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# Barcelona Table Project

— Libby Hillock —

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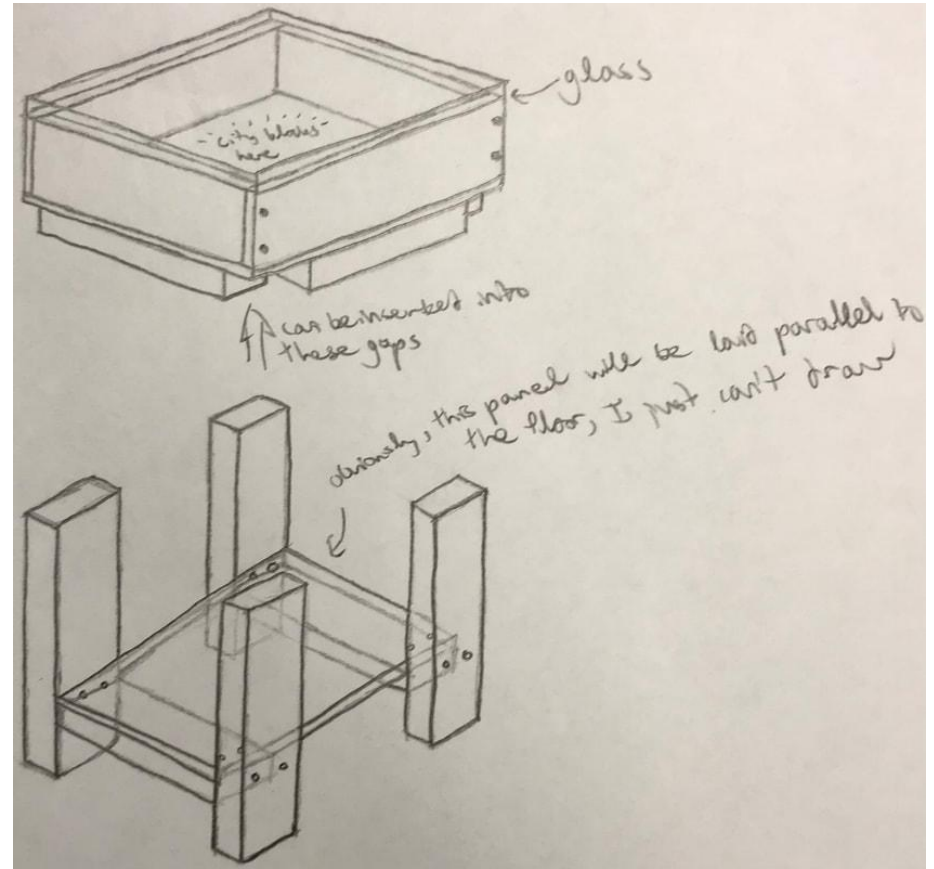
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# Project Description

This is a design for a table with an empty non pull-out cabinet with an acrylic top that has a 3D-printed model of the city of Barcelona within it. The table will have a dark wood stain and glossy finish, along with a platform directly below the cabinet to serve as a place for various ornaments.

# Preliminary Sketches

- Cabinet with hollow inside and glass top
  - Inside contains city model
  - Supports nailed to bottom to ensure stability of legs of table
- Legs have a platform below the cabinet for placement of various ornaments
  - Will have supports nailed to bottom for stability



# Bill of Materials

Link	Quantity	Product	Dimensions	Individual Price (\$)
<a href="#">Link</a>	1	Sanded Plywood	3/4" x 48" x 96"	75.65
<a href="#">Link</a>	2	Pressure-Treated Lumber	2" x 4" x 96"	6.98
<a href="#">Link</a>	1	Clear Acrylic	0.093" x 36" x 30"	34.44
TOTAL PRICE				124.05

# Hardware List

Link	Quantity	Product	Dimensions	Individual Price (\$)
<a href="#">Link</a>	1	Espresso Wood Stain	8 oz	5.87
<a href="#">Link</a>	1	Clear Gloss Lacquer Finish	11 oz	5.48
<a href="#">Link</a>	1	Pack of Nails (192 nails/pack)	#16 x 1/2" x 1 5/8"	3.98
TOTAL PRICE				15.33

# Labor Time Estimate

- Design: 90 hrs
- Wood/Acrylic Marking: 2 hrs
- Wood/Acrylic Cutting: 2 hrs
- Sanding: 7.5 hrs
- Assembling: 5 hrs
- Applying Stain/Finish: 2 hrs (est.)
- Total Labor Time: 108.5 hrs
  - Includes est.'s

# General Price Summary

- Bill of Materials: \$124.05
- Hardware List: \$15.33
- Labor Time Price Estimate: \$4,882.50
  - Labor Time Estimate: 108.5 hrs
  - Hourly Rate: \$45.00/hr
- 3D Printing: \$657.57
  - Model Material: 130.514 in<sup>3</sup>
  - Support Material: 1 in<sup>3</sup>
  - 3D Printing Material Price: \$5.00/in<sup>3</sup>
- Final Product Price: **\$7,951.23**
  - Total Cost: \$5,679.45
  - Gross Profit: 40% of costs

# Design Value Enhancement

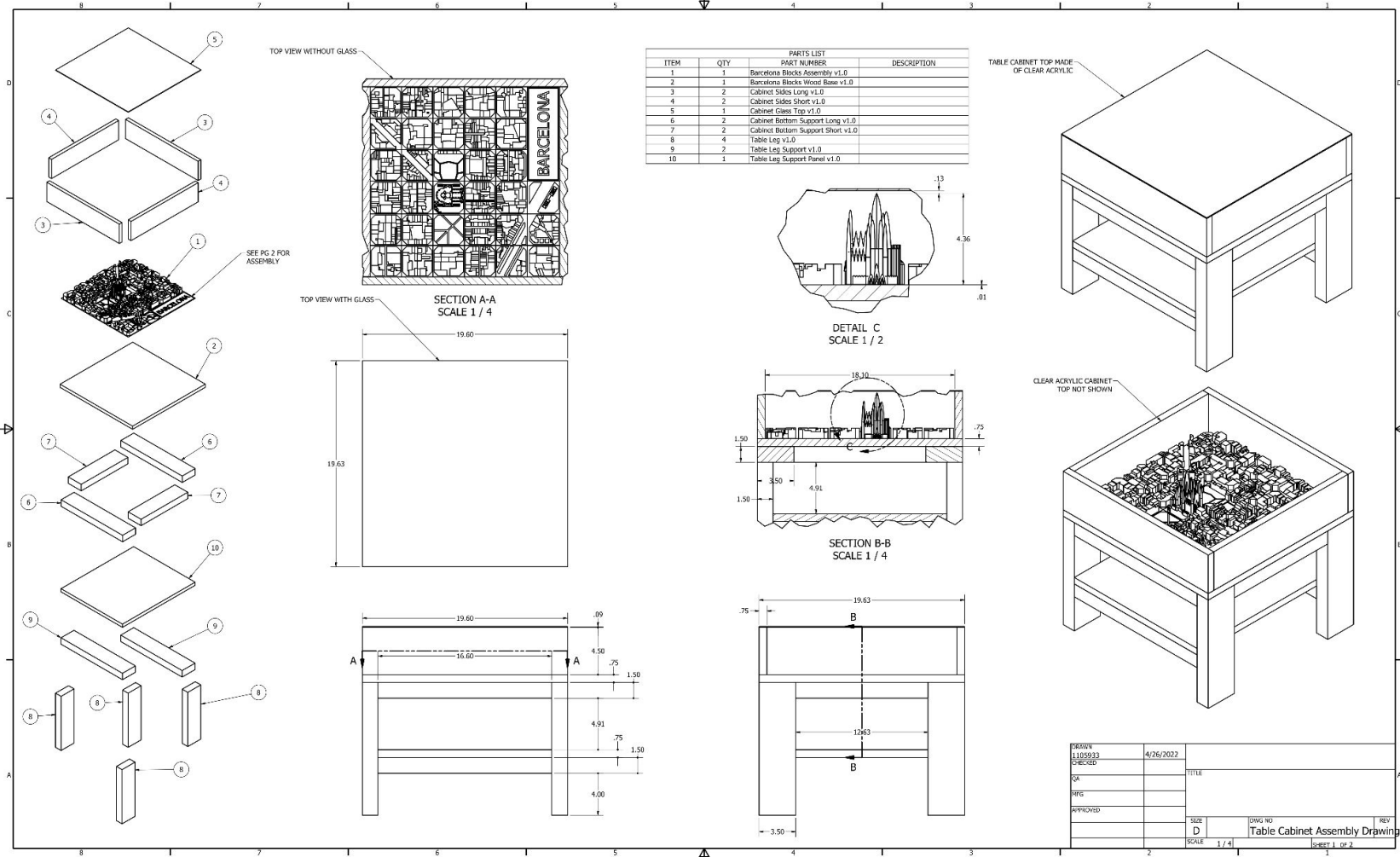
- Add more detail to city model
  - Spend more time adding more detail to roofs
  - Add windows and sidewalks
  - Paint detail on each block
- Add embellishments to table itself
  - Decorative edges offset from edges of cabinet walls
  - Choose better material for legs/supports
  - Make edges of wood used for cabinet sides less visible



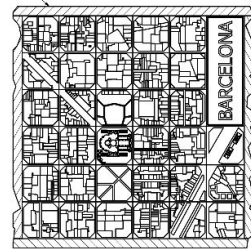
# Design Process



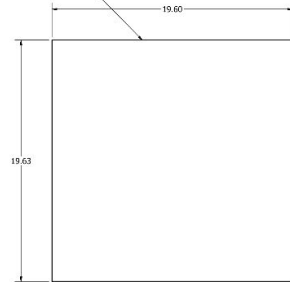
# Presentation Board



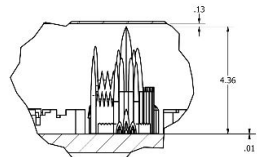
TOP VIEW WITHOUT GLASS



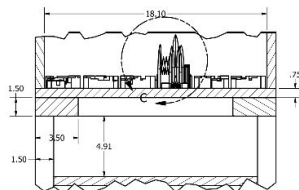
TOP VIEW WITH GLASS  
SECTION A-A  
SCALE 1 / 4



ITEM	QTY	PART NUMBER	DESCRIPTION
1	1	Barcelona Blocks Assembly v1.0	
2	1	Barcelona Blocks Wood Base v1.0	
3	2	Cabinet Sides Long v1.0	
4	2	Cabinet Sides Short v1.0	
5	1	Cabinet Glass Top v1.0	
6	2	Cabinet Bottom Support Long v1.0	
7	2	Cabinet Bottom Support Short v1.0	
8	4	Table Leg v1.0	
9	2	Table Leg Support v1.0	
10	1	Table Leg Support Panel v1.0	



DETAIL C  
SCALE 1 / 2



SECTION B-B  
SCALE 1 / 4

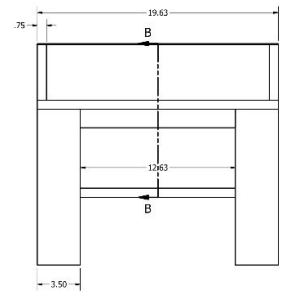
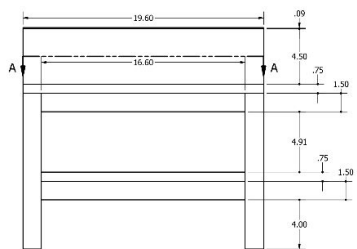
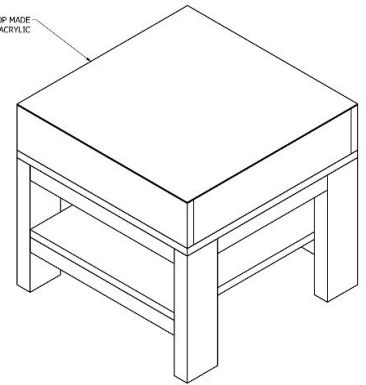
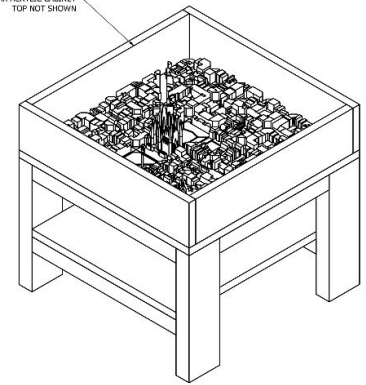


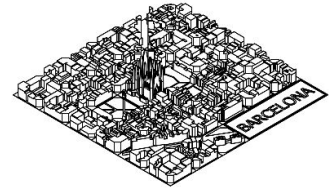
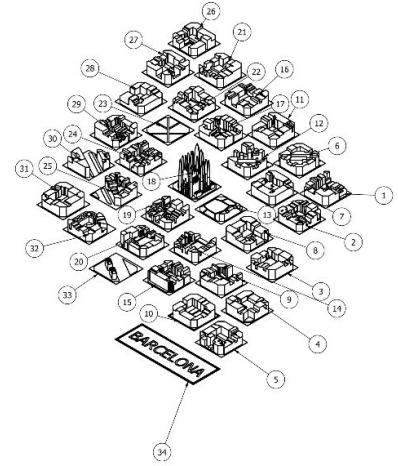
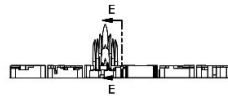
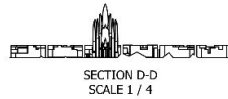
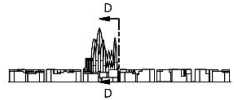
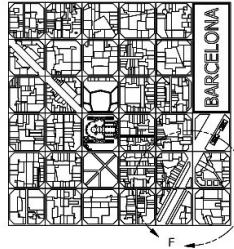
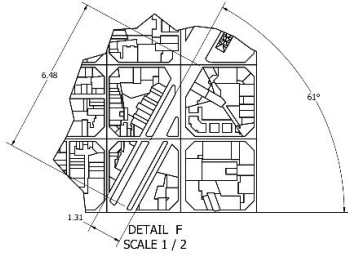
TABLE CABINET TOP MADE OF CLEAR ACRYLIC



CLEAR ACRYLIC CABINET TOP NOT SHOWN



DESIGN	DATE	TITLE	
11059132	4/26/2022		
QA			
REG			
APPROVED		SIZE	REV
		D	
		SCALE	1 / 4
		Table Cabinet Assembly v1.	
		SHEET 1 OF 2	



PARTS LIST		
ITEM	QTY	PART NUMBER
1	1	Block 0A v1.0
2	1	Block 0B v1.0
3	1	Block 0C v1.0
4	1	Block 0D v1.0
5	1	Block 0E v1.0
6	1	Block 1A v1.0
7	1	Block 1B v1.0
8	1	Block 1C v1.0
9	1	Block 1D v1.0
10	1	Block 1E v1.0
11	1	Block 2A v1.0
12	1	Block 2B v1.0
13	1	Block 2C v1.0
14	1	Block 2D v1.0
15	1	Block 2E v1.0
16	1	Block 3A v1.0
17	1	Block 3B v1.0
18	1	Block 3C v1.1
19	1	Block 3D v1.0
20	1	Block 3E v1.0
21	1	Block 4A v1.0
22	1	Block 4B v1.0
23	1	Block 4C v1.0
24	1	Block 4D v1.1
25	1	Block 4E v1.0
26	1	Block 5A v1.0
27	1	Block 5B v1.0
28	1	Block 5C v1.0
29	1	Block 5D v1.0
30	1	Block 5E v1.0
31	1	Block 5F v1.0
32	1	Block 4F v1.0
33	1	Block 3F v1.0
34	1	Block 2F - BP v1.1

DESIGN	4/26/2022		
DATE		TITLE	
BY			
APPROVED		SCALE	1 / 4"
		DWG NO	Table Cabinet Assembly Drawing v1.
		REV	
		SHEET 2 OF 2	