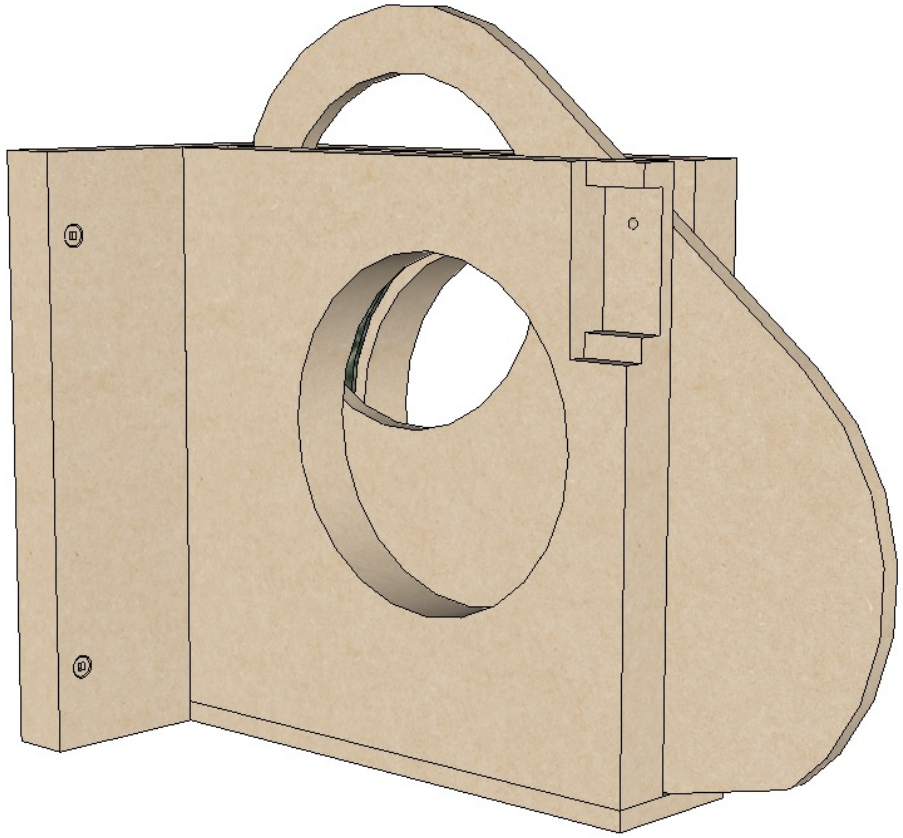
Blast Gates

Complete Build Plans



Scott Walsh

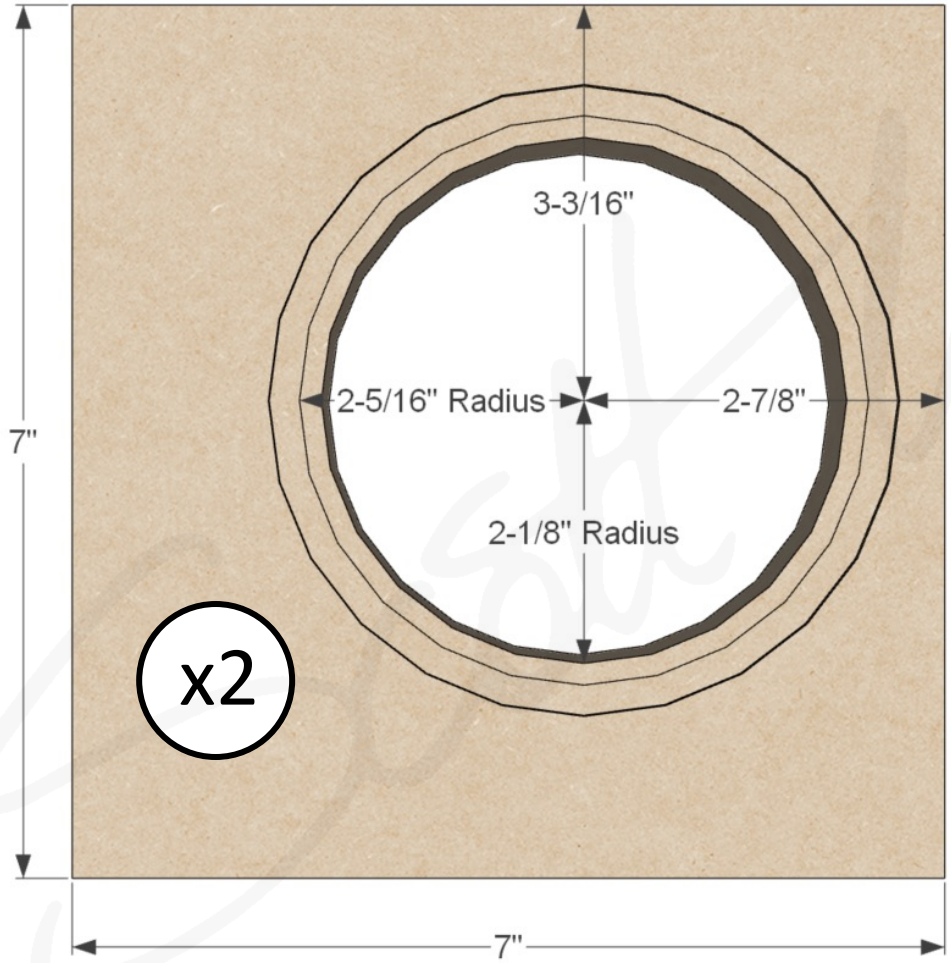
Supplies

Item

¾” Baltic Birch Plywood
¼” Baltic Birch
1-½” #8 Screws
1” #8 Screws
Stiffened Craft Felt

Dimensioning

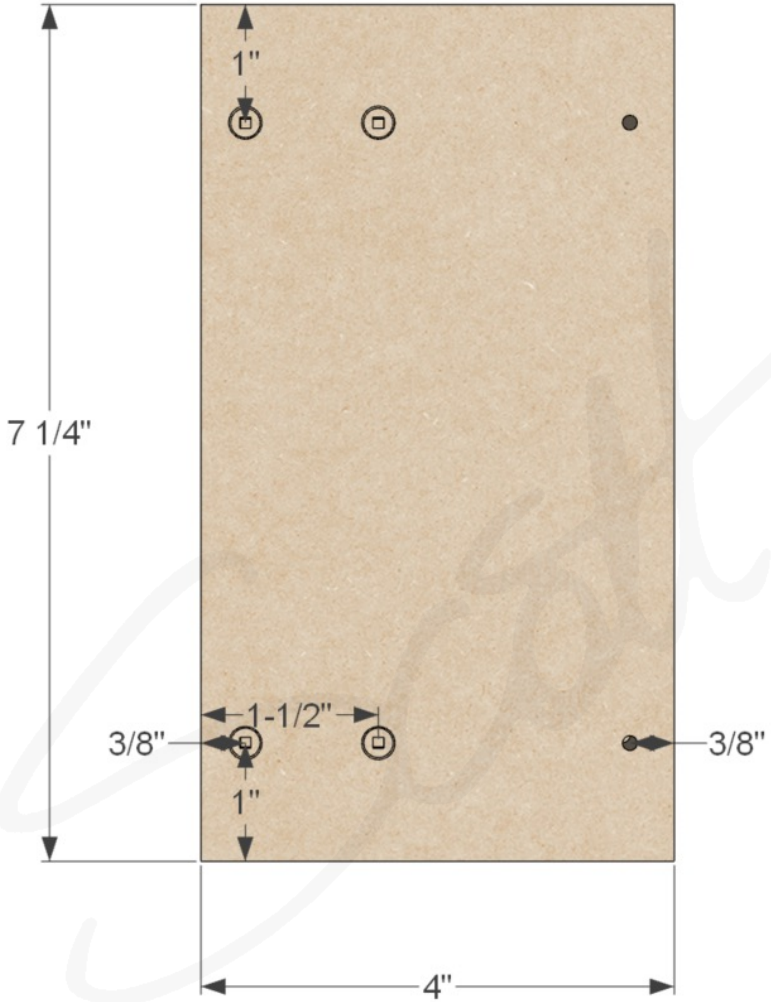
Sides



- ¾” Baltic Birch
- Use a ¼” router bit and a circle jig to cut a 1/16” deep, 2-5/16” inside radius recess for the felt gasket *before* cutting pipe circle.
- Make inside radius of pipe circle fit snugly to the dust collection pipe you’re using.

Dimensioning

Wall Bracket

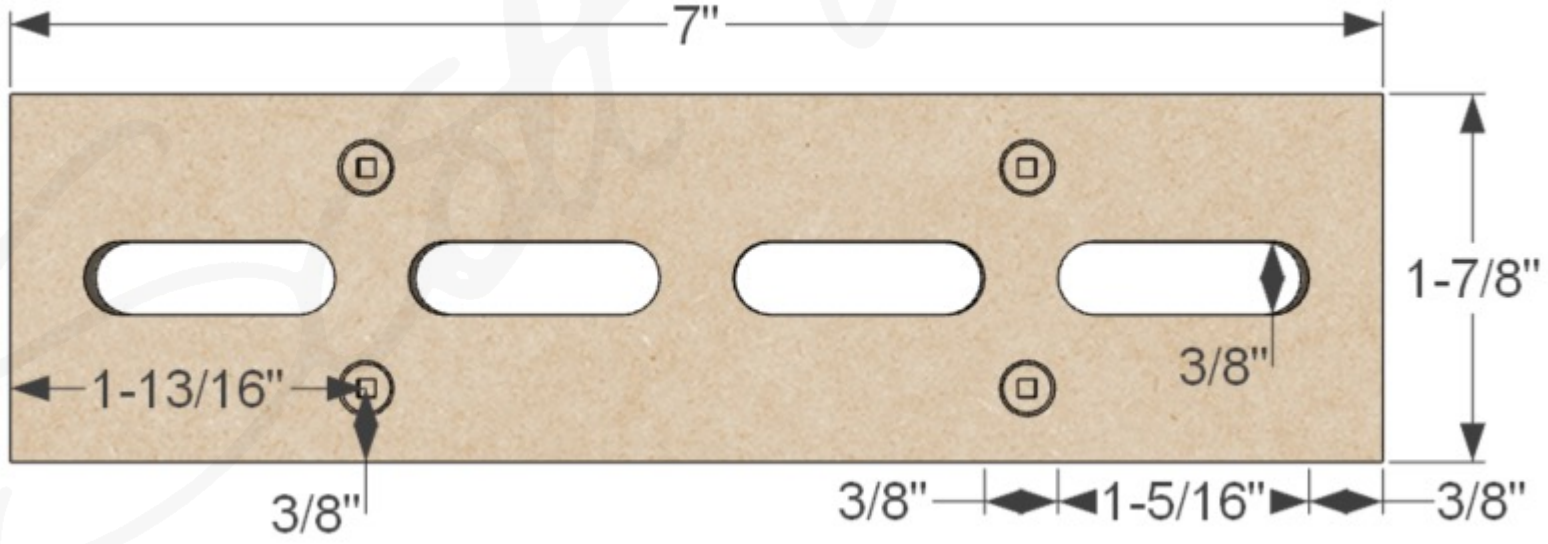


- ¾” Baltic Birch
- The two holes on the right side are countersunk from the opposite side and are used to mount the blast gate to a secure location

Dimensioning

Vent Bracket

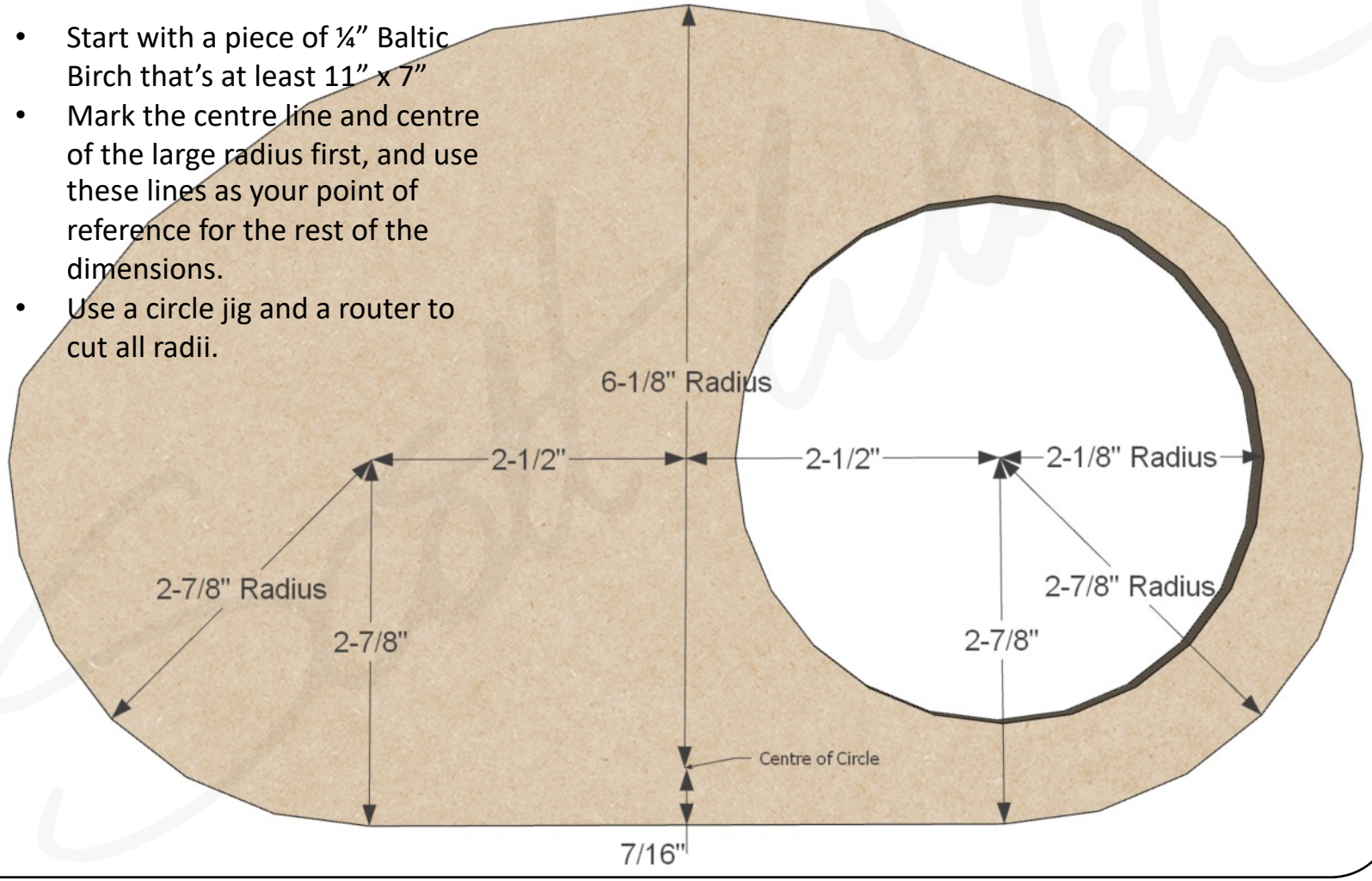
- ¼” Baltic Birch
- You can use a router table to plunge cut the slots for keeping the inside of the blast gate clean.



Dimensioning

Gate

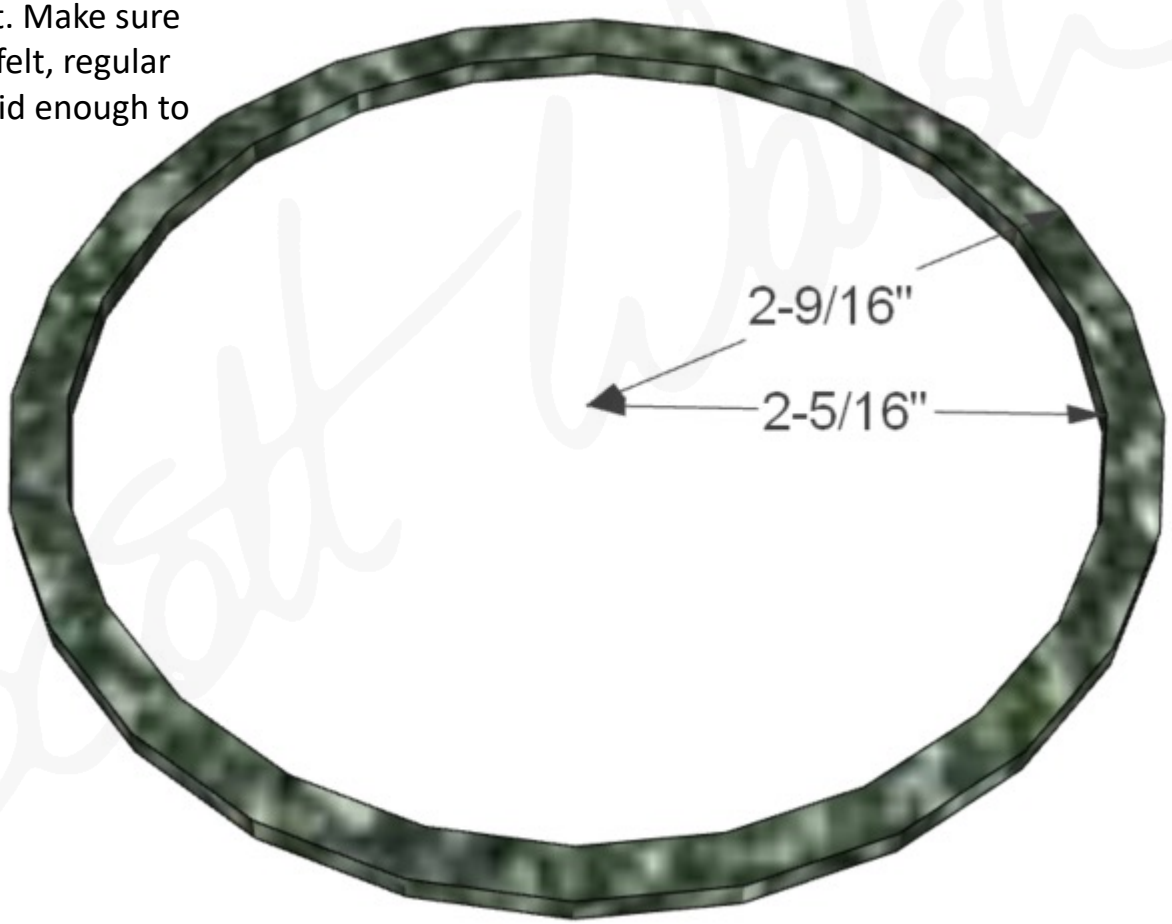
- Start with a piece of ¼” Baltic Birch that’s at least 11” x 7”
- Mark the centre line and centre of the large radius first, and use these lines as your point of reference for the rest of the dimensions.
- Use a circle jig and a router to cut all radii.



Dimensioning

Felt Gasket

- Stiffened craft felt. Make sure you get stiffened felt, regular felt will not be rigid enough to cut this narrow.

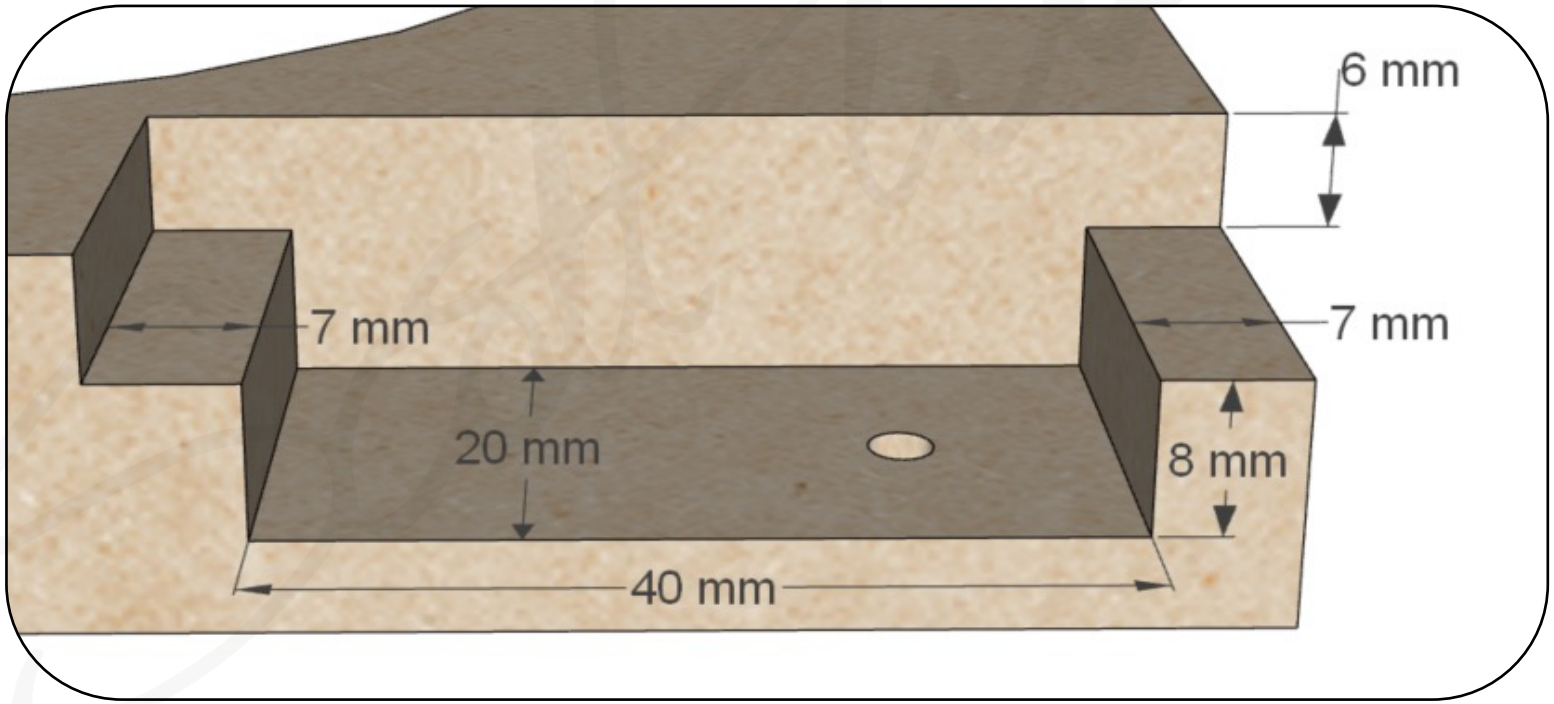


x2

Shaping

Servo Motor Mount

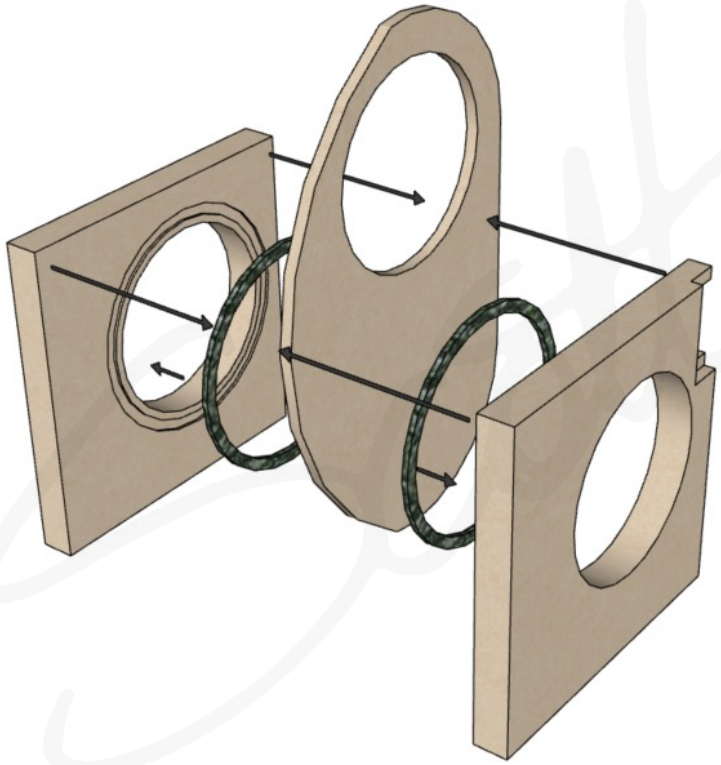
- If you are using a servo motor, like the Tower Pro MG996R, you will have to recess its mounting location as follows:
- This can be done using a ¼" straight bit on a router table, and cleaning up the rounded corners with a chisel.



Assembly

Gaskets

- Glue felt gaskets to each side with CA glue.
- If not using a servo motor, you can use a finish nail to mount the gate after assembly.



Brackets

- Screw each side to mounting bracket using 1-1/2” #8 screws.
- Screw each side to mounting bracket using 1” #8 screws.
- Ensure Gate is free to move with little force