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# Research exercise: Infant Cause and Effect Toy for Bombeck Family Learning Center

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# Infant Cause and Effect Toy for Bombeck Family Learning Center

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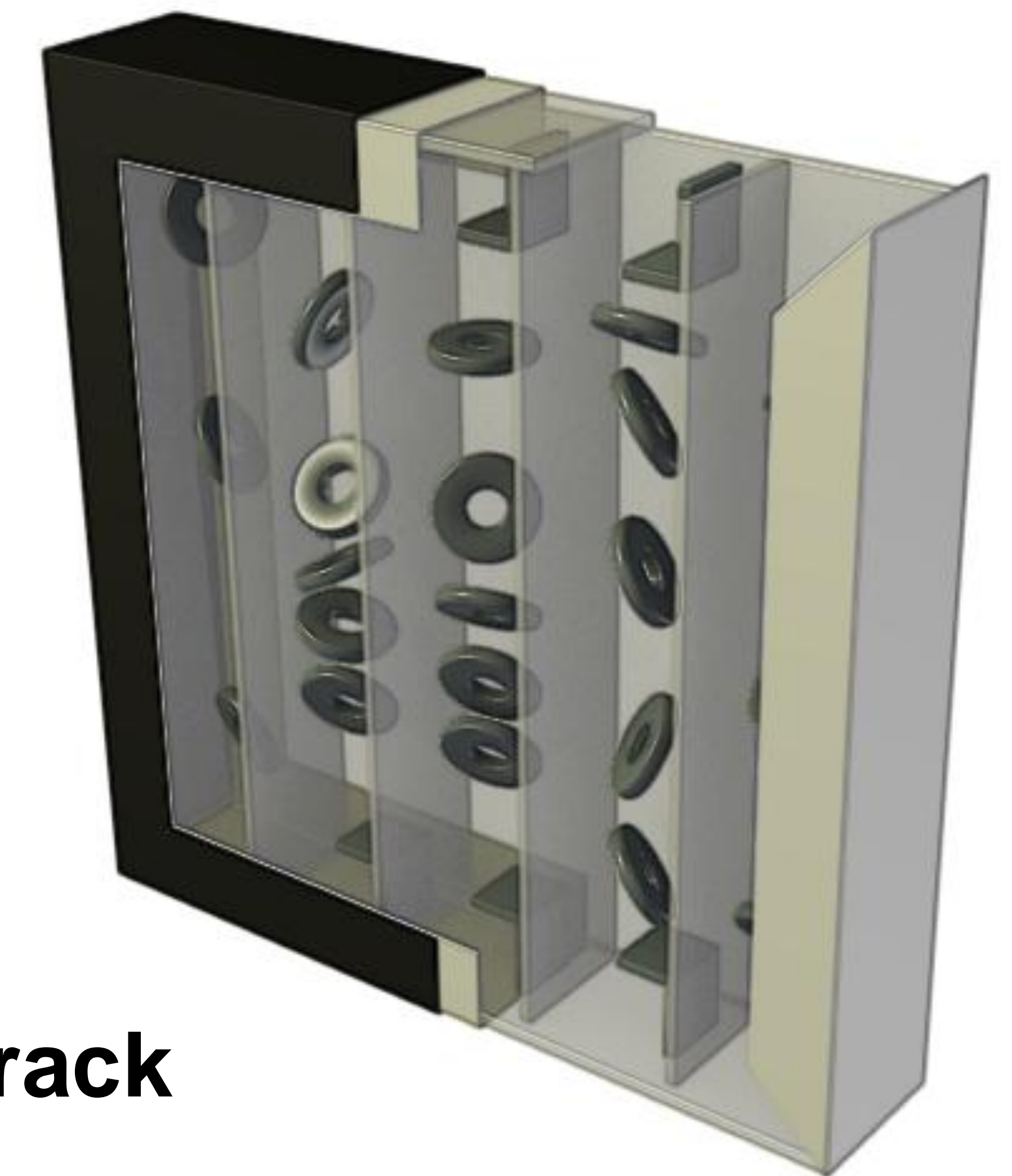
Project Objective: To create a fully functional toy safely demonstrating principles cause and effect to infants 3 to 16 months old

## Design Requirements:

- Fulfill objective
- Be within \$50 budget
- Be constructed with child safe materials
- Easily built within allotted time

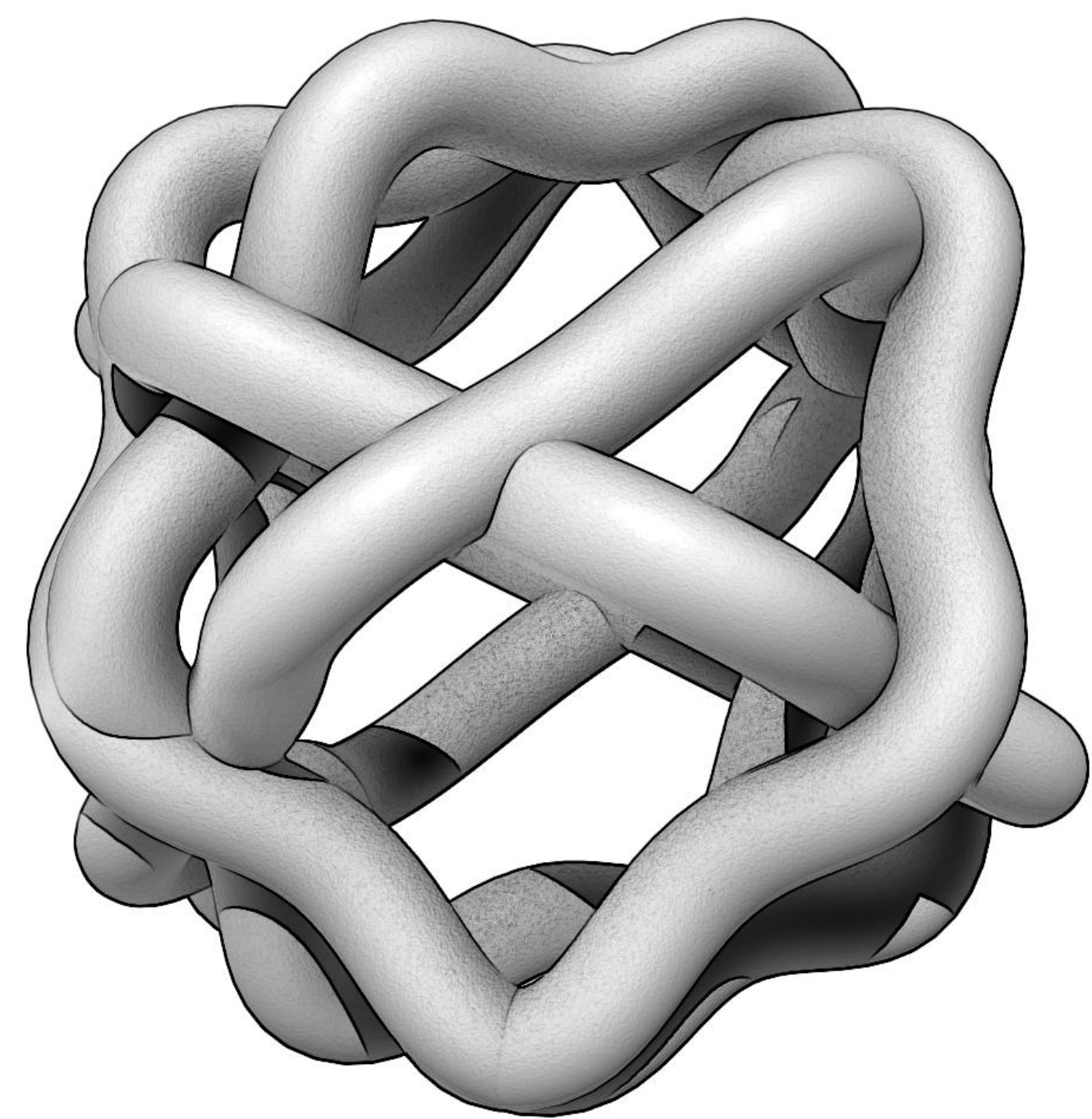
## Final Design:

- 6"x7"x1.5"
- 8 metal chimes
- 20 washers
- Clear, safe plastic with guards on edges

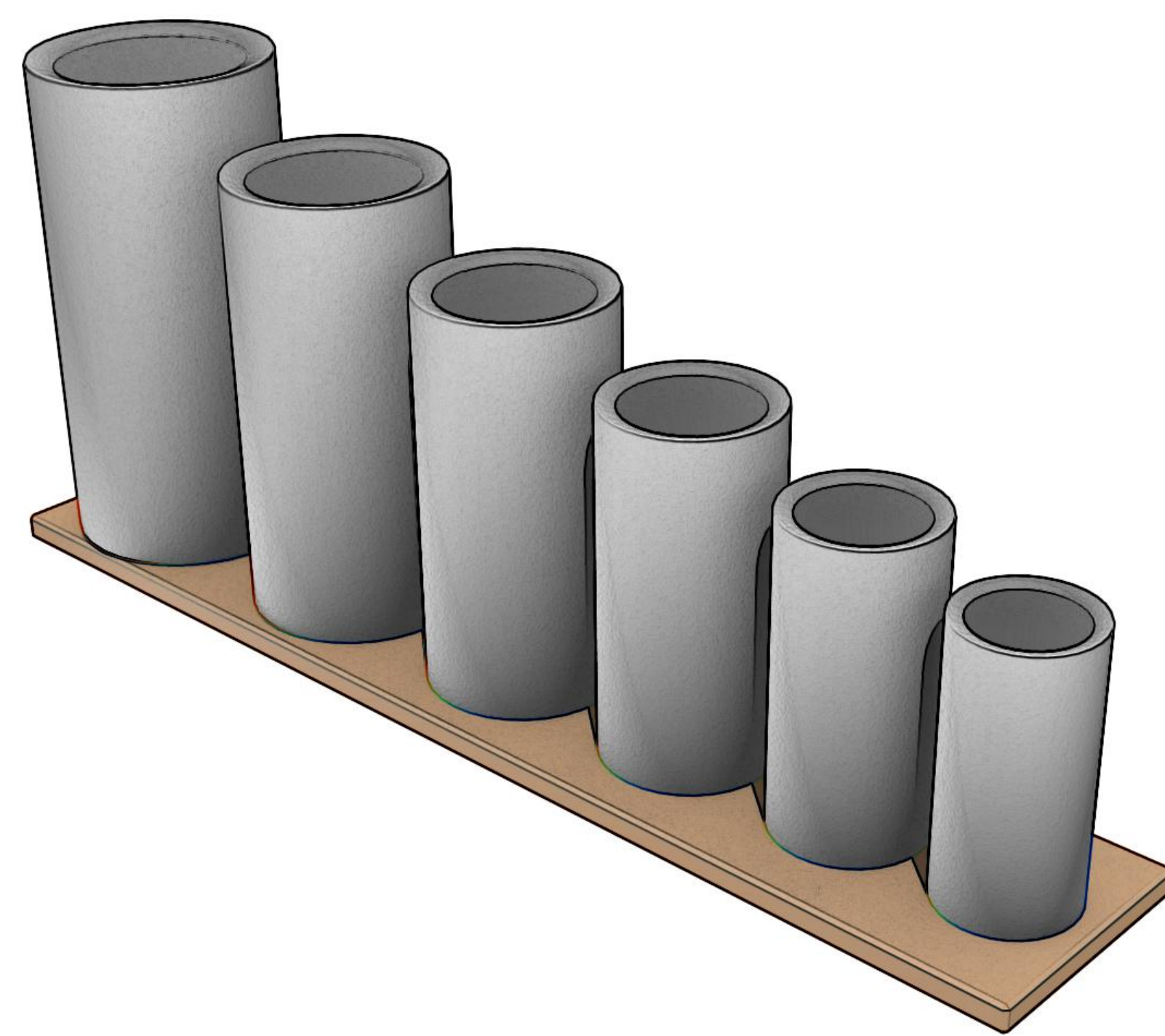


## Designs:

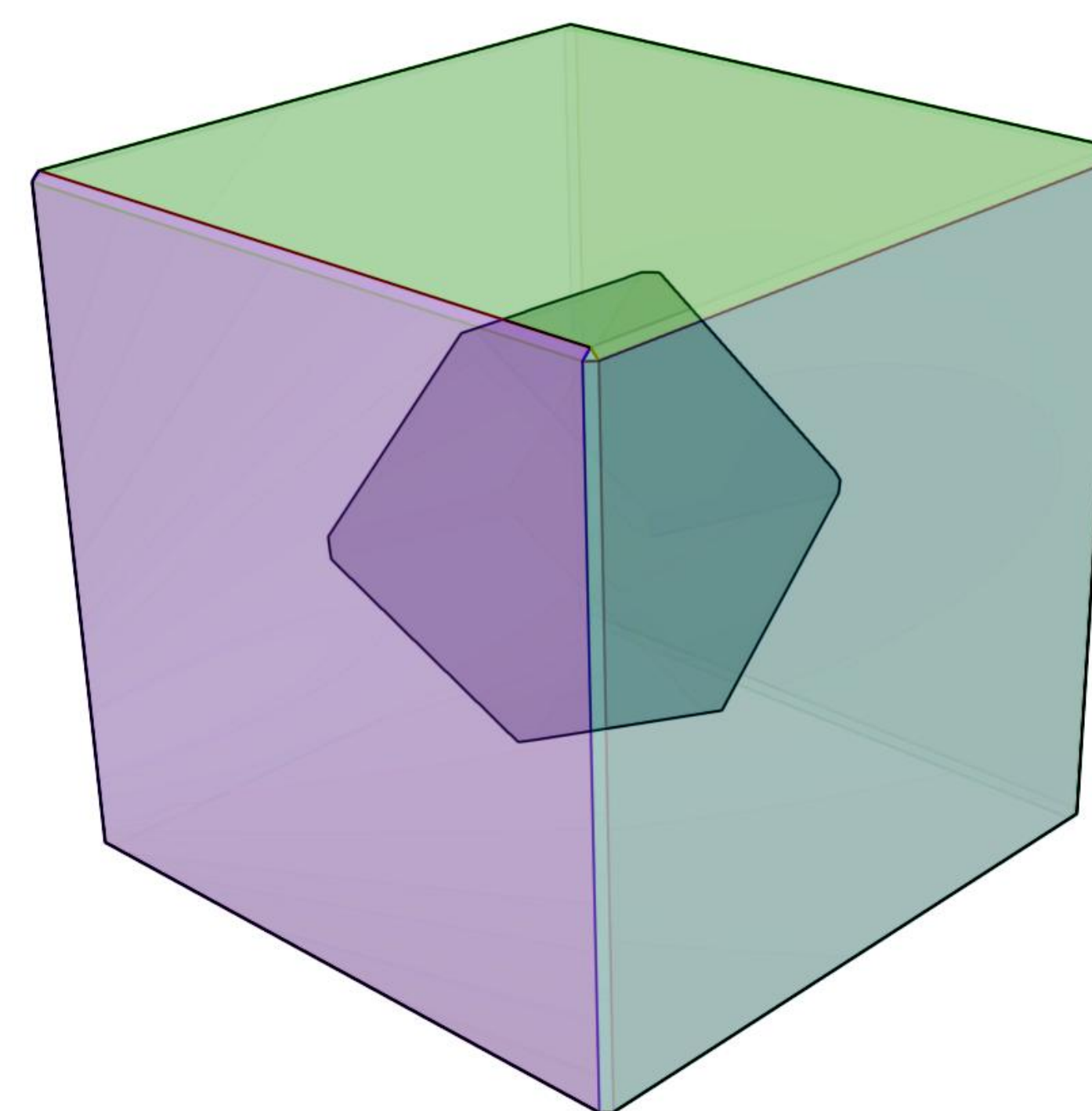
### 1. Interlocking Mesh



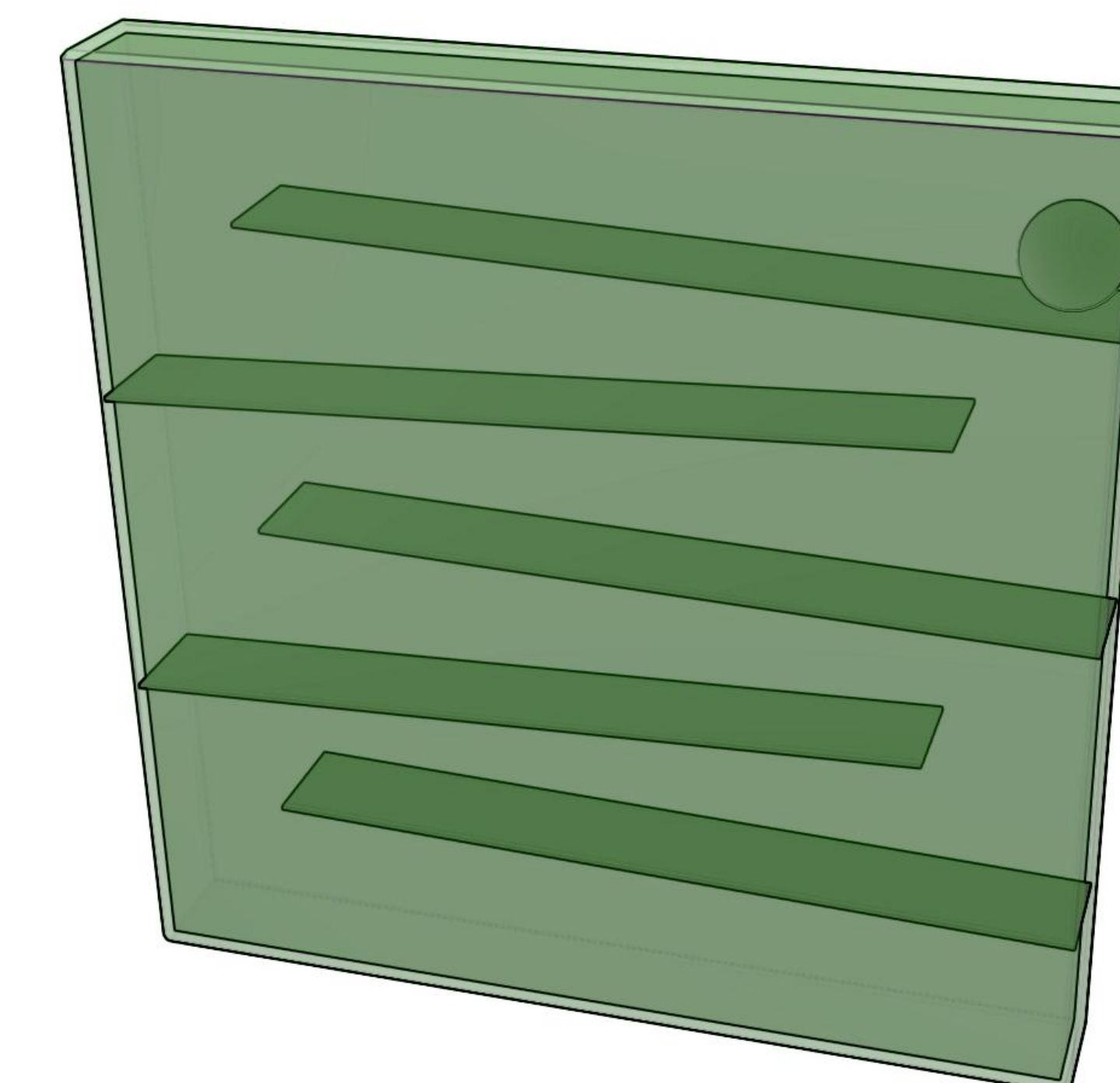
### 2. Resonating Tubes



### 3. Boxes



### 4. Track



## Design Selection Matrix:

	Criteria	Weight	Boxes		Interlocking Mesh		Track		Resonating Tubes	
			Rank	Value	Rank	Value	Rank	Value	Rank	Value
1	Safety	10	9	90	10	100	9	90	7	70
2	Simplicity	9	9	81	9	81	8	72	6	54
3	Cause/Effect	10	10	100	8	80	10	100	9	90
4	Cost	8	7	56	7	56	8	64	7	72
5	Feasibility	3	7	21	6	18	7	21	8	24
6	Size	4	10	40	10	40	10	40	10	40
7	Aesthetics	6	8	48	9	54	9	54	9	54
8	Durability	7	9	63	10	70	10	70	8	72
10	Washable	8	8	64	10	80	8	64	7	56
	<b>Total</b>			563		579		575		532

## Conclusion:

- Results were inconclusive due to inconsistent testing parameters.
- Building techniques need improvements.